

Inuit Observations on Climate Change

Trip Report 3: February 14–21, 2000

Sachs Harbour, Northwest Territories

1. Goals of the Project and Purpose of the Trip

Inuit Observations on Climate Change has two goals. The first is to raise public awareness on climate change; the second is to examine the relationship between traditional knowledge and scientific research on climate change.

- **Goal one:** to produce a video that will demonstrate to Canadian audiences, interest groups and decision-making forums that climate change is having an impact on the traditional lifestyle and livelihood system of Inuit on Banks Island in the Beaufort Sea.
- **Goal two:** to understand the traditional knowledge of Inuit on climate change and to explore the contribution that traditional knowledge, local observations and adaptive strategies can make to scientific research on climate change in the Arctic.

This was the project team's third trip to Sachs Harbour, an Inuvialuit community on Banks Island, 500 km northeast of Inuvik. Residents have a close relationship with the Arctic environment: to support themselves, they continue to harvest fish from the sea and lakes on the island as well as animals from the tundra.

The purpose of the trip was to:

- videotape Inuit as they perform traditional activities during the Arctic winter, such as muskox harvesting;
- videotape the environment of Banks Island during the winter;
- videotape short interviews with community members about changes to their environment that may be caused by increased climate variability, about the effect of these changes on their livelihood system, and about their ability to adapt to these changes; and
- record longer, more detailed interviews with selected community members on audiotape to gather data for the project's journal article on the potential contribution of local observation and traditional knowledge to research on climate change in the Arctic.

The project team worked in two groups to accomplish these tasks: a video group to videotape traditional activities on the land and record on-camera interviews, and a science group to conduct more detailed interviews in Sachs Harbour, which were recorded on audiotape.

2. Trip Scheduling and Interim Activities

During the participatory planning workshop for the project (June 1999), community residents scheduled the project's winter trip for November 1999. The Hunters and Trappers Committee of Sachs Harbour subsequently decided to conduct a commercial muskox harvest in the autumn and early winter of 1999. While the harvest was in progress, it required the full attention of the

community, so the winter trip was rescheduled to February 2000. This new time suited the project well: although it was still mid-winter, we had six hours of daylight, more than enough to videotape traditional activities at that time of year.

The project team decided to conduct one interim activity between the summer and winter trips—videotaping the annual migration of the Dolphin Union caribou herd from Victoria Island to the mainland. In recent years, the sea ice on the Dolphin Union Strait has frozen later than usual. Consequently, caribou have been crashing through thin ice and drowning as they have migrated across the strait. The team thought this image of climate change in the Arctic would make a dramatic opening to the video production. Terry Woolf, the project's camera operator, chartered a helicopter from Cambridge Bay, and attempted to videotape the herd as it crossed the sea ice in early November. Unfortunately, poor weather limited his ability to get good pictures of the migration. The cost of this interim activity was approximately \$6,000.

The project also produced a rough, 10-minute video, to show some of the best images from the first two trips. The rough cut was shown to the community during the winter trip, so that local people could see how the video images were being put together and guide the project team on the production of the final version. The rough cut is also being shown to potential broadcasting partners, and was presented to IISD's Board of Directors in January. The cost of producing it was \$1,498, of which \$1,098 was charged to the project. IISD contributed \$400 to the rough edit.

3. Team Members

The following team members took part in the winter trip to Sachs Harbour:

Neil Ford – Team leader (profiled in the project proposal)

Video Group

Terry Woolf – Camera operator (profiled in the project proposal)

Lawrence Rogers – Audio recorder/video crew (courtesy Inuvialuit Broadcasting Society)

Bonnie Dickie – Director. Bonnie is a new member of the video group. She will direct the video sequences during the winter and spring trips to Sachs Harbour, write the script for the video and supervise the editing and post-production process. Bonnie is a film and video director with more than 14 years of experience in Northern Canada, including seven years with CBC North. She has directed numerous documentaries for the National Film Board of Canada (NFB) and has won a Gemini Award for *They Look a Lot Like Us*, a film documenting the experiences of a group of Inuit children on a trip to China. Her latest film, *Hollow Water*, a documentary for the NFB on traditional healing in a Northern Manitoba Ojibway community, will be released this spring.

Science Group

Norm Snow – Technical specialist/lead scientist (profiled in the project proposal)

Dyanna Riedlinger – Researcher/graduate student (profiled in the project proposal)

John Nagy— Technical specialist/wildlife biologist. John was the “guest scientist” on the winter trip. His role on the project was to interview local people, focusing on changes in the population and behaviour of large mammals on Banks Island because of climate change. For the last 10 years John has conducted research on caribou, muskox and dall sheep as a research biologist with the Government of the Northwest Territories, from a base in Inuvik. His professional background includes 17 years of research on grizzly bears for the Canadian Wildlife Service and the Government of Alberta. John has worked closely with the Hunters and Trappers Committee of Sachs Harbour since he came to the Arctic, and sits on numerous boards and committees related to the co-management of wildlife in Arctic Canada.

