Snapshot of First Peoples' Constituency Groups, Science and Technology Information Strategies, Policies, and Guidelines, and the Federal Government

Final Report
Presented to
The Council of Science and Technology Advisors
Industry Canada

Dr. Lorna Roth, Associate Professor
Chair, Department of Communication Studies
Concordia University, Montreal

September 8, 2002.

The purpose of this report is to focus on First Peoples' and federal government interactions in relation to two-way information dissemination and mobilization in the science and technology context. The Council of Science and Technology Advisors' request for aboriginal case study materials is an important recognition of the following factors:

- The North consists of one third of the land mass of Canada and is the location of many of our natural resources and much scientific research.

- Although the aboriginal population consists of only 4.4 percent of the total Canadian population, it is on their territories, particularly those located in the North (above the Hamelin line – North of 55 degrees of latitude) that the consequences of industrial contaminants and environmental pollutants are showing their impacts in a highly visible manner. Consequently, it is in their food chain and in their physical and cultural environments that risks and hazards are being made evident. These issues merit thoughtful discussions and dialogue among scientists and First Peoples in order for all groups concerned to make healthy lifestyle, environment-safe, and culturally-appropriate, decisions.

- The aboriginal population is growing faster than the general Canadian population leading us to recognize the need for clear scientific and technical information both within their education systems and their communities' general pool of public knowledge accessible to youth, elders, and other age- and linguistic-group subsets.

This report deals with two key forms of communications between the federal government and aboriginal communities. The first looks at the necessary engagement between the two groups in order to establish common levels of trust in an ongoing day-to-day relationship. The second focusses on communication strategies to be mobilized when dealing with potential crises, issues of risk and uncertainty, special information needs or emergent scientific problems and challenges, such as global warming or POP contaminants in a particular fish species. What are the special considerations to be taken into account that would make communicating with First Peoples different from information dissemination approaches to other constituency groups in the Canadian population? Among these are: their geographical isolation and cultural distance from multiple science resources, inconsistent access to the Internet, lack of foundational information to undertake their own scientific research, and language barriers (both terminological and conceptual).

This study is based on a literature review, first-hand experience of working in and out of the North and South with First Peoples for the last 2.5 decades as a communications and teacher-training consultant, interviews with 15 people, some of whom are Northern scientists and others of whom are Northern researchers (See list of interviewees at end of report). All of my interviewees have either lived or extensively travelled North of 55 for some period of their lives, have knowledge of cultural distinctions among First Peoples or have worked for /within organizations around issues of science advising, research, or information dissemination and mobilization. Their fields of scientific

expertise are varied. Consequently, they provided me with both a wide range of opinions and knowledge based on their specific research histories, and a set of common concerns based on from their recognition of research as a 'human' activity, requiring engagement with the socio-cultural community in which the research is being undertaken.

Key issues Emergent from the Study:

- A common recognition that trust relations between First Peoples and representatives of the federal government have to be repaired and built with more confidence in each others' integrity. This particularly impacts in the context of trying to work with elders, whose traditional knowledge would be a valuable addition to a research project, but who might lack confidence that their knowledge will be appropriately respected. It also becomes pertinent in the context of risky and uncertainty issues. For example, when scientists are assessing whether or not Inuit should continue eating contaminated country foods and in what quantity they can safely consume it, it becomes evident that there is no simple answer. Whose information can be definitively trusted?

- The issue of how to get access to and ethically deal with traditional knowledge emerged as a common and often problematic concern of trust among those interviewed. For example, if the Cree share their traditional knowledge about animal migration patterns, how will this knowledge be used? Can it be abused? Their concerns about what might happen to their intellectual and cultural properties became very evident in the context of our discussion of trust. Here is a typical comment from one of the Cree Regional Authority's recent studies on environmental priorities:

> "Traditional knowledge of people has never influenced policies. Sometimes I wonder why they bother asking."
> Council member
> Lussier, C. et al: 2000, 44.

- The objective that information programs/campaigns should be culture-specific. Particularly in the case of the Inuit, it was strongly argued that Inuit-specific programs be distinct from those of First Nations and that this would require separate funding allocations;

- The knowledge that the best communications around science and technology takes place in a lengthy and sustained time framework that takes into account the different cultural perceptions and uses of time. This challenges the time-efficient patterns so integral to our Southern and Western ways of functioning;

- A common sense that interpretation and translation create challenges both conceptually and linguistically for interpreters and scientists. Not all scientific and

technical terms have an equivalency in aboriginal languages. Nor do outside researchers always have sufficient familiarity with aboriginal languages to comprehend the difficulties involved moving between English, French, and the aboriginal languages;

- The recognition that the middle North, i.e. the Northern parts of the provinces, on which are located many rural and native communities, tends to be neglected in terms of science and communications policies and strategies. I am referring here to the large number of small aboriginal communities in the boreal forest region of the Canadian shield – from the Rockies to the Atlantic – which do not generally benefit from geographically-focussed programs.

