

COMMUNITIES, THEIR KNOWLEDGE AND PARTICIPATION

**Cumulative Effects Assessment Management Framework and Mackenzie
Valley Cumulative Impacts Monitoring Program**

Role of Traditional Knowledge, Elders and the Communities: Task 9/6

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for the Gwich'in Renewable Resource Board and Gwich'in Tribal Council**

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1 INTRODUCTION¹

Resource management in the Northwest Territories has undergone a dramatic change with the settling of aboriginal land claim agreements and implementation of the Mackenzie Valley Resource Management Act (MVRMA). The land claims and the MVRMA ensure that aboriginal organizations and the general public have a greater say on how resources are managed in the Northwest Territories (NWT).

From the MVRMA two separate initiatives were established to manage and monitor cumulative impacts: 1) the Cumulative Effects Assessment Management Framework (CEA) and 2) the Cumulative Impact Monitoring Program (CIM). Both initiatives required the use and incorporation of aboriginal Traditional Knowledge (TK). The challenge for government and aboriginal organizations was to determine what was TK in reference to cumulative effects assessment management and cumulative impact monitoring and determine how it could be best be used.

This project addresses how to use and incorporate TK into CEA and CIM by looking at current practices and policies used in resource management and asking community members (Elders and others) how to best incorporate their knowledge. The project also looks at how youth in the north can learn about cumulative effects and impacts and how they can be involved in these initiatives.

The project also address community capacity concerns, ways to collect and use TK, concerns about intellectual property rights and ways to integrate TK with other knowledge used when assessing cumulative effects and impacts. The project is not an exhaustive review of TK and how it can be used to address cumulative effects and impacts in the north. The project focuses on the Gwich'in Settlement Area (GSA) and selected other organizations in Nunavut, Northwest Territories and Yukon. Conclusions derived from the GSA will hopefully provide insights into how TK from other areas in the NWT can be used.

This project was introduced to the communities as the “Community-Land Relationship Project”. The original title was “Cumulative Effects Assessment Management Framework (CEA) and Mackenzie Valley Cumulative Impacts Monitoring Program (CIM), the Role of Traditional Knowledge, Elders and the Communities: Task 9/6”. The modification to title allows community members to better understand what the project is addressing and builds a link between the people and the land.

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2 HOW THE STUDY WAS DONE

Completing this project required the use of three main methods:

- a) literature search on TK and its use to address cumulative effects and impacts,
- b) a survey to organizations asking how they currently use TK for resource management or impact assessment, and
- c) workshops to discuss with community members how they feel their knowledge should be used in addressing cumulative effects and impacts.

Initial work required a literature search into TK how it is defined, how it has been used and concerns about its use. The TK use survey addressed what policies are in place regarding its use, and how it is being used in the NWT and other jurisdictions. The survey was drafted and sent to government, co-management boards, companies and organizations to identify how they currently use TK to manage resources, assess cumulative impacts or cumulative effects. The survey asked six general questions on the use of TK and any problems with its use (Appendix 9.1). Most surveys were also followed up with a telephone call to answer any questions and ensure that people received the survey. Survey results are summarized and presented for discussion. The survey was not designed to provide concise, quantitative results, but rather an indication of how groups may be using TK input.

A large part of the project involved facilitating community “Traditional Management Workshops”. The workshops covered: 1) traditional management practices, 2) importance of wildlife to the community, 3) communication among community members when using resources, 4) wildlife management concerns, 5) traditional knowledge, 6) present day resource management, monitoring and assessments of cumulative effects and impacts, 8) community training and capacity development needs, 9) future needs and concerns regarding resource management, and 10) recommendations.

Traditional Management Workshops were held in each of the four communities in the Gwich'in Settlement Area. In Aklavik, Fort McPherson and Tsiigehtchic the workshop participants were broken into two smaller groups that worked independently to allow more individual participation and input. Inuvik participants were kept in one group because of the low number in the group. Workshop reports were completed after each workshop and for each working group.

3 CURRENT PRACTICES AND PROCEDURES FOR INCORPORATING TRADITIONAL KNOWLEDGE INTO RESOURCE MANAGEMENT OR ASSESSMENTS IN THE NWT, NUNAVUT AND YUKON

3.1 Literature Review

The literature review identified that there was limited writing on the use of TK to address cumulative effects and impacts. There is however, considerable literature on general TK issues (Berkes, 1993; Agrawal, 1995; Freeman, 1979, 1992, Augustine, 1997; Sherry 1998) the use of TK for renewable resource management (Freeman 1985, 1989; Fiet, 1988; Gadgil and Berkes, 1991; Wolfe et al., 1992) Notzke 1994; Berkes et al.1995, Gombay, 1995; Berkes and Henley, 1997; Charlie and Clarkson, 1999), impact assessment (Shapcott 1989; Nakashima, 1990; Howard and Widdowson, 1996; Stevenson 1996, 1997; Clement, 1997; Usher, 2000) and concerns of how TK may be used or protected (Brown, 1998; Irlbacher 1997).

The literature review did confirm that there is a legislated requirement to use TK when addressing cumulative impacts and resource management (MVRMA, 1998; Canada - IFA, 1984; GLCSA, 1992; SLCSA, 1993; SARA (in prep.)). However, the references in the MVRMA, SARA and land claim agreements do not define what TK is or how it should be used when addressing cumulative effects or impacts.

There is a need to include TK, however, the confusion regarding how to accomplish this task is the focus of several papers and this project. Many First Nations and governments are drafting guidelines and policies on how TK should be collected, used and acknowledged (Hart 1995; Dobrowolsky and Ingram 1991; Tobias 2000; Sherry 1998). With the implementation of the MVRMA there are additional challenges to the regulatory process when attempting to determine how to best include TK or any community knowledge.

The existing legislation (MVRMA, GLCSA, SLCSA), most of the literature on TK, and groups/government involved in resource management, resource development regulation and aboriginal groups, all agree that TK should be used. This paper makes recommendations on the definition of TK and how community members can provide their knowledge for use in cumulative effects and monitoring.

The most recent examples of where TK has been mentioned and required as a condition have been in development project approval conditions (BHP, Diavik, Voisey's Bay). Panels reviewing the development projects have specifically stated that community input and TK are required as part of the approval and on-going monitoring program.

3.2 Traditional Knowledge Use and Policy Survey

To determine the current status of TK use and policy or guidelines in the NWT, Yukon and Nunavut, we drafted a survey and sent it to approximately 40 departments, boards, companies and organizations. Of the 40 surveys sent, 20 replies were received. The survey responses came from: government, co-management boards, regulatory boards, aboriginal organizations, industry, environmental organizations and private consultants.

Many of the responses to the survey were generalized and did not specifically address cumulative impact monitoring or cumulative effects assessments, but rather referred in general to their use of TK in their operation and mandate.

The results of the TK use and policy survey are summarized based on the questions that were asked in the survey.

What are your organization's policy and/or operating procedure with respect to monitoring and assessments of cumulative effects within your jurisdiction?

No organizations contacted had a policy or operating procedures that covered how cumulative impacts are addressed. Regulatory and co-management boards referred to the Mackenzie Valley Resource Management Act and applicable land claims Acts that provided direction or guidelines for addressing cumulative impacts. Most organizations contacted were aware of the need to address cumulative impacts, but were unsure of how this could be done or felt that it was not their current mandate.

Does your organization currently consider TK in the monitoring and assessment process? If so how and when does this occur?

Every organization contacted said that they use or require TK input during their operation or regulation of development. How TK is used varied among the groups contacted. Aboriginal organizations felt that their members provided TK when they were asked to comment on resource management or impact assessment projects. Co-management organizations stated that community members on their boards or committees brought their knowledge to the table when discussing management and impact assessment concerns. Other groups felt that during community consultation they received TK input and considered this input in project development and assessment.

Most groups used or required the input of TK, but did not have a formal policy stating that TK must be used. Some regulatory and co-management groups formally required TK input as part of their approval or funding applications. Some regulatory boards used community conservation or management plans that had TK input when they were drafted to help them make permit approval decisions.

One government department felt that in most cases they were using local knowledge (LK) rather than TK, because the information they needed was based on direct observation of people currently on the land or harvesting resources. This point further supports the need to clearly define the type of knowledge received from communities.

In your experience have there been any privacy issues respecting the disclosure and use of TK in your organization's processes?

Aboriginal organizations felt strongly that any information or TK from community members belonged to the community and people and only that information people feel comfortable releasing should be public knowledge. Some aboriginal organizations felt that they should collect and present any TK needed for development projects, while other organizations felt that community people should be contacted directly. Aboriginal groups were concerned that information could be used out of context. As community members are being asked for their input on more and more management plans and development projects some aboriginal groups were establishing protocols to collect and release information and requiring the use of consent forms and payment to TK holders.

All other groups stated that they had not experienced any privacy concerns regarding information or TK from community members. Some groups felt that privacy issues may not have been a concern because of the type of information requested and the fact that community members wanted to ensure that their resources were well managed. Other groups felt that there were no privacy issues regarding community knowledge or TK because community members were partners in the organization and their role was to bring their knowledge to the table. Organizations that worked closely with communities as partners in a project had no privacy issue concerns as the communities felt comfortable and had control of what information they were providing.

Some groups stated that payment for TK was an issue and was resolved so that information could be shared. There were no set guidelines on how much TK holders should be paid and who should be paid. Most organizations contacted felt people should be paid for their time and that it may not represent a payment for the TK provided .

In your opinion, should the opinions, observations, experience and traditional knowledge of hunters, trappers, and fishers receive special consideration in the cumulative impact monitoring and assessment process?

Some of the aboriginal groups contacted felt that TK should be given special consideration as it often provided more depth and included more longterm observations of the land and wildlife. Other groups felt that TK was important, but should be considered equally with other information when addressing resource management or impact assessment concerns.

Concern was expressed that TK was not always available to address specific topics or areas and that groups sometimes needed to make special efforts to get TK input.

In your opinion, is TK important in cumulative impacts monitoring and assessments? If so how can TK be made available to organizations involved with monitoring and assessments?