4. Project Planning Meeting and Conference Call

On February 3, the Winnipeg-based members of the project team met with Fikret Berkes, the project’s adviser on traditional ecological knowledge. This meeting focused on the second objective of the project—the potential contribution that local observation and traditional knowledge can make to scientific research on climate change in the Arctic. In a conference call on February 10, the team discussed the same issues with its Inuvik-based members, Norm Snow and John Nagy.

Because the project has generated a lot of interest from both the public and the scientific community, the team discussed a strategy to share knowledge about the project before the release of the video and scientific reports. Fikret Berkes encouraged the team to highlight the project’s achievements at conferences and workshops, including a conference on climate change in Yellowknife from February 26-28, and a conference on communicating climate change in Waterloo, ON, at the end of June 2000. The team decided that Norm Snow, the project’s lead scientist, would represent the project at Yellowknife, and that Neil Ford, Graham Ashford and Rosemarie Kuptana would make presentations at the conference in Waterloo. The team would also like to premiere its video on climate change at the Waterloo conference, if the production is completed by the end of June. Dyanna is also planning to present a paper on her role in the project at a conference on Arctic climate change in Aberdeen, United Kingdom.

The project’s work plan does not include the presentation of interim results at conferences such as those itemized above. According to the work plan, a strategy to share the knowledge gained through the project at conferences and decision-making forums will be developed at the project’s final workshop, tentatively scheduled for September 2000. Since there are so many opportunities to attend relevant conferences before September, people at the planning meeting discussed the possibility of holding the final conference at an earlier date, so that funding to attend conferences could be secured. No firm decision was taken.

Fikret also encouraged the project team to write more than one scientific paper based on the fieldwork in Sachs Harbour. In addition to the major paper to be coordinated by Norm, the following more specific papers were proposed:

- A paper on the project’s participatory methodology and communication strategy, to be coordinated by Neil Ford; and
- A paper on traditional knowledge and local observation of changes to sea ice, to be coordinated by Theresa Nichols.

Participants at the planning meeting and conference call also discussed the use of more innovative methods of understanding traditional knowledge on climate change. Until now, the science team within the project has relied on detailed interviews with individual Inuvialuit. Participants thought that group interviews and story-telling sessions might result in a different or deeper understanding of traditional knowledge. The science team agreed to try these techniques during the winter trip.

Finally, participants discussed ways to evaluate the project for its funding agencies. Fikret (as an outside adviser who has not participated in fieldwork) agreed to conduct an evaluation of the project in July or August, after all four trips to Sachs Harbour have been completed and the video on climate change has been produced. Part of this evaluation will include surveys or interviews to determine community responses about the effectiveness of the project. Dyanna agreed to coordinate the evaluation by local people as part of the overall evaluation to be conducted by Fikret.

5. Video Group Activities

The video group worked in clear, cold winter weather, with daytime temperatures hovering around –35 degrees C and daylight lasting from 10:00 a.m. to 4:00 p.m. Terry Woolf, the camera operator, used chemical warmers inside a “polar blanket” to ensure that his video camera worked properly in such extreme conditions. The group’s production schedule was as follows:

Monday, February 14

- Arrival in Sachs Harbour; production meeting with John and Samantha Lucas regarding the next two days of video work.

Tuesday, February 15

- Videotaping wildlife north of Sachs Harbour
- Interviews with John and Samantha at a winter camp on the tundra

Wednesday, February 16

- Videotaping caribou grazing on the snow
- Videotaping a traditional muskox harvest, including skinning the animal and butchering the carcass near the Lennie river, 50 km from Sachs Harbour
- Attendance at a meeting of the Hunters and Trappers Committee (Neil only)

Thursday, February 17

- Sequence on trapping with Trevor Lucas
- Sequence on local dog teams
- Kitchen table interview with John and Samantha
- Interviews with Andy Carpenter and Peter Esau, with the science team
- Videotaping a community meeting to discuss the project

Friday, February 18

- Interview with Frank and Martha Kudlak, community elders
- Sequence on ice-gathering with Frank and his grandson Nathan
- Videotaping community shots

- Interview with Norm Snow
- Interview with Dyanna Riedlinger

Saturday, February 19

- Videotaping interviews between the science group and three women elders (Edith Haogak, Lena Wolki and Sarah Kuptana)
- Videotaping community shots
- Sequence with science group members discussing their results
- Interview with John Nagy

Sunday, February 20

- Sequence on polar bear fleshing with Sarah Kuptana and Leah Wolki
- Videotaping community shots
- Videotaping sunrise and sunset