- To facilitate dissemination of critical messages or health advisories, it was identified that more attention could be paid to uses of local media infrastructure.

- Adequate logistical support and funding for research programs and their communications' components in First Peoples' communities, is critical.

- Development of long-term research planning strategies in a co-ordinated fashion would be wise. Several commented negatively on the laissez-faire, last-minute, or ad hoc approach to consultation process. Much discussion took place around the issue of consultation. The next section of this report will elaborate some of the critical factors involved in the consultation process.

Models of Communications and Consultation:

Depending on one's objective, a toolkit of methods for communications and consultation would be useful to provide a range of interactional possibilities. When there is a need for emergency communications, agencies often resort to quick-paced in/out models of information dissemination and consultation. When there is an opportunity to work over a long period of time, it is deemed more appropriate to invest in the construction of meaningful and collaborative partnership relationships.

The In/Out Model was criticized by all of the interviewees as not working. In this model, the agency flies in for a quick meeting with the community to explain a proposed project's objectives and possible impacts or to elaborate details of a particular scientific/health advisory to "target audiences." A preparatory announcement is made on community radio; a poster is placed at a strategic location in the community to invite the population to a meeting. The meeting is held, the community residents attend (more often than not because of the refreshments and as an excuse for a social gathering), the project/advisory is explained either in elementary language or in highly technical (incomprehensible) terms. Few questions are posed, refreshments are served and the science or government representatives leave the community, assuming that because there was a large turn-out and the audience didn't ask a single question, that they MUST have understood the details. Little, if any, follow-up occurs after these ad hoc, "consultation" meetings.

In a recent study of Environmental priorities (2000), several Cree interviewees commented on the quality of consulting based on their past experiences with researchers:

> An 18$ million dollar study was done on mercury. It ended up in them just telling us "don't eat fish."
> Band Employee
> Lussier, C. et al: 2000, 14.

> (During the Great Whale Assessment), it came from the core of their being what they said in those interviews. And it's an insult not to see on paper what was said.
> Community Member – woman
> Lussier, C. et al: 2000, 26.

> There is no vice-versa when they do consultation. What the Crees say goes off the table. If they want to involve the Crees in projects, they should listen to their opinions and concerns.
> Woman – teacher.
> Lussier, C. et al: 2000, 28.

> The word "consulting" is wrong. To me it means: "I'm talking to you about this thing that will happen, but the ball rests on me, the final word is in my camp.
> Community member – woman
> Lussier, C. et al: 2000, 38.

> Sometimes consulting is a joke. They come up here for one day and talk about a partnership. What kind of partnership is this?
> Band employee
> Lussier, C. et al: 2000, 40.

To be fair, these kinds of meetings and consultations take place less frequently these days than they used to, but they still do occur and do not bode well for the development of mutual cross-cultural trust. What has replaced them is the recognition of the importance of reliable contacts in the communities who, in turn, can pass on the information that scientists wish to convey to a population. In the literature, this approach is called the *two-step flow method of information dissemination* and is widely used in health and other sorts of campaigns (Katz and Lazarsfeld, 1955).

Within this approach, it is maintained that opinion leaders can influence the eliciting of a positive response to novel ideas and consumer items in what is perceived as a generally passive population. Early development workers used this approach to argue that "peasants" could more easily be prepared for the acceptance and adoption of technological innovations through the face-to-face contact with a respected leader or friend. AIDS campaigns in Africa currently depend extensively on this method of information dissemination. Taken together within the context of a broader multi-media campaign, this is an effective method of one-way information dissemination, but

assumes that the message receiver is passive and unable to interpret the information on her own. In other words, it does not deal with complexity very well, in either the message or the receiver.
Both the in/out meeting method and the two-step flow approach tend to be unidirectional. An alternative to these limited perspectives are multi-dimensional communication models, one goal of which would be the long-term establishment of ongoing research/ dissemination relationships among aboriginal publics, scientists and technical experts, communications mediators, and government representatives.

Cross-cultural trust can only be built over a long period of time and in the context of consistent and honest relations. Several people pointed out how important it is to have a high correlation between what government representatives, including scientists, say and do. Time and timing are also very important aspects of trust relations. It takes time to get to know someone; to build (wo)manpower in a community, to develop understanding. In the words of a Cree elder,

"We have to do things slowly, carefully, and talk things out" (Lussier et al: 2000, 42).