All groups that responded felt that TK was important for addressing cumulative impact monitoring and assessments and other resource management. The means of making TK available to organizations involved with monitoring and assessments varied considerably. Most groups felt that the best way of getting TK input was to involve those people that had the TK. Involving people or families that have TK and experience with specific areas or species is the best means to get relevant information. Those people still spending time on the land and have recent observations are the best sources for TK.

Some groups responded that a searchable data base assisted in making TK available to organizations even if it identified who should be contacted for information in the communities. Other groups felt that partnerships or agreements with aboriginal communities or organizations were the best ways to make TK available for projects. Recording TK on maps or a GIS system was recommended by several groups. Collecting or seeking TK input for specific issues is a better means to get relevant TK as it ensures that TK is not taken out of context and the TK providers are more informed on what they are providing information for.

What if any problems have you encountered when using TK in cumulative effects/impacts monitoring and assessments?

This question was answered in relation to general use of TK and not specific to cumulative effects/impacts monitoring.

Some groups felt that they had problems including TK in their work because there were no formal policies on how TK should be used. This resulted in problems, as people were not sure how to incorporate TK and lead to inconsistent use of TK. Other groups felt that there were still credibility issues concerning using TK and that people were hesitant to use TK or accept it as a valid body of knowledge.

Aboriginal groups stressed that it takes time to collect TK and other groups commented that time needed to get TK was not always available. Because TK is a body of knowledge shared with people that have long standing relationships and in most cases depended on each other for survival, it is not always available in a “ready to use” format.

Some organizations reported problems with TK gaps as they could not get information on some of the aspects they were dealing with because community people were not familiar with certain aspects of an animal’s life history, or certain areas.

Some groups felt that problems could be avoided by including aboriginal communities or groups in the project from the start and maintaining a close partnership or working relationship.

3.3 Traditional Management Workshops

Traditional Management Workshops (TMW) were held in each of the four Gwich'in communities to determine how the Gwich'in traditionally managed wildlife, fishery and forestry resources. The results of the workshops identify how the Gwich'in depended on the land and this provides some insights on what to monitor for when considering cumulative effects.

“Long ago people lived close to the land and took care of it, respected it, because it is what they depended on. It is the only resource they had. Caribou, moose, fish and all that stuff.” Charlie Snowshoe, Fort McPherson

TMW dates in the communities were:

Fort McPherson on January 16-18, 2001;

Aklavik on January 29-31, 2001;

Tsiigehtchic on February 15-17, 2001; and,

Inuvik on February 12-14, 2001.

The purpose of the TMW was to meet with community members and discuss traditional management practices used in the past and present. The TMW were also used to discuss environmental monitoring and assessments, and to identify what the communities felt were important to protect the biodiversity of the Mackenzie Valley. The workshops also identified how the communities felt they could best contribute their knowledge for resource management, cumulative impact monitoring and cumulative effects assessments.

By reviewing the fundamentals of community values, traditional practices, communications, we are able to get insights into how communities function and this helps to understand how community knowledge can be used when considering cumulative impact monitoring and cumulative effects assessments.

“Respect for the land is also respect for each other”. Annie Modeste, Fort McPherson

During the four workshops a total of 47 community members participated (Inuvik – 8, Aklavik – 10, Tsiigehtchic – 18, Fort McPherson – 11). Participants included community elders, community leadership, youth, RRC Councilors and RRC Coordinators. The results of the TMW are summarized below by topic area. Full reports from each of the workshops are available from the GRRB office. A sample of one of the reports is included in this report in Appendix 9.2 (Fort McPherson Results - Group 1).

The TMW's were co-facilitated by Donald Andre and Lee-Ann Chevette as she was working on a Gwich'in Traditional Management Principles project. Her report to the World Wildlife Fund provides more detailed information on how the Gwich'in

traditionally managed themselves in respect to resource use (Gwich'in Tribal Council, 2001).

3.3.1 Traditional Practices

Traditional practices can be summarized into four areas: 1) Respect – for the land, wildlife and each other, 2) Sharing – of food from harvests and information about the land and wildlife, 3) Teaching of traditional ways – for harvesting and using wildlife and taking care of the land, and 4) the role of Elders, community leaders and parents in using and passing on traditional practices to the next generations.

Respect for the land, wildlife and each other was raised at all of the workshops. It was important to respect wildlife and the land, to use everything you take and not to waste. It was also respectful to keep your camp and hunting site clean and properly cover or burn any parts not used. Showing respect to wildlife meant not bothering it or making fun of it. It also means giving wildlife and the land a rest and not over harvesting. Respecting each other was important and ensured that people cared for each other and that the group survived in hard times.

“It was taught when you were a kid. You weren’t allowed to do things to animals to disrespect them. It was right around you in everyday life, as part of your environment. You were taught it and didn’t question it. You were always reminded about it.” Donald Andre, Inuvik

“Anything that you have to survive by you don’t make fun of them you know. You don’t go out making fun of food that you have to eat to survive because it will backfire on you someday and if you’re hungry and you’re weak and everything, that animal will do the same to you eh.” Mabel English, Inuvik

“Wise old men tell the people not to kill too much caribou, just enough for them to live on. I would like to see in the future our younger generation learn as much as they could from their old people: to be careful with caribou, not to shoot them for nothing, just as much as they need.” Mary Kendi, Aklavik

Sharing food kept the community together and helped to make sure that no one starved. Sharing a harvest was suppose to bring good luck to the hunter and help him during his next hunt. Sharing also helped those that were no longer able to hunt or had people to hunt for them such as widows or Elders. Besides sharing of food, information about wildlife and the land was also shared so that the community could learn and pass on knowledge about the area.

“In the past everything was shared. Long ago if you got something you shared it and then some day you might not have anything and the other guy would get something and share it with you. So it works both ways.” Willie Simon, Inuvik

Teaching traditional ways to youth was how knowledge about wildlife, the land and Gwich'in values were passed on from one generation to the next. Youth were taught

respect, sharing, proper hunting practices and how to live on the land. The whole community played a role in ensuring traditional practices and values were passed on to younger generations.

“A lot of old peoples in the past, they were wise. They knew what’s going to happen. They had to. This traditional knowledge is very important to pass on to our younger peoples.” Robert Alexie Sr., Fort McPherson

“ When a person is young the Elders are doing the hunting and they teach us how it should be done and even how to shoot.” Cecil Andre, Tsiigehtchic

Elders, parents and community leaders (Chiefs) played a key role in ensuring that traditional practices were an important part of how the community functioned. As teachers and mentors, knowledge sharers, and enforcers, the Elders, parents and community leaders were vital to keeping the traditions alive.

“At one time, the land and everything on it...the birds, the fish, the animals, the plants, the stars, and our ancestors, the Dinji zhuh (the Gwich’in) were all part of one world. In this way the Dinji zhuh for many, many centuries lived on the land with the seasons. Sometimes life was good and sometimes it was very difficult. Over the centuries, our ancestors crafted their shelters, tools, and made their medicines from the trees. They learned the ways of the birds, the fish, the animals, and the weather to survive. Over time our ancestral mothers, fathers, grandmothers, and grandfathers passed this knowledge and their stories to their sons and daughters so they too could use it and pass it on to us.” Alestine Andre, Gwich’in Social and Cultural Institute

3.3.2 Importance of Wildlife

All of the workshop participants concluded that wildlife is still important to the people in the communities. The main use for wildlife is for food and those species harvested for food are the species people are most familiar with. Historically people depended on fish and wildlife for survival and traditional foods are still important today. Other uses of wildlife included income from trapping or hunting of furbearers, clothing (hides, fur and trim) and traditional medicines.

“The creator gave it for us to live on. Just like down on the coast, he gave whale or seal or muktuk to live on. For us it’s caribou. Some places it’s cows and goats. It’s all different. This caribou is for all the Gwich’in people across Yukon, here (NWT) and Alaska.” Neil Colin, Fort McPherson

Participants also felt that harvesting wildlife helped them maintain a traditional lifestyle of being on the land. When on the land they felt better, less stressed and more independent.

“Years ago, the people of Fort McPherson were very hard working people. Summer, winter, fall and spring was filled with different kinds of work....When

fall came the people were all ready for the winter. Again, the same things were done. Every day the man of the house did hard work, his wife did the same. The children helped. Life was very good in those days. Today, we have everything and yet our life is not as good as it was in the early days.” Charles Koe, Fort McPherson

3.3.3 Communication Among Community Members When Using Resources

Communication among community members in the past, and today is still important for learning about wildlife and successful harvesting. In the past people freely shared information among each other because it helped each other survive. There was a greater dependence on other community members to learn where moose or caribou might be and people often hunted together and shared what they got. Some workshop participants felt that there was more and better information about wildlife and the land in the past as people were spending more time on the land. Other participants felt with increased plane traffic, roads, snowmobiles and satellite collars, that there was more information on wildlife today.

“There’s technology that people invent and people depend on that, but don’t forget there’s something we talk about-our old native tradition.” Neil Colin, Fort McPherson

“You didn’t want to damage relationships or communication, because people depended on one another, not only for food, but also for supplies. If you needed something, people always shared.” Donald Andre, Inuvik

The biggest change that participants have seen is that people are more independent today because of increased access (roads) and easier travel on the land (trucks, snowmobiles, planes). People do not need to depend on each other like they did in the past. Overall, people still thought it was important to share information about wildlife and harvesting, but Elders and Chiefs do not play the same role as they did in the past when it comes to organizing hunts and telling people where to go.

“Today you get information on radio, bush radio, TV, newsletter, but long ago it was different. People had hunches. “Boy I slept good, I dreamt good. Something’s close by, I’ve got a hunch. I think I’ll go up Stony Creek. It’s bothering me, my shoulder where I shoot, it’s really moving. Maybe caribou coming”.” Neil Colin, Fort McPherson

3.3.4 Wildlife Management Concerns

Workshop participants felt that community members have always been concerned about the status and health of wildlife populations in their area. In the past any concerns were discussed among harvesters and brought to the attention of the Chief. The Chief would consult with Elders and other community members and would often call a community meeting. As government offices were set up, “game wardens” began playing a greater role

when dealing with wildlife concerns. Today the RRCs, DRWED, and co-management boards all address community concerns about wildlife.