The video group was satisfied with the quality of pictures that it taped. Some sequences, particularly the muskox harvest, will portray traditional winter activities very powerfully. The interviews on climate change during the winter however, were not as powerful largely because the Inuvialuit have not noticed the same degree of change that they have had in the summer. Generally, they have observed that winters are warmer on Banks Island than they were 15 or 20 years ago, with minimum temperatures hovering around -35 or -40 degrees rather than -50 degrees C. The winters are also shorter, with freeze-up coming about a month later than before and the spring thaw a few weeks earlier. But these changes have yet to significantly affect wildlife behaviour and the ability of local people to harvest animals from the land. Most local people think that fluctuations in wildlife populations and changes in behaviour can be explained by variations in natural cycles rather than by climate change. The team expects climate change to be much more obvious during the May trip, when the snow should be melting earlier than usual, affecting the ability of the community to participate in the spring goose hunt.

6. Science Group Activities

The objective of the science team during trip 3 was to conduct interviews in the community on the potential impacts of climate change on land animals such as caribou and muskox populations, as well as the change experienced by the community during fall and winter harvesting and community activity.

Over a six-day period, the science team conducted interviews with 13 community members. The interviews were conducted over tea in an informal, flexible manner in the homes of the interviewees. They built upon and enhanced observations and knowledge of climate-related change documented during the previous two trips and sets of interviews. Interviews were conducted primarily with active harvesters and elders, and were structured several ways:

- a) husband and wife group
- b) two active hunters together
- c) father and son group
- d) two elders
- e) individual interviews.

The interviews began by establishing when the interviewee came to Banks Island and the extent of the person's knowledge of the area, including primary hunting and travelling areas. For example, a discussion about where a former trapline was located would begin the interview.

Dyanna expanded on this information in the following week using maps created by community members indicating their knowledge and use of land and ice during their lifetimes.

Interview questions were structured around community knowledge and understanding of:

1. caribou, muskox and wolf populations over time (with some questions on geese and foxes)
2. animal condition and health
3. severe weather events and impacts on caribou and muskox
4. vegetational changes in the area
5. snow depth on winter ranges
6. changes in insect numbers and species, and their relationship to caribou and muskox
7. general weather patterns; i.e., winter temperatures, wind patterns and snowfall
8. general questions on how changes (i.e., warmer winters) will have an impact on animal populations, and the impact on the community.

The interviews were loosely structured around a series of questions to promote discussion of wildlife-related changes over time. Discussions would begin with the interviewee recounting the decade during which he or she first came to Banks Island, then proceed decade by decade to the present. They would also include recollections of knowledge and stories passed on by parents and grandparents. Several key events were also used as starting points for discussion, including a wolf-poisoning program in the late 1950s that had significant ecological impacts, as well a severe icing event in 1952 that resulted in movement of caribou off the island.

All interviews were taped on audiocassette and will be transcribed in the following weeks. Based on initial observations of the interviews conducted during trip 3, several points can be made:

- The community has an abundance of knowledge on historical and present wildlife populations, behaviour and health, and on the relationship between weather and wildlife.
- Understanding climate-related change and wildlife is complicated by other factors such as harvesting patterns, species interaction, and the like
- Knowledge of active harvesters clearly contributes to current science-based knowledge of wildlife and climate change; it is spatially and temporally extensive and can help 'piece together' the number and condition of animals over time. Active harvesters obtain this knowledge by continually monitoring animals in all seasons.
- While the specific impacts of climate change on wildlife populations may be difficult to assess, what is clear is that any wildlife-related changes will also have an impact on the community and community harvesting activity.

7. Community Liaison

Neil attended a meeting of the Sachs Harbour Hunters and Trappers Committee on Wednesday, February 16, to brief committee members on project activities and to seek advice about community approval for the video and scientific reports. The committee chairman, John Lucas

Jr., suggested establishing an advisory committee to guide the team on the production of both the video and the reports. It will be formed in the next few months and will likely consist of two members of the HTC: an elder and another community member. Generally, the HTC was very satisfied with the progress of the project.

The project team also hosted a community meeting on Thursday, February 17, to show a 10-minute “rough cut” of videotape from the first two missions, brief local people on project progress and answer questions about the project in general. Seventeen people attended, which is considered an excellent turnout in a hamlet with a winter population of just over 80 people, including children. They were impressed with the video and the way in which it portrayed community life and traditional activities. Discussion then centred on ways for the community to become involved in the final production of the video, including script-writing, editing and post-production.

The project’s work plan calls for one member of the community to travel to Southern Canada to participate in post-production activities and approve the video on behalf of the community. The people who came to the meeting said they would rather discuss the general shape and tone of the video with the project team during the spring trip to Sachs Harbour. Then they would like a member of the project team to visit the community midway through the editing process, to show the entire community a “rough cut” of the final video, so that suggestions for improvements or alterations could come from the entire community. Neil promised to try to work these changes into a revised work plan and budget. Local people who attended the community meeting were supportive of the project.