One of the dynamic methods by which social science researchers are working, which can and has been borrowed by natural scientists, is Participatory Action Research. This approach is central to each of the three 'best practices' I have outlined at the end of this report. It is what enables communities to become empowered through their collaboration with scientists and technical experts. It is central to the trust-building process.

Participatory Action Research

Participatory Action Research (PAR) emerges from, and in some ways represents a critique of the anthropological tradition of participant observation. Participant observation requires that the researcher occupies what are, essentially, contradictory positions in relation to the culture being studied: the researcher is to learn by being involved and at the same time to acquire data from the perspective of a detached observer. PAR begins by questioning the possibility of maintaining this dual role: of critical issue is the belief that research involving human beings and human communities cannot be conducted in a purely objective fashion. By the fact of their presence, by the questions which guide their study, and by the uses to which their data is put, the researcher is implicated in a real world scenario of human interaction and political struggle. In this way, PAR can be seen to be critical not only of certain methodological approaches (such as participant observation), but of the more general, orthodox scientific worldview which informs them. Against this paradigm, PAR might be seen to posit a more holistic, pluralist, and egalitarian approach guided by holistic and systemic thinking.

As the term suggests, PAR emphasizes an active engagement in the community by the researcher. The community is involved in co-directing the project, from the formulation

of the proposal to the uses to which the final results are put. Due to the participatory, dialogic nature of this approach, the direction of the research is often difficult to formulate in advance. Rather than attempting to compose and apply a rigid methodological framework, the participatory action researcher is open to changes in the direction of the project in response to the direct input and articulated needs of the community involved. PAR tends to address marginalised communities and aims to produce knowledge directly useful to the community. It seeks to empower the group through the use and validation of their own knowledge. It is an activist approach, very sensitive to the political fabric and aspirations of the community and human beings involved.

PAR draws upon a wide range of methods. Community concerns may not be clearly defined within a certain discipline: because of this, PAR tends to emphasize a cross or inter-disciplinary approach. Quantitative and qualitative methods might both be employed. Orthodox methodologies such as data gathering and analysis usually take second place to processes of collaboration and dialogue. The project might involve the training of indigenous members of the community. Community meetings, storytelling, socio-drama, plays, drawing and paintings complement systematic information gathering and survey techniques.

The open-ended approach of PAR can produce difficulties for the researcher. The goals of the community can and often do develop and change through the course of the project. In some cases, the conceptual terms used during the formulation of the proposal may not be relevant by the end of the project. Remaining responsive and committed to the political goals of the community can place a considerable demand on the researcher's resources.

These are difficulties inherent to any form of activist, participatory approach. PAR is a methodology which, ideally, addresses the demands of communities and groups for practically and politically-oriented research agenda items, such as environmental protection, food-chain safety, and other scientific and technical issues pertinent to First Peoples and their territories.

Although PAR would not be appropriate to all S & T projects, what PAR shows us is a model that seems to be more consistent with the communication and socio-cultural needs of First Peoples. Furthermore, it conforms to the Nunavut and Aurora Research Insitutes' Research Licensing regulations, as well as those of Yukon College and the Association of Canadian University for Northern Studies (ACUNS) *Ethical Principles for Doing Research in the North.* Consequently, PAR principles should be considered seriously as an integral part of research proposals, when appropriate.

Recommended Strategies and Guidelines to Promote More Effective Communication Between Federal Government and Aboriginal Communities

- A policy outlining culturally-appropriate communications strategies, principles, and guidelines should be integral to the objectives of all projects being undertaken with aboriginal communities. Research is dependent on public communications for credibility. It should be encumbent on government to ensure that every department has a communications strategy that is flexible in relation to its own and First Peoples' needs and interfaces.

- In the cases of both long-term, ongoing community/government dialogue or in urgent/risk communications, messages and information exchange should acknowledge different cultural patterns of silence, utterances, timing of information dissemination, and sensitive translation/interpretation issues.

- Ongoing relationships should be established between First Nations and Inuit organizations' personnel and should be maintained through regular contact. In particular, personal contacts with key people involved in information dissemination should be cultivated. Keeping the lines of communication open with the native and Inuit organizational hierarchy is important. It takes time to find the right persons who will take an interest in maintaining a relationship with scientists, but once identified and negotiated, a solid relationship of trust can be built.

- Effort should be made to establish a communications (media and interpersonal network) infrastructure for each program or project, including scientists/trained in cross-cultural communications and/or aboriginal communications consultants who understand science and technology terminology and concepts. Allocate funding to assure that a communications strategy will be carried out over time. Create opportunities to build on First Peoples' communications capacity whenever possible.