“It’s always controlled. You know what you need. You can’t kill more than that. Chief will find out: “You stop right there!” Chief will come to tell you to give this guy some or whatever.” Woody Elias, Fort McPherson

Participants felt that wildlife populations were affected by several things including fire, predators, hunting, and weather. In the past areas were let rest if wildlife populations seemed low. People also let areas rest by moving around with the caribou as the caribou would use different areas each year.

“Our people at one time were like the animals. Look at the wolf. A wolf will go after caribou, but doesn’t go after it just to slaughter it- it only takes what it needs. Wolf is an example to show how it took care of animals. Helps keep the population in balance. That’s the same thing with our people. We take care of the animals and our traditional knowledge of looking after the land and the environment.” Charlie Snowshoe, Fort McPherson.

3.3.5 Traditional Knowledge

At the beginning of each session on traditional knowledge the group reviewed the recent definition of TK developed by the Gwich’in Social and Cultural Institute (GSCI):

Traditional knowledge is a cumulative body of knowledge, values and beliefs, handed down from one generation to another, which has been learned through experience and observation from the land and from Gwich’in oral tradition.

Workshop participants felt that TK was important for wildlife management and cumulative impact monitoring and effects assessment because it was what the community members knew, it was their knowledge about wildlife and the land. TK can provide longterm information about wildlife or an area as people have been living in the area for generations. TK looks at all aspects that affect wildlife and the land and this results in a more comprehensive picture of what is out there. A lot of TK is common sense and helps people in the communities respect wildlife and the land. TK is a way of living with wildlife, a part of the Gwich’in culture that has been passed on from previous generations.

“Traditional knowledge is something that’s in you, like a spirit. It is more than something you learn, it is who you are.” Grace Blake, Gwich’in Social and Cultural Institute

“Traditional knowledge is important because it was the only way you could survive. It was the only way you could get to those animals. Animals are not stupid.” Neil Colin, Fort McPherson

It is important that this knowledge is used when making decisions about the land and that it is passed on to the youth in the area so that it is available for the future. Community members should be consulted for their knowledge on specific areas or issues to ensure that TK is not taken out of context or used inappropriately.

“We usually go down with dog pack, Black Mountain, that’s when we get the bulls, that’s when its not mating, in August, They wouldn’t bother caribou in November when its mating, no way. You wouldn’t see anyone around the mountains.” William Teya, Fort McPherson

“They were always moving around so they didn’t clean out one place year after year, because they want some more there next year, or whenever you come back again.” John Norbert, Tsiigehtchic

3.3.6 Present Day Resource Management

Present day resource management has become considerably more complex than in the past when a community was lead by the Chief. The current situation of government departments, regional co-management boards, and community renewable resource councils has some people confused about who does what and results in taking a long time before any action takes place. Most workshop participants felt that the communities should have as much local control as possible and work together with boards and government departments.

Participants felt that Elders and harvesters have the responsibility to pass on TK and traditional practices to ensure youth learn the skills they will need to live on the land and will some day be able to pass on these skills and knowledge. Harvesters play a special role as they are the ones currently active on the land and are acquiring new knowledge about wildlife and the land everyday. Harvesters need to ensure they pass on this knowledge. Harvesters are also in a good position to act as monitors as they are active on the land and are able to see any changes.

“It is still important that we take our children out on the land, that we teach them to enjoy and respect the land and wildlife. With our traditional knowledge, you will have a better life today and will be able to pass it on to our future generations.” Mary Kendi, Aklavik, GEKP Interviews, 1996

3.3.7 Monitoring and Assessments

Workshop participants felt that the communities and community members should be involved in all aspects of monitoring from deciding what should be monitored, how monitoring would take place and doing some of the monitoring. Community members that are active on the land and know the area and TK would make the best monitors as they would recognize any changes. Community members that have experience on the land would also know what things were like in the past and what normal conditions would be like. By knowing the local conditions and fish and wildlife populations, community members have a better idea of what may be threatened in the area with any changes to the land or environment.

“We’re trying to manage the number of caribou in the fall to let a certain number (the leaders) pass over, because we’re thinking about in the springtime, if you see them up around the Arctic Circle in the 1st part of September and you start bothering them they’re going to go further out and in the springtime they have to go around Engineer Creek. That’s why we were concerned about that two years ago. Still got to be worked out but at least we’re trying to manage.”
Peter Kaye, Fort McPherson

Participants also felt that community monitors should get proper training to ensure they are monitoring and recording what they are monitoring properly. Monitors need clear and detailed job descriptions to ensure they are monitoring what is needed. In the past monitors were often “token” and did not have any specific tasks or responsibilities. Monitors should have responsibilities and authority to make decisions about a project when they are concerned about impacts on the land.

On projects where the community is monitoring local conditions/fish/wildlife, Elder and youth teams could be used to help ensure TK is passed on to the younger generations. This would also give youth a chance to learn more about the land and learn about monitoring.

Concerning assessments, participants felt that community members should be hired to help with impact assessments and cumulative effects assessments for the same reasons as they are able to assist and conduct monitoring.

Sharing of TK was not a concern in regards to cumulative impact monitoring and effects assessments. When workshop participants were asked what concerns they had about sharing TK, the only concerns mentioned related to TK about medicines and some wildlife trapping techniques.

3.3.8 Training and Capacity Building Needed

Workshop participants strongly felt that the time and resources needed for training should be provided as part of an overall development project proposal. If monitors are needed, proper training should be provided to ensure community members are hired. Community members with experience on the land can provide TK about the area and wildlife. Participants were concerned that youth did not have the necessary skills to provide TK or work as monitors and felt that there needed to be more programs to ensure that youth have opportunity to learn TK and proper monitoring skills. Elders and youth could work together on monitoring projects so that youth could receive the TK training needed.

“In the past people were more knowledgeable (about animals). They knew lots but there’s very few of us know that now. Very few. We try and teach the young peoples.” Robert Alexie Sr.

3.3.9 The Future

Workshop participants discussed the importance of taking care of the land, concerns about wildlife, and what communities members would have to do to maintain strong ties with the land in the future.

In all of the workshops participants expressed the concern that people were spending less and less time on the land and that fewer people were going on the land because of other time demands. As communities were established with government housing, social assistance programs and wage economy, there was less need to go out on the land and try to make a living. It was also much more financially rewarding to take a job in the communities. All of this meant fewer people were spending time on the land.

With fewer people spending time on the land, this meant less information (Traditional Knowledge) was being shared and information was being lost as Elders passed on. All of the workshops suggested that more on-the-land programs for youth needed to take place throughout the year so that youth could learn more about the land. Better access to funding for these programs was needed to ensure they would take place.

“Whatever your parents did, you helped them. You learned everything right there. Today it is not like that. Kids go to school. I don’t think any kids know anything about what to do out there on the land. No time to go out. The only way to teach them how to live on the land is to take them out with you and do it with them. That’s the only way, but they don’t do that often enough. We always say that there’s no money for that.” Gabe Andre, Tsiigehtchic

Concerning monitoring for cumulative impacts and other changes on the land, participants felt that it was important to identify what needed to be monitored and have community people trained to collect information needed for monitoring. Some participants felt that it was important to ensure wildlife habitat, especially critical areas like calving grounds be protected from any development in the future.

3.3.10 Recommendations

Throughout the workshops and at the end of each workshop, participants were asked to make recommendations to address concerns they had about the use of TK, managing resources and cumulative impact monitoring and effects assessment. The following is a summary of the recommendations that were made:

- a) Community members need to be involved in monitoring cumulative impacts and any changes to the land and wildlife. Community based monitoring programs would ensure the use of TK, and involve the people that are closest to the resources and use the resources being monitored. Concerning the monitoring of fish and wildlife species, the easiest to monitor and the best information would come from species that community members use for food as they are more familiar with these species.
- b) Traditional knowledge needs to be passed on to the youth and other interested community members to ensure that it is part of the knowledge that the community has and uses. As fewer people spend time on the land, it is important to support on-the-

land programs for youth and community members and to use Elders to help pass on TK and traditional land skills. Traditional knowledge needs to be combined with the education youth are currently getting to ensure that TK is passed on. Participants felt that a book on traditional land skills would help pass on some TK to youth and other interested people. People in the communities need to practice some of the traditional sharing of information and food as they did in the past as this is how TK was passed on to each other. People depended on each other and therefore shared information and food.

- c) Community members stressed that their knowledge about the land, fish and wildlife should be used for monitoring and research. Community members should be consulted and asked first hand for their input to ensure that the information provided by the communities is used appropriately and not used out of context.
- d) Community members have TK, but require training in monitoring and research if they are to play an active role in resource monitoring and management in the future.
- e) Community members felt the roles and responsibilities of all groups involved in monitoring and resource management needs to be clearly defined so that all groups can work together effectively and that the communities are fully involved in monitoring and resource management.

4 TRADITIONAL KNOWLEDGE, INTELLECTUAL PROPERTY RIGHTS AND CUMULATIVE EFFECTS ASSESSMENT AND MONITORING

4.1 *Intellectual Property Rights Law in Canada*

The law of intellectual property deals generally with copyright, trade-marks, patents, and trade secrets. In asserting an intellectual property right the person claiming the property must be able to describe it with sufficient precision that a third party can know what is being protected. Such a third party would typically be a judge in a court of law who may know nothing about TK. This may be difficult to do in the case of a body of knowledge, traditional or otherwise. Furthermore, the person claiming ownership must have the right to do so.

For example, if a First Nation wanted to protect the traditional knowledge their First Nation members have about caribou movements through a specific area the First Nation would have to clearly identify what knowledge is being protected. This would require collecting all knowledge about caribou movements in the area from the First Nation members, describing it in detail, and prove that the group and not specific individuals can claim ownership of the knowledge. The problem is further complicated as First Nation members continue to add to the knowledge with their own experiences on the land and observations of caribou movements.

4.2 Who can claim ownership of TK intellectual property rights?

The law of intellectual property is narrow in scope. It considers such limiting factors as innovation, uniqueness, utility and, especially, the ability to assert ownership. While it is desirable to protect TK, asserting ownership may not be the best approach. A First Nation may claim ownership of TK, but it may not have sole jurisdiction over the whole area that the TK is known. There may be other branches of the First Nation in other jurisdictions, or there may be neighboring First Nations that share the same TK. To claim ownership of a body of knowledge you must be able to claim exclusive ownership of that knowledge.

