



Arctic Borderlands

Ecological Knowledge Society

Northern Ecosystem Governance: Making use of Traditional Knowledge for Ecosystem-Based Decision-Making

*Case Studies: Porcupine Caribou Harvest Management Plan and
North Slope Management Plan.*

October 2015



1 BACKGROUND

The Arctic Borderlands Ecological Knowledge Society monitors and assesses changes in the range of the Porcupine Caribou Herd and adjacent Mackenzie Delta area in NWT, Yukon, and Alaska.

Our approach is to empower member governments and communities to monitor, record, and share knowledge and stories about the ecological processes and wildlife status in the north. We are a registered Charity based in Yukon with activities in Alaska, Yukon, and the Northwest Territories.

During the fall of 1994 interested parties met in Dawson City to start an ecological monitoring program within the range of the Porcupine Caribou Herd. Participants identified the three main issues that should be the focus of ecological monitoring: climate change, contaminants, and regional development.

Participants also decided that an important part of the program should be to bring together science and local and traditional knowledge to target informing decision making in the north. The Arctic Borderlands Ecological Knowledge Society (ABEKS) is the result of commitments and efforts since that meeting.

2 PROJECT SUMMARY

The GOAL of the project is to increase the capacity of decision-making bodies to use and integrate both science and TK within their decision making framework. In order to achieve the project goal, several key objectives have been identified.

1. UTILITY OF TK INDICATORS WITHIN ABEKS'S EXISTING DATASET

The program has collected years of data and recently has shown success in a subset of indicators demonstrating superior ecosystem monitoring capacity for managers to use. The project will broaden the scope of existing analysis to seek further application for decision making, cumulative effect assessments, and integrating and communicating science with local knowledge.

Deliverable:

- Two Case Studies outlining utility of applying ABEKS data and other existing TK data to a management decision-making process.

Assumptions:

- The case studies will focus on two existing processes (PC Herd Assessment and North Slope plan) and will not require the identification of a new project.
- Technical steering committees will be available to provide comments and advice on the project.
- A suitable contractor will be found to carry out the analysis and write the final report.



2.1 UNDERSTAND “CUSTOMER” NEEDS

Many of the existing decision making boards and councils in the north have representation from Gwich'in, Inuvialuit, Territorial, and Federal representatives. In order to successfully secure buy-in of program results, the data being collected must meet the information and decision-making needs of these agencies. The data must also be available in a form that can be meaningfully accessed by these various agencies that have information needs at a variety of levels of complexity.

Deliverable:

- User needs profile (community, regional, national, international)
- Recommendations for meeting these needs.

Assumptions:

- User groups will be willing to engage/discuss their needs with ABEKS.
- User groups know what their needs are, and have established transparent decision making framework.

2.2 ASSESS LONG-TERM UTILITY OF ABEKS DATA SET

The long term nature and northern focus of ABEKS is unique in Canada's ecological monitoring landscape. However, there are new monitoring programs developing in the north using a variety of new tools and technology. The results of the first two goals of the project will help determine the utility of ABEKS current approach, the value it provides within the context of northern monitoring programs, and recommend any future changes or revisions that may be considered.

Deliverable:

- Report providing summary of Coop data most relevant for case study.
 - Quantitative and qualitative summary of Co-op data/ information.
 - Discussion of meaningful application of results (eg. integration with scientific knowledge).
 - Section evaluating the ABEKS program as it was applied in the case study.
 - Section with recommendations for improvement.

Assumptions:

- Some preparatory work has already been conducted to identify relevant published sources.

3 METHODOLOGY

The following section describes the methods that will be used to carry out the project,

3.1 CLARIFY PROJECT GOALS, OBJECTIVES, AND DELIVERABLES

1. **Project Kick-off Meeting:** The ABEKS Program Coordinator will meet with the PCTC and WMAC staff to discuss the project to ensure there is a common understanding around the project goals and deliverables.



2. **Identify Contractors:** Based on project needs, ABEKS Program Coordinator will identify and engage contractor(s) to assist in the project.

3.2 REVIEW OF TK INDICATORS TO BE USED IN CASE STUDY ASSESSMENTS

1. **Information Gathering:** Review existing indicators with study teams to identify which indicators to include in the review and what questions/analysis will be applied as the test.
2. **Compile Database:** Based on information/direction provided by study teams, the ABEKS and any relevant scientific data will be assembled for analysis and review.
3. **Database Analysis:** Analyze and assess data for quality and decision-making.
4. **PCTC integration and decision making framework:** TK and Coop data are placed within a decision making framework to provide transparent and meaningful weight and use for management/ recommendations.- contractor/ team – decision making and qualitative skills
5. **Review:** Study teams to review and verify analysis.
6. **Report:** Contractor to compile all information into final report, including recommendations identified through analysis and dialogue with study teams.

3.3 GAP ANALYSIS

1. **Review Monitoring Programs:** Gather existing literature on previous, existing, and emerging monitoring programs.
2. **Conduct Primary Interviews:** Contact user groups and conduct primary interviews with key individuals to determine TK data needs and the utility of the ABEKS database.
3. **Evaluate ABEKS:** Using information gathered, a simple evaluation using ABEKS database and management needs will be conducted.
4. **Prepare summary of results:** Review all information gathered and prepare summary that identifies successes and challenges in applying TK to decision making.

3.4 PREPARE RECOMMENDATIONS AND FINAL REPORT

1. **Review summary:** Review summary with project teams and ABEKS Board and identify key findings.
2. **Conduct a Cost Analysis:** Conduct a general cost analysis for key recommendations for inclusion in the final report.
3. **Draft Final Report:** A final report outlining the two case studies, key findings and recommendations will be produced for distribution.