- Identify regional disparities more carefully. Specific areas which have been neglected should receive more scientific research attention.

- Before beginning a new project, work with key people and local/regional entities to assure a common understanding of objectives and to assure ongoing local participation. Identify purposes of project and do follow-up together: be clear about what you will be doing with their information, what kind of feedback you will expect from the community, what kind of feedback you will give back the community.

- Government should be prepared to provide resources for First Peoples' input into their programs of research. On many occasions in the past, input has been requested but government was not prepared to provide resources or funding in exchange for it.

- Review and identify new research with key community members. Determine with the community the cultural acceptability of the work to be undertaken.

A Quick Overview of Communications Tips:

Media Currently Being Utilized by the Federal Government in Aboriginal Communities

- overheads, power point presentations, maps, charts, community radio, tape recorders, local television, pamphlets, videos, digital cameras, films, photos/slides, newspapers, Bulletin Boards at local venues.

Interpersonal Communications Tips

"Success lies in the small details of projects."

- Messages should be straightforward and clear.
- Don't address people as if they won't understand your message. You can use sophisticated metaphors, as long as they are easily understandable and culturally appropriate.
- Know your public's culture – different publics appreciate different approaches.
- Flying in to have a meeting, setting aside a half hour or an hour for the meeting will not be nearly as successful a communications strategy as would be establishing a long-term relationship with well-respected community members and spending time listening with interest to what they have to say: sharing information in a non-hierarchical fashion, i.e. giving legitimacy to First Peoples' views about an issue.
- Always verify that the time you schedule a meeting does not conflict with some popular, local activity.

- It is important to evaluate the effectiveness of messages and their reception within First Peoples' communities. Often, high meeting attendance statistics or the point that there were not a lot of questions has been taken to be an indicator of successful communications. This is not necessarily the case and should be tested. Other media used in information dissemination should also be evaluated for its effectiveness. There are often surprising and unpredictable responses to messages that would be useful feedback for future projects .

In an effort to assist northern communicators and researchers to better plan, construct, and disseminate messages to communities, Lampe, Furgal and Craig (2000) have proposed several of the following suggestions and guidelines. I have added several of my own to those which they have listed.

Tips for Using the Media in General – Building Communications Capacity

- Information should be in plain language, clear, and concise. This includes a plain language format for technical terms as well.
- Have several translators/interpreters go over the information first. Dialectical differences should be considered in translation.
- For risk issues, include risk AND benefit information.
- Include contact information for follow-up and further inquiries.
- It is useful to convince key leaders in communities about the importance of the issues you are dealing with so that they can, in turn, represent the information to

residents in a culturally-appropriate manner – either in person or through the local media.

- Use existing communications infrastructure available in each community: local radio, community television, the Aboriginal Peoples Television Network, regional radio, regional newspapers, etc.
- Always make your messages relevant to *this* community, *this* set of residents. In other words, always know and target the specific portion of the public that you will need to be working with.

Guidelines for Print Media (Posters, Fact Sheets, etc.)

- Use eye-catching headlines.
- Posters should provide one main message and limited text. Use English/French and the aboriginal language in the same poster, fact sheet, if possible.
- Use local photos, maps, illustrations. Highlight the region/community.
- Use bullet points or short sentences. Don't complicate the message with statistics.
- Use cartoons or interesting visuals to capture public's attention.
- Use images of local people, whenever possible, so that views can identify them immediately. This lends visual credibility to the message.

Guidelines for Videos

- Involve local people as presenters and as participants in the video content.
- Use the local dialect for presentation of information.
- Use images of the local environment.
- Let people know of the video and make it available for borrowing to view on their own time.
- Inform people of what they will be seeing at the beginning of the video and review what they have seen at its end.
- Video is youth's preferred media in the North.

Guidelines for Radio Broadcasts or Public Service Announcements

- Prepare material for local community and regional radios, as well as CBC/Radio Canada.
- Local project collaborators should present the information
- Make programming lively and fun to listen to.
- Insert PSAs within contexts of widely-listened to programming. For example, in Kahnawake, PSAs are inserted in their most popular program on the air: Radio Bingo. This way, they have a captive audience to listen to important information.
- Provide lots of examples. Use humour to get points across, if appropriate.

A Comment on Websites

- Often the enormity of data on websites precludes finding information easily. In other words, the pathways or routes to what one is searching are often more complicated than necessary. Consequently, website design needs to be carefully conceived, so that those First Peoples who have access, can sort out the appropriate route for their search.