For example, the Gwich'in Tribal Council (GTC) has developed a policy to regulate the use of TK, but, the GTC only has jurisdiction within the Gwich'in Settlement Region (GSR) and has questionable jurisdiction over beneficiaries of the Gwich'in Claim or other people in the GSR concerning the use of TK. The TK of the Gwich'in is, in many cases, held equally by the Gwich'in in the GSR, the Vuntut Gwich'in of Old Crow, and possibly those Gwich'in in Alaska. Some Gwich'in TK may also be held by neighbouring non-Gwich'in aboriginal groups, such as the Nacho Nyak Dun of Mayo or the Inuvialuit. It is not possible to claim ownership of a body of knowledge if you cannot claim exclusive ownership of that knowledge.

If the TK is held by all Gwich'in and the GTC does not represent all Gwich'in, then it cannot assert a claim to ownership or control the use of that knowledge. Only a legal entity representing all Gwich'in (NWT, Vuntut, and Alaskan) could assert a claim of ownership if it could be proven that the TK of concern was exclusive to Gwich'in. On the other hand, under Canadian law the GTC could possibly assert a claim to be a 'trustee' or 'guardian' for the protection of Gwich'in TK within the boundaries of the GSR.

Communal ownership of TK presents a whole other problem. If TK is owned by everyone within a group of people (large or small), then it is a form of "public" knowledge and protection of that knowledge under intellectual property rights law is impossible. If everyone in a group has ownership of TK each member of the group is able to decide what they would like to do with that knowledge. They can share it, sell it, or decide to keep it to themselves. The variability of TK within a group of people would make it impossible for any umbrella group or political representative organization to control how individuals within the group use or disclose of that knowledge.

Corporations, universities and governments will claim ownership of knowledge collected by their employees by virtue of having paid for the collection or development of the knowledge and having paid the employees to work on specific tasks. In all cases individuals upon employment will sign contracts with the employer stating they have no personal claim to the knowledge they may be collecting or developing through research while employed and after employment. This type of control would not be desirable or possible for TK held by aboriginal people.

The nature and origin of TK also makes it difficult to protect with any form of intellectual property rights. Aboriginal TK is an oral based knowledge that was shared among people

over many generations. The TK is a living knowledge that changes with time and experiences as it is passed on. Historically, ownership of TK was not an issue as people were expected to share their knowledge with each other and respect the knowledge that people shared with them. Trying to assert ownership and control of a body of knowledge that has an origin and history of common sharing is difficult.

4.3 Enforcement

If an intellectual property right did exist for TK, enforcement would be difficult. In 1980, the U.S. Patent and Trademark Office (USPTO) allowed about 60,000 patents. By 1999, the number of annually approved patent claims at the USPTO had more than doubled. But this doubling says more about the strains afflicting overburdened patent examiners than the real surge in the importance of intellectual property in world commerce. It took from U.S. Independence Day more than 200 years ago until December 1999 for the United States to recognize six million inventions. At this moment, more than three million patents pending in the USA on human genetic material alone. In Canada there are certainly fewer patents issued, however, the trend would be very similar. Most of these patents also represent specific products by individuals or companies and do not cover a body of knowledge like TK held by a group of people.

Patents are a private affair. Enforcement is through the Civil Law. Generally, intellectual property actions are expensive. The average cost of a patent litigation, per litigant, in the US runs to well over \$250,000 (US). Therefore, it is unlikely that an intellectual property action would be worth the cost to a First Nation even if they felt they had a case that was defensible in court.

Even if the law could extend protection it is of questionable value. A recent example from the GSA will serve to illustrate the point. The Gwich'in Renewable Resources Board published a book entitled "Gwich'in Words about the Land" which compiled some Gwich'in traditional ecological knowledge (TK). The book is copyrighted, but the copyright only protects the way in which the TK is described and presented. It does not prevent the knowledge from being used by anybody that reads the book. The fact of putting information in a book, copyright or not, brings that information into the public domain.

Enforcement or compliance by individual First Nation group members would be required if a First Nation wanted to control access and use of TK that was held by the group. Controlling and enforcing how individual members within a First Nation would share or release TK is a larger problem than controlling and enforcing TK use by non-First Nation members. Each individual member of a First Nation has the right as an individual to share or sell his or her knowledge, as it is their knowledge, obtained through their life experiences or discussions with other First Nation members. Here lies the dilemma of trying to assert intellectual property rights and laws on a body of knowledge that is by nature "public" knowledge, even if the "public" can be defined as a specific and distinct group.

Nevertheless, if a First Nation wishes to control the use and dissemination of TK there are ways of doing so outside of intellectual property rights law. However, the key to control sharing or use of TK by outside groups would require that all members of that First Nation agree to comply with any restrictions. The type of knowledge to be controlled would also need to be clearly defined so that members of the First Nation know what the controls apply to.

4.4 Other Ways to Protect Traditional Knowledge

4.4.1 Silence

The most elementary form of protection of TK which the holder does not want to fall into the public domain is to remain silent and not share it. Silence requires agreement among all First Nation members that specific TK will not be shared with people outside the First Nation. Again, this may work well for individual knowledge holders, but problems are inherent when considering knowledge held by a group of people as any member of that group would have the right to share or sell their knowledge.

4.4.2 Contract

The holders of TK or a group representing them, such as their political organization, could agree to share the TK under certain conditions or in exchange for certain benefits. If the holder (group or individual) wishes to be compensated for sharing TK or wants some measure of control over its use, then the law of contract is an option. In a contract it must be clearly laid out what TK is being controlled, what expectations come with the use of the TK, and how any controls will be enforced. For example, if in return for sharing TK the recipient promises to send a copy of the study or report back to the community and fails to do so this is a breach of contract and legal action could be taken to enforce compliance.

4.4.3 Traditional Knowledge Policies

Legal action is an expensive and unpredictable option. A better mechanism is the development of policies setting out the rules and procedures for dealing with the holders of TK and its use.

While it is difficult for a First Nation to assert a claim of ownership of something as diffuse as TK, it could possibly assert a claim to be a “trustee” or “guardian” for the protection of TK within the boundaries of the First Nation.

Aboriginal organizations have developed such policies to guide the holders of TK in their dealings with researchers and others. The policy is enforceable only in so far as the members of the First Nation are willing to follow it. The aboriginal organization can require that all non-members of the organization such as visiting researchers conform to the policy within their jurisdiction. Most TK policies deal with such issues as informed consent, publication guidelines, relevancy, acknowledgement and reciprocity.

4.5 Traditional Knowledge and Cumulative Impact Monitoring and Cumulative Effects Assessment

The CIM/CEA processes require the incorporation of TK into their decisions. The issue of intellectual property rights and TK may not be applicable when considering CIM/CEA processes. The TK and other community input needed for the CIM/CEA processes generally involves broad based environmental changes and observations. The CIM/CEA processes are not concerned with TK on herbal medicines, harvest methods, or cultural displays or events. For example, the CIM process may be concerned with changes of specific wildlife populations after 20 years of seismic work in an area. Such general observations and knowledge of environmental trends are sufficiently broad and diffuse that they would not likely fall within any current definition of intellectual property that is enforceable by law.

TK used in any CIM/CEA process would generally be common “public” knowledge within a community, determining ownership of this knowledge would be difficult as several community members may contribute their TK and personal observations. It is also likely that the TK from the community may change depending on what community members participated in the process.

Elders and other community members have a vested interest in providing their TK to the CIM/CEA processes as the information would be used to help monitor changes and reduce the impacts on the land and wildlife. Community members that are closest to the land and use the resources, have long wanted their knowledge (TK) used to help monitor and manage these resources. Any sensitive or proprietary information should not be provided to the process if individuals or the community are concerned about revealing such information.

5 INCORPORATING TRADITIONAL KNOWLEDGE INTO CUMULATIVE IMPACT MONITORING AND EFFECTS ASSESSMENT

Incorporating TK into the CIM/CEA processes has been the main focus of this project. To address this question we have searched applicable literature, conducted surveys and facilitated community Traditional Management Workshops. From this work we have been able to pull together the recommendations made during surveys and workshops and are able to present what we feel is the best way to ensure that TK is successfully incorporated into the CIM/CEA or any process. The following list of points may not be applicable for all situations, but in general can be used when wanting community input into a process.

- a) Communities need to be contacted early in any consultation process and informed that their input, TK, is needed. Communities need to have a good understanding what they are being consulted about and how their input will affect the decision making process. It is also important to explain what type of input is needed (TK, local knowledge, monitoring information). Once the community has a good understanding of what is required, they are in a better position to determine if they have applicable input and who in the community is in the best position to provide TK.

- b) Community members need to know the scope and time frame of the consultation process. Is this their only chance for input or is this the first of several meetings.
- c) Most communities need time to internally discuss the subject and determine what their input will be. Informing a community of a project and expecting their input all at the same meeting is not an effective way to get their input or TK.
- d) Different community input techniques may be needed depending on the community, topic or project. Larger public meetings, smaller meetings with specific groups responsible for certain areas of jurisdiction (Renewable Resource Councils), focus group meetings, one on one individual consultations, a contract with the community or local group to provide information, are all techniques that can be employed depending on the situation and community needs.
- e) Whatever the information/TK that is collected from a community, it is important to bring this back to the community to ensure that the information was recorded correctly and that this is what the community meant to provide on the topic. This also provides the community with the opportunity to add any additional information on the topic or clarify what they meant when providing earlier comments.
- f) Community members should be involved in any field monitoring programs to collect information for the CIM/CEA processes. Their involvement will also help ensure that TK is brought into the process.
- g) Community members need to be fairly compensated for their time and knowledge. Most communities have guidelines on compensation for time and services.
- h) Community members need to be acknowledged for their input/TK. This acknowledgement lets community members know their input is appreciated and tells people reading the information that community members were consulted.
- i) When collecting TK from community members it is important to remember that most TK is qualitative and addresses issues from a long term, general basis. For example, community members may know that there are fewer muskrat in a swamp and that they are skinnier, but will not know the muskrats population density or relative fat index for muskrats in the swamp.

6 EDUCATING AND INVOLVING YOUTH

During the early stages of the project development youth were identified as an important community group that needed to be considered. The project provided the opportunity to identify how to get youth input in the CIM/CEA process and how to educate youth about cumulative impact monitoring and cumulative effects assessment.

During all the community Traditional Management Workshops youth involvement was discussed and several suggestions were made on how youth could learn more about the land and be used to help monitor any impacts. Everyone at the workshops felt that youth could play an important role and work closely with Elders and other community members on any community-based monitoring projects. In some workshops youth were included and provided input at the workshop.

To reach youth in all of the communities the project coordinators worked with Peter Hardy from the international GLOBE Program. Peter Hardy was developing a web site where youth could go to the site and interact with the program and learn about environmental concerns. The Globe Program trained staff at 24 schools and Aurora College in the NWT. Teachers were then able to have their students access the program and begin to monitor and record various environmental conditions. The program also looked at how youth could be involved in environmental monitoring programs where cumulative impacts could be monitored, but specific activities were not developed in this area.

The Globe Program in the NWT can be reached at the www.Globe.gov web site by going to Globe Canada and clicking on the NWT. The benefit of the Globe Program is that it introduces students to environmental monitoring and connects them to other youth throughout the world.

The Globe Program identified one way to involve youth through the use of the internet, however, there were also several ways of involving youth that were discussed during the interviews and workshops. Youth education and involvement is an important component in any long term monitoring program.

7 CONCLUSIONS AND RECOMMENDATIONS

The focus of this project has always been how can we include TK from the communities in the NWT in the CIM and CEA processes. By using the Gwich'in Settlement Area as a case study we have been able to identify the current status, concerns, and options for using TK in CIM and CEA processes. Like many other projects, the work completed during this project has raised as many questions about how TK can be used and incorporated into decision making as it has provided answers.

The evolution of TK in decision making, its recognition, acceptance and incorporation, has made considerable progress in the past 20 years. Today most governments, organizations and communities are discussing and questioning how they can incorporate TK and other community knowledge into decision making. This discussion and debate will continue until all stakeholders are familiar and comfortable with the sharing, use and incorporation of TK.

The following list of recommendations is a summary of the conclusions reached during this project:

7.1 Traditional Knowledge needs to be defined to establish a common understanding of what is needed.

The general term TK has a broad definition and includes a wide range of local knowledge. The broad definition of TK has created some confusion and controversy when trying to incorporate TK into the CIM and CEA processes. Those groups trying to incorporate TK have been unclear on what knowledge to incorporate and community members have been unsure of what knowledge is needed. To address this problem organizations and communities need to agree on the type of knowledge needed and set the parameters on that body of knowledge so that everyone is better informed on what is needed and who will provide it.

By defining the type of TK needed for CIM and CEA, community members can best assess who has the knowledge and how to provide it. Defining TK will also help distinguish it from “community or local knowledge” or indicate where there are overlaps or similarities. Generating a list of the areas that TK should cover may be one way to determine what knowledge is needed for the process. Having community members assist with determining the list of areas may ensure that the appropriate TK is included.

When collecting TK from community members it is important to remember that most TK is qualitative and addresses issues from a long term, general basis. For example, community members may know that there are fewer muskrats in a swamp and that they are skinnier, but will not know the muskrat population density or relative fat index for muskrats in the swamp.

7.2 TK Policy and Guidelines for the CIM and CEA processes need to be developed.

The policy and guidelines should specifically state that TK will be incorporated in the CIM and CEA processes and identify how communities and their knowledge will be included. Having a TK policy and guidelines on the CIM/CEA process will inform organizations and communities working with the processes that TK will be used.

The policy and guidelines must specifically state how TK will be used so that staff and community members have a common understanding of the role TK will play in the process. TK policy and guidelines should be flexible enough to allow them to address differences in issues and communities and still allow them to provide adequate direction and guidance. The policy and guidelines should be living documents that can be updated as organizations and communities become more familiar with incorporating TK in the CIM/CEA processes.

Communities and aboriginal organizations also need to develop TK collection and use policies and guidelines that inform outside people and groups about how people in the community want to be consulted and provide their TK. A

local TK use and sharing policy will also help inform community members how the overall group wants to be consulted or share their knowledge.

7.3 Community members need to identify who is the most appropriate person or people to contribute TK.

When dealing with specific areas or species, it is important to allow the community the opportunity to identify who is best suited to provide TK. Like western science, there are specific individuals within a community that become known as “experts” in certain areas of TK. Often the TK “expert” has spent most of their life in the area, or their family is traditionally from that area.

Some community members have more TK on fish in the area, as they spent more time fishing, while others may focused more on trapping or caribou hunting.

The initial meeting with the community or designated group such as the Renewable Resource Council, can inform the community what type of CIM/CEA TK is needed and then the community can decide who may be the best person or people to provide that information. Having a community member on a board or committee, attend a community information meeting, or work on a field project does not necessarily meet the requirements of adequate TK input and incorporation.

7.4 TK from community members needs some form of community verification or “peer review” process.

This does not mean that the sources of TK within a community are not reliable, but a community verification process allows the community to confirm that the TK provided is generally accepted. It allows other community members to add to the information provided or to clarify information they may have provided at an earlier meeting.

Bringing the TK back to the community also ensures that the community is comfortable with the information provided and that they are properly acknowledged for their input. Community verification may also prevent the use of TK “out of context ” as community members would be able to see how their information is being used.

7.5 Community members need to be involved in monitoring cumulative impacts and any changes to the land and wildlife.

Community based monitoring programs would ensure the use of TK, and involve the people that are closest to the resources and use the resources being monitored. Concerning the monitoring of fish and wildlife species, the easiest to monitor and the best information would come from species that community members use for food as they are more familiar with these species.

Community members felt the roles and responsibilities of all groups involved in monitoring and resource management needs to be clearly defined so that all groups can work together effectively and that the communities are fully involved in monitoring and resource management.

7.6 Participation in the CIM/CEA processes may require training and capacity building at the community level.

Community members may have the TK about their area and resources, but may need training in cumulative impact monitoring to ensure that any monitoring done is complete accurately and that the information is useful. Training could take place before a monitoring project is initiated or during the initial stages of the monitoring program.

The Gwich'in Renewable Resource Board has had good success with field based monitoring programs where community monitors were trained on proper data collection techniques before going into the field and then again on-the-job during the monitoring program. Once community members are trained for one monitoring program they are able to transfer some of those skill to other monitoring programs, making them a valuable asset in the community.

7.7 Youth from the communities need to be involved in the CIM/CEA processes.

Involving community youth will provide further input from the community and help set the stage for ongoing community capacity and involvement. Youth can work with other community members or Elders and contribute their skills to the program and at the same time learn about local TK.

Traditional knowledge needs to be passed on to the youth and other interested community members to ensure that it is part of the knowledge that the community has and uses. As fewer people spend time on the land, it is important to support on-the-land programs for youth and community members and to use Elders to help pass on TK and traditional land skills. Traditional knowledge needs to be combined with the education youth are currently getting to ensure that TK is passed on.

7.8 Intellectual property rights issues are not generally a concern with the type of TK needed for the CIM/CEA processes.

However, to confirm community members do not have any concerns on the TK they are providing, groups or organizations requesting TK input should clearly stipulate what information is needed, what it will be used for and how the community will be acknowledged and compensated for their input. Any TK that community members do not want included in the CIM/CEA processes should not be provided or provided under contract that specifically identifies what TK can be used and for what purpose.

7.9 TK is best incorporated into the CIM/CEA processes with a well developed plan that allows communities the time needed to effectively participate.

Communities need to be contacted early in any consultation process and informed that their input, TK, is needed. Communities need to have a good understanding what they are being consulted about and how their input will affect the decision making process. It is also important to explain what type of input is needed (TK, local knowledge, monitoring information).

Once the community has a good understanding of what is required, they are in a better position to determine if they have applicable input and who in the community is in the best position to provide TK. Community members need to know the scope and time frame of the consultation process. Is this their only chance for input or is this the first of several meetings. Most communities need time to internally discuss the subject and determine what their input will be. Informing a community of a project and expecting their input all at the same meeting is not an effective way to get their input or TK.

Different community input techniques may be needed depending on the community, topic or project. Larger public meetings, smaller meetings with specific groups responsible for certain areas of jurisdiction (Renewable Resource Councils), focus group meetings or one on one individual consultations, contract with the community or local group to provide information, are all techniques that can be employed depending on the situation and community needs.

7.10 Community members need to be acknowledged and fairly compensated for their time and knowledge.

Most communities have guidelines on compensation for time and services. Community members need to be acknowledged for their input/TK. This acknowledgement lets community members know their input is appreciated and tells people reading the information that community members were consulted. Proper compensation and acknowledgement also begins to build the long term relationship that will be needed with the communities for the CIM/CEA processes.

8 REFERENCES

- Agrawal, A. 1995. Dismantling the divide between indigenous and scientific knowledge. *Development and Change* 26 (3):413-439.
- Augustine, S.J. 1997. Traditional aboriginal knowledge and science versus occidental science. Biodiversity Convention Office, Environment Canada. Ottawa. 10pp.
- Berkes, F. 1993. Traditional ecological knowledge in perspective. Inglis, J.T.ed. *Traditional ecological knowledge: Concepts and cases*. Canadian Museum of Nature, Ottawa. P. 1-9.
- Berkes, F., C. Folke, and M. Gadgil. 1995. Traditional ecological knowledge, biodiversity, resilience and sustainability. In C. Perings et al editors. *Biodiversity Conservation*. Bordrecht, Netherlands. P. 281-299.
- Berkes, F., and Henley, T. 1997. Co-management and traditional knowledge: Threat or opportunity. *Policy Options* 18(2):29-31.
- BHP Diamonds, 1997. BHP's Environmental Agreement. Yellowknife, NWT. 39 pp.
- Brown, M. 1998. Can culture be copyrighted. *Current Anthropology* 39(2):193-222.
- Canada, 1984. The Western Arctic Land Claim. The Inuvialuit Final Agreement. Department of Indian and Northern Affairs. Ottawa.
- Canada, 1992. Gwich'in Comprehensive Land Claim Agreement. Department of Indian and Northern Affairs. Ottawa.
- Canada, 1994. Sahtu Dene and Metis Comprehensive Land Claim Agreement. Department of Indian and Northern Affairs. Ottawa.
- Canada, 1998. Mackenzie Valley Resource Management Act. Government of Canada. Ottawa.
- Canada, (In prep.) Species At Risk Act. Department of Environment. Ottawa.
- Charlie, R. and P.L. Clarkson. 1999. Working together and using all knowledge to manage renewable resources in the Gwich'in Settlement Area. Traditional Knowledge Conference. Yukon Fish and Wildlife Management Board. Whitehorse, Yukon.
- Clement, D. 1997. Innu ecological knowledge and EIS guidelines for the review of the Voicoy's Bay Project. Unpubl. The Innu Nation. Labrador.