- J. Mark Stiles and Peter J. Usher have produced an excellent booklet for the Research Department of the Inuit Tapirisat of Canada (1998), now called ITK (Inuit Tapiirit of Kanatami). Its title is: A Guide to Making Presentations in Northern Communities for the Northern Contaminants Program. I got a copy from Sarah Kalhok (INAC) and am including it with the hard copy of this report because it is extremely valuable for those who will be presenting information within the Nunavut region.

Three Examples of Best Practices:

1. Northern Contaminants Program – http://www.inac.gc.ca/ncp/

Brief Synopsis of Project, excerpted from the above website:

The Northern Contaminants Program (NCP) was established in response to studies that showed the presence of contaminants in the Arctic ecosystem. Many of these contaminants have no Arctic sources and yet some are found at high levels in animals at the top of the Arctic food chain and in humans. The three main contaminants groups of concern are persistent organic pollutants (POPs), heavy metals and radionuclides.

The NCP is managed by the Department of Indian Affairs and Northern Development in partnership with other federal departments (Health, Environment, Fisheries and Oceans), the three territorial government departments, Aboriginal organizations (Council of Yukon First Nations, Dene Nation, Inuit Tapirisat of Canada, Inuit Circumpolar Conference) and university researchers. The aim of the NCP is to work towards reducing and, where possible, eliminating contaminants in traditionally harvested foods, while providing information that assists informed decision-making by individuals and communities in their food use.

Phase I of the NCP (1991-1997) focused on determining the main sources of contaminants and their transport pathways and fate in the Arctic, as well as their levels and spatial and temporal distribution within Arctic ecosystems and humans. The results are being used in international negotiations to control contaminants. Education and communication of contaminants information with Northerners was a major emphasis of phase I, led by the Aboriginal organizations. The NCP produced an extensive assessment in1997, entitled Canadian Arctic Contaminants Assessment Report. Accompanying this report is a community reference manual, entitled Highlights of the Canadian Arctic Contaminants Assessment Report.

The NCP Phase II is a five-year program (1998-2003) that funds research on northern contaminants issues at $5.4 million per year, in addition to supporting the Centre for Indigenous Peoples' Nutrition and Environment (CINE) and the participation of Aboriginal organizations in the NCP. The emphasis of phase II is on expanding human health research, developing effective community dialogue, and continuing work on international agreements to control contaminants.

Each year, the results of the NCP are published in the Synopsis of Research report. In addition, an annual Summary of Northern Contaminants Program Projects provides a quick, non-scientific reference guide on current-year projects being conducted by the NCP.

The NCP works closely with the Arctic Council's Arctic Monitoring and Assessment Programme (AMAP). The goal of this cooperative program among the eight Arctic countries, Arctic Aboriginal organizations and a number of observer countries and organizations is to monitor and assess anthropogenic pollution in the circumpolar Arctic. The results of NCP projects represent the main Canadian contribution to AMAP, and those of NCP Phase I formed an integral part of the comprehensive AMAP Assessment Report: Arctic Pollution Issues, published in 1998.

NCP findings have provided substantiation for the calls for action on international controls of contaminants. POPs and Heavy Metals Protocols under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (CRTAP) have been signed by 36 countries, including Canada, since June 1998. Negotiations for a legally binding global instrument on POPs under the United Nations Environment Programme have now also been completed with the signing of the POPs Convention in Stockholm, Sweden on May 23, 2001.

2. Ashkui Project, Labrador –

Brief Synopsis of Project excerpted from:
http://www.stmarys.ca/administration/gorsebrook/research.htm

The Labrador Project -A research partnership between the Gorsebrook Research Institute, the Innu Nation, and Environment Canada. Within a broad research objective of developing baseline data on the ecology of Labrador this projects looks to Innu concepts of the landscape of Labrador to orient a variety of science and social science research projects.

The following clearly outlines the Ashkui Project as an exemplar of a "best practice." Photos and more information can be located at the following website, from which this description is excerpted:

http://www.nist.gov/public_affairs/Posters/ashkui.htm

Poster presented on March 6-8, 2002 at the conference on Communicating the Future: Best Practices in Communication of Science and Technology to the Public, co-sponsored by the U.S. Department of Energy Office of Science, and NIST. Poster topics were selected as "best practices" through a formal peer review by a committee of distinguished science writers, educators, and researchers.

Innovative Communication Approaches to Link Traditional Knowledge and Western Science: The Ashkui Project

Program conducted by: Environment Canada

Abstract:

The aboriginal peoples of Labrador have over centuries of close connection with the landscape gained a special knowledge of the ecosystem upon which their livlihood and culture depends. Recent work in Labrador is focused on a Cultural Landscape Unit (CLU) approach which uses a landscape feature identified by Innu Elders to orient interdisciplinary research in Labrador.