- Diavik, 2000. Diavik's Environmental Agreement. Yellowknife, NWT. 51 pp.
- Dobrowolsky, H. and R. Ingram. 1991. Recording memories, getting started in oral history. MacBride Museum Society. Whitehorse, Yukon. 20 p.
- Fiet, H. 1988. Self-management and state-management: Forms of knowing and managing northern wildlife. In: Freeman, M., and Carbyn, L., eds. Traditional knowledge and resource management in northern regions. Occasional Publication No. 23. Boreal Institute for Northern Studies. Edmonton, AB. P. 72-91.
- Freeman, M.M.R. 1979. Traditional land users as a legitimate source of environmental expertise. In Nelson, J.D. et al. eds. The Canadian National Parks: Today and tomorrow, Conference II. University of Waterloo Press. Waterloo, Ontario. P. 345-361.
- Freeman, M.M.R. 1985. Appeal to tradition: Different perspectives on wildlife management. In: Bronsted, J. et al. eds. Native power: The quest for autonomy and nationhood of aboriginal peoples. Oslo: Universitetsforlaget. P. 265-281.
- Freeman, M.M.R. 1989. The Alaskan Eskimo Whaling Commission: successful co-management under extreme conditions. In E. Pinkerton (ed) Co-operative management of local fisheries. University of British Columbia Press, Vancouver, BC. P. 137-153.
- Freeman, M. M.R. 1992. The nature and utility of traditional ecological knowledge. *Northern Perspectives* 20 (1):9-12.
- Gadgil, M. and F. Berkes. 1991. Traditional resource management systems. *Resource Management and Optimization*. 18:127-141.
- Gombay, N. 1995. Bowheads and bureaucrats: Indigenous knowledge and natural resource management in Nunavut. Unpubl. Master's Thesis. Environmental and Resource Studies, University of Waterloo.
- Gwich'in Tribal Council. 2001. Traditional Management Principles for the sustainable use of wildlife in the Gwich'in Settlement Region. Unpubl. Gwich'in Tribal Council. Inuvik, NT.
- Hart, E. 1995. Getting started in oral traditions research. Occasional Paper No. 4, Prince of Wales Heritage Centre. GNWT. Yellowknife, NT. 96 p.
- Howard, A., and Widdowson, F. 1996. Traditional knowledge threatens environmental assessment. *Policy Options* 17(9):34-36.
- Irlbacher, S.M. 1997. The use of aboriginal traditional knowledge in public government programs in the Northwest Territories. Unpubl. Masters Thesis. University of Alberta. Edmonton, Alberta. 145 p.
- Nakashima, D. J. 1990. Application of Native knowledge in EIA: Inuit elders, and Hudson Bay Oil. Canadian Environmental Assessment Research Council. Ottawa: Minister of Supply and Services.

- Notzke, C. 1994. Aboriginal peoples and natural resources in Canada. Captus University Publications. North York, Ontario.
- Shapcott, C. 1989. Environmental impact assessment and resource management, a Haida case study: implications for native people in the north. *The Canadian Journal of Native Studies* 9(1):55-83.
- Sherry, E. 1998. Traditional knowledge: exploring issues and challenges. Vuntut First Nation, Old Crow, Yukon. 25pp.
- Stevenson, M. 1996. Indigenous knowledge in environmental assessment. *Arctic* 49(3):278-291.
- Stevenson, M. 1997. Ignorance and prejudice threaten environmental assessment. *Policy Options* 18(2):25-28.
- Tobias, T.N. 2000. Chief Kerry's moose, a guidebook to land use and occupancy mapping, research design and data collection. Union of BC Chiefs and Ecotrust Canada. Vancouver, BC. 66 p.
- Usher, P.J. 2000. Traditional Ecological Knowledge in Environmental Assessment and Management. *Arctic* Vol. 53, No. 2 (June 2000) P. 183-193.
- Voisey's Bay. 1998. Procedures for public hearings. Environmental Assessment Panel Reviewing the Voisey's Bay Mine and Mill Proposal. 6 August 1998. Canadian Environmental Assessment Agency, Hull, Quebec.
- Wenzel, G.W. 1999. Traditional ecological knowledge and Inuit: reflections on TEK research and ethics, *Arctic* 52(2):113-124.
- Wolf, J., C. Bechard, P. Cizek, and D. Cole. 1992. Indigenous and western knowledge and resource management systems. University school of Rural Planning and Development, University of Guelph.

APPENDIX A- Traditional Knowledge Survey Letter

Date

RE: MONITORING AND ASSESSMENT OF CUMULATIVE EFFECTS IN THE NWT

MERGEFORMAT Dear *Name*:

I work with the Gwich'in Renewable Resource Board (GRRB) in Inuvik, NT. I am working on a joint project between the Gwich'in Renewable Resource Board (GRRB), the Gwich'in Tribal Council (GTC) and the Gwich'in Social and Cultural Institute (GSCI). The GRRB on behalf of the GTC and GSCI is conducting the Community-Land Relationship Project to clarify the community's role in the current monitoring and assessment of cumulative effects throughout the NWT.

The project will:

- ↑ Review existing approaches to incorporating Traditional Knowledge (TK) into monitoring in the North, with particular reference to the information management system of Cumulative Effects Assessment Management Framework (CEAMF)/Mackenzie Valley Cumulative Impact Monitoring Program (MVCIMP) and the involvement of elders and communities in various aspects of environmental monitoring and assessments;
- ↑ Propose an approach for collecting/using TK information for 'Priority Valued Ecosystem Components' (VECs) and other aspects of the land/environment;
- ↑ Identify opportunities for youth participation (e.g., through the GLOBE Program; school curriculum);
- ↑ Assess training and capacity development needs;
- ↑ Guide project proponents in considering TK in their Cumulative Effects Assessment (CEA); and,
- ↑ Examine intellectual property rights and TK.

The project is researching these questions using the following sources, (1) literature, (2) legislation and policy, (3) co-management boards and relevant organizations, (4) comprehensive lands claim protocols (Mackenzie Valley Resource Management Act), and, (5) conducting community workshops.

I would like to identify policies and/or internal procedures used by your organization to incorporate TK into environmental monitoring and assessments. Below is a list of questions to help guide your input.

1. What are your organization's policy and/or operating procedure with respect to monitoring, assessments of cumulative effects within your jurisdiction? If possible, can you provide specific examples when such policies and/or operating procedures were used?
2. Does your organization currently consider TK in the monitoring and assessment process? If so how and when does this occur?
3. In your experience, has there been any privacy issues respecting the disclosure and use of TK in your organization's process?
4. In your opinion, should the opinions, observations, experience and traditional knowledge of hunters, trappers, and fishers receive special consideration in the cumulative impacts monitoring and assessment process? Please explain your opinion.
5. In your opinion, is TK important in cumulative impacts monitoring and assessments? If so, how can TK be made available to organization's involved with monitoring and assessments?
6. What if any problems have you encountered when using TK in cumulative effects/impacts monitoring and assessments?

I look forward to your input on this important matter. If you have any questions, please do not hesitate to contact me. Thank you for your time and assistance with this project. I will provide a copy of the project final report when completed.

Mushi cho

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TRADITIONAL MANAGEMENT WORKSHOP

**Fort McPherson Results-Group 1
January 16-17, 2001**

**by
Lee-Ann Chevrette
Donald Andre**

**for
Gwich'in Tribal Council
Gwich'in Renewable Resource Board**

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ACKNOWLEDGMENTS

The Traditional Management Workshop required the assistance and participation of many individuals. A special thank you goes to the community members that attended the workshop and shared their experiences and time. Their participation, cooperation and patience improved the quality of the information and experience. We also wish to thank Liz Wright, the Tetlit Gwich'in Renewable Resource Council coordinator for the assistance she provided before and during the workshop. We would like to thank Johnny Edwards (GRRB) for the logistics support throughout the workshop.

PURPOSE

The Gwich'in Renewable Resource Board (GRRB) and Gwich'in Tribal Council (GTC) are interested in traditional management methods to guide conservation, planning and research in the GSA. The goals of the Traditional Management Workshop were to document Gwich'in traditional resource management practices and principles, and to determine the role of traditional knowledge in monitoring and assessment initiatives in the region.

Note: The following notes are not written verbatim. Audiotapes of the sessions are available upon request from the GRRB.

PARTICIPANTS

Robert Alexie Sr.
Neil Colin
Annie Jane Modeste
Charlie Snowshoe
Connie Stewart
Andrew Stewart

FACILITATORS

Donald Andre
Lee-Ann Chevrette

LOGISTICS SUPPORT

PART 1-TRADITIONAL PRACTICES

How did people take care of the land in the old days?

Neil: Learn from one another, and especially from elders

- Shared and communicated daily
- Respected the land
- People just knew where each other lived, so they communicated with others; today communication is different
- In the past people didn't know where the caribou were- they waited for the patrol to come and then they learned from the patrol where the caribou were; today they look into the computer to find out this information
- *Neil:* People worked together
- People took what they needed and worked with that and later on they moved again
- Weather: important to watch it-most of the time it was good weather, when too cold elders said not to go out hunting because the animals were a long way out; rather stay home and work with wood or do chores and watch for bad weather (learn the weather patterns)-young people listened to advice from elders
- *Robert Alexie Sr.:* when he's out with youth now, he doesn't take any chances because he's responsible
- *Neil:* Caribou always go towards/against the wind (a few caribou always stay back, some caribou are alone, not with the main herd)
- Approximately between 1965 and 1970 plane searches for caribou started-when caribou were found, dog teams went out to do a community hunt (sharing, cooperation)
- Respect for the land and respect for each other
- Past was harder but people earned (worked) for what they obtained
- Leaders (Chief) instructed people how to harvest and what to harvest (caribou)

How do you/communities feel about research on the Caribou?

- In the past people knew more about the caribou than nowadays-they used to understand their movements in greater detail
- Work has to keep on going, time changing, easier to find caribou but information not as detailed as in the past
- Traditional method of harvesting not taught to younger generations (today no one knows animal behaviors, where they go and when they come back). People used to watch for signs in detail

What are the most important things you were taught about harvesting wildlife?

- You take everything
- Don't play around with meat
- Take only what you need
- Sharing
- Showed the way of life and the country (the trails, etc...)

Traditions/spiritual

- No working on Sundays (no hunting, no wood cutting...). Today people laugh at this.
- *Neil*: If you see one (animal) around, can hunt on Sunday only if you need meat-it is like a gift-it is given to you if you see one around.

How important was sharing within communities/among families?

- Before they moved, they would have 2-3 elders (meeting) telling the young guys to go out and get a load of firewood and some meat for the elders that were staying behind-to make sure they are ok and well taken care of. When they got back after 2-3 months, they would still be all right. They would share-you don't leave somebody alone with nothing (sharing, communication, taking care of each other)
- Elders responsible for directing sharing method (who and what they got when some harvested an animal)

Was it the responsibility of the elders to ensure sharing?

- Yes

Are people today still using everything?

- Not as much because it is a new generation-have to go out there and teach them; this is where traditional knowledge comes in; talk about taking young people out on the land; this is the most important thing today because this is where they have to learn all this and make use of everything and how to handle it all. In the past people looked after the animals well. Today is different.

Why is it different today?

- Because it has never been taught. Most young people don't know this-they were not taught.

What is it that makes a person respect wildlife?

- It was a matter of survival- this is where they took care of it. Today it is "easy come easy go"
- In the past elders told them that if they didn't respect animals, someday they would suffer for it and have bad luck. Important that everything was clean-no blood on clothes/boots-this was taught by the elders
- People who don't respect wildlife didn't learn or are lazy
- Respect for each other, young people feel they don't get respect so they don't know what is respect-why respect others when people don't respect them
- Mix with other people (Inuvialuit) learn to respect different people
- People that come in (harvest) don't respect the local people and don't share (need money to get something from them)

Charlie Snowshoe: about respect-

- If you don't respect, it will come back to you-you'll have bad luck. Residential school-that is a change of life for the people taking them out of their homes and off the land. Today, people are chasing the caribou (i.e. snowmobiles). Nature takes care of itself. Caribou know ahead of time-they have an instinct. They have a route-it is the

people that change the route. We try to talk but it still happens. The young people don't know because they have no one there to teach them about the respect taught to generations before. Many adults also don't know. People are more interested in getting a job because they don't know.

- We need to get the youth out on the land so they will know what's there-they need to hear the stories about their land. Need more "on the land programs". Needs to happen while the elders are still around—concern that there will be no one left to take care of the land.
- Hunting caribou/wildlife critical for their survival-also needed to feed their dogs so they could work. People depended on their dogs.
- People then worked hard, today it is too easy-government started giving low rental houses out-this was the biggest mistake!
- In the past, people just took what they needed.
- Some people had no respect because they had no experience on the land (school took young people away from community/family and they had no chance to learn the respect that must be passed down from generation to generation.

PART 2-WHY IS WILDLIFE IMPORTANT TO YOUR COMMUNITY AND TO THE GWICH'IN?

What do you value most about being Gwich'in?

- In the past, people would be more aggressive when sighting animals (moose) tracks sighted close, but it is different today. Today there is more food available (stores) to people now than in the past.
- *Neil*: Caribou was given to the Gwich'in by the Creator and has to be respected
- Healthy life comes from the land (traditional foods)
- *Robert*: People have to learn new ways (technical training and make sacrifices) in order to survive in the future.
- *Neil*-Cook meat in different ways (dry meat, boil, fry, and Back legs-*ungual*.) it is something that you eat that makes you feel good-it is our food (it is an important source of food)
- *Andrew*-Where they get their income from off the land
- *Robert*-Caribou is very important to people here, because they lived off it for generations, good time in fall when caribou are around, like in the spring, people feel good because birds are coming back

PART 3—COMMUNICATION

In the past did people talk to each other about wildlife harvesting, like how much wildlife they harvested and where? Why or why not?

- Robert: In the past, stories were all shared. It was a group, and they all shared together.
- In the old days, you got the best information from other harvesters
- Dog team transportation (form of communication)

- The Patrol would also tell you where to find animals (communication)
- People were isolated so it was important to communicate
- Information was shared freely
- Groups shared.
- New generation needs to be taught TK (respect, awareness, honor and stories).
- In the past people were more knowledgeable about wildlife
- People listened to the Chief (leave the caribou alone-let the leaders pass)-today no one listens
- Today access is easier (trucks)-they go where they want to go, but in the past there were maybe a few guys in the mountains with dog teams-they go where they want to go
- Today less respect for animals than in the past
- People raised different today, individual rights are difference today, meat is there and today people still want fresh meat-it is their way of life-can't blame them, and you can't stop them-they're brought up like that-if caribou is there they are going to try to get it to get some fresh meat-you just can't stop them-they have a right to do it-it is their way of life; they like to do it; they want to eat it-and that is good too
- New laws will come into affect soon to "let leaders pass" this is a direct result of Traditional Knowledge
- Today people communicate about the caribou-discussions between communities-they know when they start moving down from the coast-they talk to people in Aklavik

Today if you need information about wildlife, who is the best person to go to or the best organization?

- Other harvesters
- Today people talk to the wildlife officer to find out information about animal locations, general information.

Do people go to the RRCs if they need information about wildlife?

- No, not really

Do harvesters feel pretty free to share information among eachother?

- Robert: Yes, we tell one another.
- Today harvesting information is shared freely

Do you feel that today you are more knowledgeable about wildlife issues and stuff that is going on out on the land?

- *Robert:* We know more today, but people in the past knew more about the animals and how to take care of them better.

How does this information affect your harvesting? Does it make your harvesting better?

- *Neil:* We get more animals
- *Robert:* Today is different. In the past if there was a moose, people went and got it. Today, people don't go and get it (Discussion about people not going after the animals

the way they used to-Why?-more store bought foods, people living in town, harder to get out there-gas costs lots of money these days)

- *Neil*: when you don't have enough meat you go after it.
- Caribou with collar-doesn't necessarily tell you where the main herd is- this caribou may not be with the main herd- there may only be six or ten (not all information today is reliable)
- *Robert*: In the past the Gwich'in took care of everything, they went and got it-they had to. In the past there was no help from the government. Now if you need something you can go to social services. *"Today it is much easier, it's not easy as today, but was a good life-it was hard, but it was good"*.

PART 4-WILDLIFE CONCERNS

What happened in the past if someone had a concern about some wildlife? Who was told?

- In the past wildlife concerns were discussed with the Chief and Council, also discussed with other harvesters-they tried to figure out the problems together-they discussed last known locations of animals
- Today wildlife officers tell information about animal locations and what is happening
- Communication lets people know where animals are today, but, old days people would know what time to expect them by the patterns learned by the elders
- Old days people had to study the caribou in more detail (all aspects of the life of the caribou)
- Old days people would discuss animal locations and make decisions with input from people from the land
- Before there were stores, people had to go out on the land to get what they needed. People would get hungry, but they sure watched good. Not just for wildlife, but everything that comes (the environment, weather...)
- Stories about lots of people starving in the past
- Some parents don't know about TK and they don't know how to clean animal (leads to traditional harvesting methods, respect, and how to take care of the land)
- Outsiders need to be made aware of the issues within the GSA
- *Annie*: Concern about learning traditional way of life-want their children to get education-worried about their future-also concerned about them being able to get stuff out on the land-hopes people will continue to help each other as they did in the past.

What if there was a wildlife concern today? Who would you talk to?

- Wildlife officer or RRC
- In the past they did not let the leaders pass-as soon as they saw the caribou, they went after them
- *Neil*-story about Whitestone around the 1940s. A family looking for caribou had two or three dogs-the dogs starved. Other families decided to help-each gave this family a dog, fed them well, and eventually were able to make it back to McPherson. Lots of dogs starved this time, due to cold weather (people worked together!). Sometimes there were hard times.
- *Robert*-things have to keep going (need to be progressive)

- Today harvesting is a different experience

Did you ever let the land rest?

- *Neil/Robert:* No, I think caribou look after that-every year they don't go one place all the time-they always changed
- If you saw something, you just went after it

PART 5-TRADITIONAL KNOWLEDGE

Why do you think TK is useful in wildlife research and management? How can and at what point in the monitoring and assessment processes should TK be introduced? Please give examples?

- TK important because young people need to know what is out there and show them the country (stories, history of area)
- Only one way to teach, take them out there and teach them the stories, history of land
- People need to be realistic about life on the land some people are not realistic about life on the land
- Young people need to be taught about TK because they will be carriers of the knowledge and stewards of the land in the future
- Parents direct children to schools so that they prepare for the future (modern methods are a priority before Traditional Knowledge)
- Need to know the weather-determines the movement of people and wildlife
- Need to teach and show youth both the old ways and new ways
- Moose don't move when there is a crust (spring time). Used to let dogs chase moose and surround moose. People used to know moose behaviour. Respected it and the animals-did not take cow moose in spring because they are going to have babies.
- Respect is wrapped in the teachings about traditional knowledge

What are the most important things you learned from your parents, elders about wildlife harvesting?

- Take everything and keep land clean-this is based on respect for the land and animals
- Cover everything with snow when leave area, keep land clean (practices reflect on the Gwich'in people, outside people see this and if there are poor practices the Gwich'in culture put in question)-doing it right gives people good luck to hunt again.
- Learned how to skin and look after the parts (guts)
- Take everything
- Don't play around with meat (animals) and leave something
- Take what you need and share with people
- Shown the country and way of life (show trails etc)
- Spirituality
- Traditional practices-don't cut wood on Sunday, set traps on Saturday do all the work, Sunday you don't have to do anything
- After church services it is okay to harvest only when wildlife is seen close by and you need it-if it is that close, it is considered a gift.
- Listen to elders (learn from them)

PART 6-PRESENT DAY RESOURCE MANAGEMENT

What role should the following play in managing (taking care of land) resources today?