In general terms, "ashkui" are areas of early or permanently open water, many of which are an especially important resources to the Innu in the spring. Co-researchers from the Innu Nation are helping natural and social scientists investigate the sites and translate project findings to members of the Innu community.

By working from Innu-defined landscape units, local knowledge becomes a basic step towards an overall understanding of the environment. This allows for determinations of environmental change to be made more sensibly and equitably in the local context.

The effective sharing of knowledge across cultures is an essential component of this project. The communication toolkit is made up of three key elements (Special People, Special Places and Special Products).

Budget:

Environment Canada dedicates approximately 180K per year in salary and an additional 75K in operational project resources.

Project partners and external funding agencies contribute up to 250K per annum in project resources excluding their own salary costs.

The very nature of this project is expensive. The Innu knowledge interview work is time consuming and as such requires significant salary resources. Scientific research in remote northern ecosystems also carries major logistic overhead for helicopter charter and field crew expenses.

Special People:

The project team includes a wide cross-section of skills and backgrounds from the social and natural sciences and from the Innu community at large (children to elders). The basic operating principle of the partnership is respect for nature, people, culture, ideas and opinions.

Best Practices:

Design project based on Innu Elder Knowledge
Have community co-researchers involved from start of project
Provide community liaison
Present project in the Innu language
Guide project development from an Innu perspective
Solicit people who value other cultures and opinions
Attract "learners" not "lecturers"
Maximize diversity of project team

Special Places:

The project operates on both local and regional scales. Thirteen ashkui sites, originally selected by Innu elders, comprise the site research network. These sites are situated along a 400 km north to south transect. Spatial and temporal patterns of ashkui across the entire Labrador landscape are being studied using satellite imagery.

Best Practices:

Place can cement the project in the Innu community and culture
Innu camp meetings are superior to "boardroom" meetings
Elders and hunters are more receptive to science when in-country
Innu knowledge is placed on an equal footing with western science
Western scientists learn about practical landscape values
Camps are holistic not reductionist
Relationships are built on many levels
De-emphasize technology - promote communication

Special products:

Provide value back to the community through products such as educational Cd-Roms that highlight Innu and scientific knowledge of ashkui. This Cd-Rom will be used in the Innu school system and is currently being translated into the Innu language by Innu teachers.

The guidance and knowledge of the Innu people, particularly the elders, is valued and respected by producing products that respond to their questions or concerns. Technical reports on water quality are of little value when all you want to know is whether the water is safe to drink, will make good tea or will be good for fish.

Make products relevant. Maps, satellite images and photographs and other visual media are being tested as tools for collection and dissemination of Innu knowledge. RADARSAT images are being used to develop spring ice risk maps for use by the Innu.

Research and Evaluation:

The first year of the project concentrated on orientation, project development and building a relationship with the Innu. The actual project design was developed by the Innu and is based on landscape elements valued by their own culture. Three project teams have been developed; 1) A site research team, 2) a landscape team and 3) an Innu knowledge team. All aspects of the project are grounded within the community and serve to enhance capacity within the Innu Nation.

The program is still in the early stages, and evaluation presently consists of input from the community and others. This feedback has been very positive, the project is gaining considerable attention and recognition for its innovative approach and a number of elements of the project have been adopted by other northern research projects. Evaluation of progress also occurs annually during Branch project planning and other scientific review fora such as the Northern Ecosystem National meeting. These evaluation fora all include review by external peers.

The Innu Nation have taken ownership of the Ashkui Project and thus all aspects of the work are well supported by the community. During the past year, the Innu Nation has provided an Ashkui office in the community of Sheshatshui which has raised the public profile of the project.

All products are developed cooperatively with the Innu Nation and must be approved by the Nation prior to release. The product line is highly varied and includes project newsletters, multi-media applications, Innu school teaching products, posters, in-country sessions, web sites and a variety of reports and publications. Copies of all photographs, interviews and videos are provided back to the community.

Authors
Geoff Howell and Alex T. Bielak, Environment Canada

Contact
Geoff Howell
45 Alderney Drive,
Dartmouth, Nova Scotia, Canada, B2Y 2N6
Phone: (902) 426-4196
Fax: (902) 426-4457

E-Mail: Geoff.Howell@ec.gc.ca

Web Site
http://www.stmarys.ca/administration/gorsebrook/ashkui.htm

3. **Deline, NWT (Fort Franklin) Health & Contaminated Mining Lands**

Brief Synopsis of Project:

– Concerns about exposure to radium and metals in Port Radium mine have led researchers to develop a Participatory Action Research Project around the health consequences of residents who continue living near the contaminated mining site-lands. Involving Dr. Joan Ryan (Professor Emeritus, Anthropology, University of Calgary) and Dr. Cindy Jardine, Environmental Health Science Program – Faculty of Medicine Public Health Sciences, of the University of Alberta, the project aims to re-empower members of the community through providing them with better access to information re: current exposure and risk, their own health status. It also provides them with the time they need to understand the critical dimensions of their health and lifestyle decisions they will likely want to make once they are fully apprised of the risks involved in staying in the community. The program is training local field workers to conduct health-based research and to assess what community needs for information are at this time. These health researchers play the role of community ambassadors who are better able to explain the issues to community elders. Using more effective tools of communications (person-to-person conversation in their native language, posters located in busy areas of town, community radio, local tv) than those used by outsiders (generally a meeting and information pamphlets), they informally engage in dialogue with the residents. Through informal involvement, using non-technical language, and without structuring in advance how to do things, they learn valuable information about what residents consider to be priorities, so that these can be acted upon.

Background to the Project:
Excerpted from: http://www.hartford-hwp.com/archives/44/048.html

A dark chapter in Canadian history

CBC Television News: The National
18 March 1998

Guest: ERIC SORENSEN, CBC Reporter
GINA BAYHA, Granddaughter Of Miner
UNIDENTIFIED Deline Band Council Member
JANE STEWART, Minister Of Indian And Northern Affairs
ROBERT BOTHWELL, Historian

PETER MANSBRIDGE: Some new light tonight on a dark chapter in Canadian history. It goes back to the 1930s, whennative people were recruited to work in a uranium mine. They were never told of the health hazards they faced, even though the government knew. Most of the workers came from the Dene village of Deline, just south of the Arctic Circle on the shores of Great Bear Lake. And that's where the CBCs Eric Sorensen reports from tonight.

ERIC SORENSEN: An abandoned head frame is about all that's visible of the toxic uranium once mined here to produce the world's first atom bombs. Three-hundred kilometres away, Deline -- formerly Fort Franklin -- is where young aboriginal men were recruited to do some of the dirtiest work at the mine. Paul Baton, now 83, used to lift sacks of uranium ore onto boats.

SORENSEN: No protectic. ?

SORENSEN: "We usually dressed like this" he says, "it's like flour. It just starts covering what you're wearing."

(Archival Film Clip): They mine the pitchblende ore that yields both uranium and radium.

SORENSEN: The Eldorado mine was opened and run by Ottawa in the 1930s. It supplied the raw materials used to make the atomic bombs that fell on Japan a decade later. About 20 years after that, says Baton, people began dying prematurely of cancer.

UNIDENTIFIED: They're all gone.

SORENSEN: Gina Bayha's grandfather worked at the mine and died of cancer.

GINA BAYHA / GRANDDAUGHTER OF MINER: They trusted, in good faith, that there's nothing to worry about.

SORENSEN: People here in Deline say what's most frustrating is that after so many years and so much illness, they stilldon't think they're getting straight answers from the Canadian government about the hazards people faced working in and around the mine. Documents obtained by CBC suggest Ottawa knew as early as 1932 that precautions should be taken in handling radioactive materials. The Department Of Mines Annual Report states: "the ingestion of small amounts of radioactive dust or emanation over a long period...eventually may have serious consequences... (including) lung cancer, bone necrosis and rapid anemia." That vital health information wasn't shared with uranium workers, has shaken members of the Deline Band Council.

UNIDENTIFIED DELINE BAND COUNCIL MEMBER: We felt that Canadian government is hiding something from us.

SORENSEN: The federal minister responsible for northern affairs says it's all new information to her.

JANE STEWART / MINISTER OF INDIAN AND NORTHERN AFFAIRS: It would will be appropriate for the federal government to take a look at this information and determine what in fact was available and the approaches that have been taken and need to be taken.

SORENSEN: This historian says at the time, governments had other priorities than the health of a few natives in northern Canada.

ROBERT BOTHWELL / HISTORIAN: I would explain the federal governments failure by their concentration on anti-communism and defence. That's, you know, it's a hazard, but the Russians are a worse hazard.

SORENSEN: The Deline Band Council says the entire community will be consulted on what to do next -- though Paul Baton says it's about time Ottawa did something to address a health problem it knew about such a long time ago. Eric Sorensen, CBC News, Deline, N.W.T.

For further background information, see http://www.ccnr.org/deline_deaths.html

Common components of 3 "Best Practice" projects:

- Longitudinal time frame over several years.

- Establishment of trust relations – an objective of projects; a recognition of the value of collaborative work – equitable partnerships in practice as well as in theory. Trusted initiator, already known to people of communities involved in project.