Harvesters

- Young harvesters should ask elders, parents before hunting caribou ask questions they're concerned about (i.e. weather, animals, locations)
- Keep trying is the only way to learn (positive about this you also learn about the land, history)

Elders

- Elders are described as the ones with experience that have been out lots and know the patterns of area (weather, water and anything that elders think is important)
- *Annie/Neil*: should be advising, telling harvesters and young people; let DRWED know if there are concerns
- *Robert*: he's been sharing information and talking with people his whole life-important-wants to preserve the land-everywhere else the land has been destroyed-let's leave it as it is; untouched; leave it for recreation/tourism-sees lots of guests signatures in the book saying to leave it as it is

Communities

- Oil and gas: monitoring and meeting-need local monitor
- Development and other projects should use equipment that won't destroy the land

Youth

- More youth should be involved in all renewable resource meetings
- Get youth involved today as they will one day become the teacher to the next generation

RRCs/community organizations

- Meet with people, organizations, industry that want to work in community

PART 7-MONITORING AND ASSESSMENTS

How would you like monitoring done in the GSA?

- *Robert*-have local monitors
- *Neil*-make sure person hired understands what his job is-someone who knows the land and the country-need to know the country and the people; have contacts with other areas to protect resources; develop relationships with people who share resources; get clarity on who makes laws; using community resources; band office/RRC/elders have

information/any Gwich'in office/Language center-all should have information to give to monitors

How can you formally include Traditional knowledge in?

- *Liz*-when companies come to the community they should contact the band/RRCs on renewable resource issues. All these organizations should be involved. These organizations should at least get a report on what they are doing. Maybe the RRC, band can help.
- Respect Land Use Plan
- Respect Land Claims and law.

How/who would you like to do assessments in the GSA?

- Sit down (meet) with them find out what is going on from the company or whoever and then community will give them local information
- Get people who know the country

PART 8-TRAINING AND CAPACITY BUILDING

What are the needs of the community regarding training and capacity development?

- *Connie*-training young people
- *Robert*-more young people in workshops
- *Robert*-need to integrate youth and elders
- *Neil*-Place names-will be written on the highways-better communication/awareness
- *Annie*-concerns about making choices between teaching kids traditional ways and showing new ways
- *Neil*-getting youth involved-traditional lifestyles will be good to fall back on-critical skills
- *All*-say learn both ways-learn while you can-learn both ways for the future
- *Annie*-happy she did not lose the language
- *Robert*-training-mix young and old; get people together/Gwich'in gatherings; important that people know where they are coming from; they need to know where they stand
- *Liz*-Crime Prevention Team-geared towards bringing kids out on the land-have different programs; have a cultural center set up in the school. It is a community organization/private project
- *Annie*-trying to get funding to get people out on the land-elders and youth
- Train (let the leaders of the past) young people about traditional harvesting methods
- How to integrate youth with elders (get more youth to go to meetings, workshops)
Now is the time to get them in the process
- Contact schools and invite school members to workshops
- Young people need to know where they come from; they need to know where they stand within the community
- *Robert*: Get young and old out together now. The cost will be worth it. The stories and the background about the land, the animals...need to be heard-they will get a lot of

information. Need to do it before the elders are gone. Down the road it will be too late.

- Learn both ways for the future. You can't survive without both ways.

PART 9-THE FUTURE

What do you think are the most important things that a person needs to do to take care of the land for the future?

What are your biggest concerns for wildlife in the future?

- Connie-Believe that TK will be lost. Once elders pass on no one will be here to pass it on.
- People who have it now need to pass it on today in order to TK to survive.
- Long ago people would harvest moose whenever they say it, now people see it they don't harvest it.
- Pollution
- Robert-The Gwich'in are wealthy-we have animals all over here. People don't understand how wealthy we are.
- A lot of people have no way of getting out on the land.
- Young people have to learn traditional ways for the protection of the land for future
- The youth need to get out and see the land.
- Have to be out on the land to enjoy the land, life (good life out there in the spring)
- Young people need to know history and country, where the river starts and the connections (relationships).
- Education is important. In the old days, could only go to school until they were 16 years old.
- Neil-in 1988 Gwich'in Gathering started and it will continue to be done as a way of getting people together to protect our land and the caribou.
- Neil: Human beings and development are not supposed to bother that place-1002 lands-it is untouched and secret place; it doesn't belong to us, it belongs to the animals and the birds and the fish.

How can communities encourage maintaining strong ties to the land?

- More workshops
- On the land programs
- *Robert:* Youth training cannot be only once or twice has to be ongoing (spring, summer, fall, winter)

Why is wildlife important to the Gwich'in?

- The creator gave it to us-it is our food-given to all the Gwich'in across Alaska, the Yukon, NWT
- Feel better when we eat our own food. Nutritional value.
- If you can't get the food off the land you have to be employed to eat
- We were brought up on the land-this is what we know

Additional information

- Neil on "Dreams and hunches". Neil says some people dream about things that will happen in the future. Hunches-they do that for caribou and

moose-they'll have a feeling about something. They'll know what creek to go to because they'll see caribou tracks, then they'll go and get them.

- After Oct 10-12, don't hunt bull caribou-they smell after mating season-best time is end of September
- Don't bother cow moose in the spring because they are going to have babies-only if people are really hungry.

What do you suggest that we do to improve the workshop or questions (presentation style, what was good and/or bad about the workshop)?

- Neil-After finished give information to band council to let them know what is going on! This place is not isolated like it used to be; communication is easier today. What someone does to the caribou in one place affects other communities-important to work together-transboundary issues/shared resources.

PART 10-CONCERNS/RECOMMENDATIONS

- Talk to people in Fort Rae and Colville Lake; they are taking families out on the land
- Back in old days the law was the law (RCMP, Game Warden)
- In the past, whenever you saw anything, you got it-fresh meat
- Gabe Andre, shot beaver on Mackenzie River and somewhere the story leaked out to the RCMP-they worked on their rounds. When they came around, they started looking for beaver skins and people told them to leave what was not their alone-that it wasn't their stage
- In the 1950's people had to sneak to harvest ducks and cow moose, law said you couldn't harvest these animals-this affected traditional harvesting practices
- *Robert*-story about guys getting beaver and being scared about getting caught by the game warden. Robert told them not to be scared, that they were going to eat it. Told them if anyone said anything to tell them that he (Robert) shot it. He'd like to go to court for what he wants to eat. Concerned about what this did to his people.
- *Neil*-His father was a local minister and got caught with a bunch of beaver skin. He was brought to court and asked to pay \$50 fine. He refused, saying that this was his food. Said he'd rather go to jail. Someone ended up paying the fine for him.
- People would go to court and people's traditional food was put into question (what can you eat and when?)

APPENDIX C - GLOBE Canada

Canada Stretches for Success

Canada, a vast country covering nearly 10 million square kilometers and flanked by three oceans, has been spreading the word of GLOBE through years of local, provincial and territorial efforts.

Activities especially have been boiling in three regions as a result of the energy and commitment of Peter Hardy in the Arctic territories; Wendy Campbell, Bill Batycky and Mike Mappin in Calgary; and Ann Whalley and Dr. Leo McDonald in Nova Scotia.

For great national impact, Cate McEwen of Salt Spring Island, British Columbia has been appointed as Canada's first Country Coordinator. Ms. McEwen had an intense introduction to GLOBE: within four weeks, she attended the GLOBE Annual Conference, the Arctic POPs workshop and a workshop in Kananaskis, Alberta!

"In Canada the capacity of GLOBE is far reaching - merging the science of indigenous and euro-centric ways; employing the computer as a learning tool supporting other subjects; connecting people in remote, rural or northern communities with the rest of Canada, with the global world," said the Country Coordinator.

The Canadian activists connected a network of trainers and teachers so although separated by great distances and sometimes only reached by plane or boat, they can get support and guidance from GLOBE Canada. More than 20 educators were trained at two International GLOBE Workshops this past summer, bringing the total number of trainers in Canada to 35. The trainers, spread throughout Canada, are the strong foundation for new and existing GLOBE teachers, trainers and students.

"Working with " "Working with GLOBE in the Arctic has been a pleasure because of the program's relevance, its communication tools and the quality of its experiential science that meet the needs of the Arctic's diverse peoples. GLOBE as a program has been embraced by northerners, excited students in schools, teachers, and administrators all the way to receiving substantial support from the federal government agencies and indigenous groups and First Nations," said Hardy.

This autumn saw a flurry of GLOBE workshops and presentations in British Columbia, Alberta, Manitoba, Newfoundland, Nunavut, NWT and Yukon. Partnerships are being explored with universities, research institutes, businesses, Parks Canada, EMAN, Ducks Unlimited, and more.

In Alberta, Wendy Campbell and Mike Tyler of Calgary, Alberta, have cross-linked the outcomes of GLOBE to K-12 science curriculum and efforts are underway to link GLOBE to Social Sciences and Languages and Arts. In the Yukon Territory, where a different school curriculum exists, GLOBE trainer, Bob Sharp, is busy making the

GLOBE-curriculum cross linkage for teachers. Manitoba has linked GLOBE to its curriculum for consideration of a GLOBE pilot-project.

There are now over 250 GLOBE teachers in 133 GLOBE schools in Canada. As Cate said, “With a country coordinator and 35 trainers in eight of the provinces and territories, regional and national networks are now a reality - training more teachers, providing support to GLOBE teachers, and connecting more Canadians to their environment.”

APPENDIX D - Community-Land Relationship Project Definitions

Traditional Knowledge (TK):

A cumulative body of knowledge, values and beliefs, handed down from one generation to another, which has been learned through experience and observation from the land and from Gwich'in oral tradition (Gwich'in Traditional Knowledge Policy definition).

Monitoring:

Watching and keeping track of changes that are happening on the land (animals, environment).

Assessment:

An evaluation made based on observations and data.

Cumulative Effects Assessment (CEA):

Looking at all the changes in the land (animals, environment) from activities that happened in the past, plus those that are happening in the present, plus those that might happen in the future, and deciding what effect they will have on the land.