- Use of Participatory Action Research (PAR) approach – a commitment to equitable and transparent decision-making processes – over long periods of time.

- Sharing and teaching of traditional and scientific knowledges.

- Projects' activities, consultations and communications take place in home territories of aboriginal communitities.

- Each set of projects takes place alongside and within larger contexts of ecological, political, health objectives; not just pure science work.

- Each project has permission of community in which it is taking place and each researcher is licensed to work in the community by the local licensing authority (Nunavut Research Institute, Aurora Research Institute, Yukon College).

- Each project has communications/ information sharing practices built into its initial set of objectives for which distinct funding has been allocated.

- Each project involves training or passing on research skills to the members of the community involved in the process.

Interviews Undertaken:

- Diane Reid, Cree Elder. July 2, 2002.
- George Oblin, Communications and education consultant to the James Bay Cree. July 16, 2002.
- Sol Awashish, Cree Health Board, Communications Co-ordinator. July 2, 2002.
- Tom Axtell, Native Communications Consultant (TV, Video, and web resources). July 6, 2002.
- Ginette Lajoie, Cree Regional Authority (CRA), Co-director of New initiative - development of a strategy for improving environmental knowledge (CRA, Makivik, Innu group). July 15, 2002.
- Carol Levesque – Institut national de la recherche scientifique, UQAM.. July 15, 2002.
- Alfred Loon, CRA. July 15, 2002.
- Peter Johnson, Chair, Canadian Polar Commission. July 17, 2002.
- Allan Penn, Science Advisor, Cree Regional Authority. August 9, 2002.
- Russell Shearer Environmental Physical Scientist, Environment and Renewable Resources Directorate. Northern Science and Contaminants Research Directorate. July 17, 2002.
- Bill Kemp, Environment Consultant. Strate 360. August 13, 2002.
- David Hocking, Director of Communications
  David Suzuki Foundation. August 6, 2002.
- Dr. Cindy Jardine, Environmental Health Science Program – Faculty of Medicine Public Health Sciences, University of Alberta. August 7, 2002.
- Joan Bosworth, Executive Director
  Canadian Foundation for AIDS Research (CANFAR). August 8, 2002.
- Chris M. Furgal, Environmental Health Research Associate
  Risk Assessment, Management, and Communication
  Unité de recherche en santé publique
  CHUQ – Pavillon CHUL – Université Laval, August 9, 2002.
- Eric Loring, Inuit Tapiirit of Kanatami. August 12, 2002.

Selected Bibliography (Partial):

Cancian, F.M., and Armstead, C. 1992. Participatory research. In E.F. Borgatta and M. Borgatta (Eds.), *Encyclopedia of sociology* (Vol. 3). New York: Macmillan.

Fals-Borda, O., and Rahman, M.A. (Eds.). 1991 *Action and knowledge: Breaking the monopoly with participatory action research.* New York: Intermediate Technology/Apex.

Fernandes, W., and Tandon, R (Eds.). 1981. *Participatory research and evaluation: Experiments in research as a process of liberation.* New Delhi: Indian Social Institute.

Hall, B. 1993. Participatory Research. In *International encyclopedia of education.* London: Pergamon.

Hall, B., Gillette, A., and Tandon, R (Eds.). 1982. *Creating knowledge: A monopoly? Participatory research in development.* New Delhi: Society for Participatory Research in Asia.

Katz, E. & Lazarsfeld, P. 1955. Personal Influence. New York: Free Press.

Lampe, J., Murphy, F., Furgal, C., and Craig, L. 2000. Country Food, nutrition and health: Developing effective communicatioin strategies in Labrador (Year 2). In Kalhok, S. (Ed.) *Synopsis of Research Conducted under the 1999-2000 Northern Contaminants Program.* Department of Indian Affairs and Northern Development, Ottawa, pp. 271-280.

Lussier, C., Lévesque, C. and Lajoie, G. *Northern Ecosystem Initiative: A Preliminary Community Perspective on Environmental Priorities: Whapmagoostui and Chisasibi.* Université de Québec – Institut National de la Recherche Scientifique, Cree Regional Authority and with the Collaboration of Chisasibi First Nation and Whapmagoostui First Nation, 2000.

Lussier, C., Lévesque, C. and Lajoie, G. *Community Empowerment in Action: Elaboration and Experimentation of a Strategy to Promote and Facilitate Access to Environmental Knowledge.* Université de Québec – Institut National de la Recherche Scientifique, Cree Regional Authority and with the Collaboration of Chisasibi First Nation and Whapmagoostui First Nation, 2000.

Tandon, R. 1989. Participatory research and social transformation. *Convergence,* 21 (2/3), 5-15.