



DIALOGUE ON NORTHERN RESEARCH: SUMMARY REPORT

Prepared by

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Institute On Governance**

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Institute On Governance

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EXECUTIVE SUMMARY

Introduction

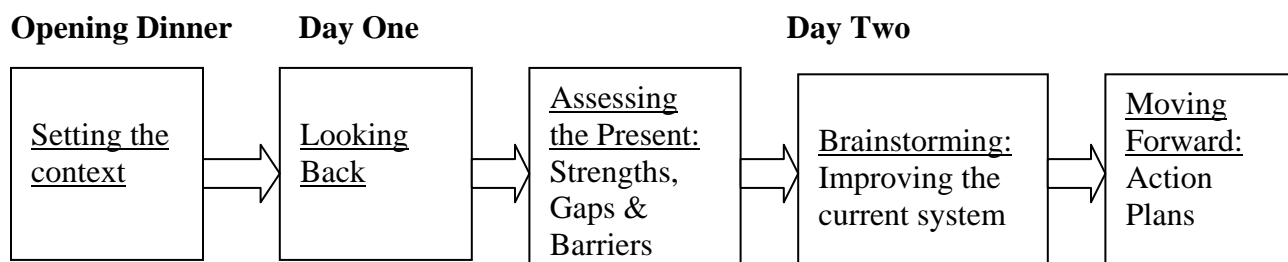
The Dialogue on Northern Research took place in Whitehorse, Yukon on March 25-27 and was sponsored by six federal government departments and agencies: Social Sciences and Humanities Research Council (SSHRC), Science and Engineering Research Canada (also known by its legal name, Natural Sciences and Engineering Research Council as well as the acronym NSERC), Canadian Institutes of Health Research (CIHR), Fisheries and Oceans Canada (DFO), Indian and Northern Affairs Canada (INAC) and Health Canada (HC).

The Dialogue had three objectives:

- Facilitating the networking opportunities for stakeholders interested in northern research;
- Providing an opportunity for stakeholders to identify strengths, gaps and barriers in Northern research and ideas for addressing those gaps and barriers; and
- Identifying actions to improve Northern research and collaboration between natural sciences, social sciences and health sciences researchers, research users and research funders.

To meet these objectives, the planning committee, which consisted of some 27 individuals representing a wide variety of organizations with an interest in northern research, with the assistance of the Institute On Governance, designed the Dialogue as depicted below.

Dialogue on Northern Research Principal Elements of the Agenda



Over a hundred people participated in the Dialogue with Yukon College acting as the formal host. Elder Stanley James of the Carcross/Tagish First Nation provided opening and closing prayers over the two-and-a-half day period.

Adding to the intellectual stimulation of the event were some dozen speakers, who spoke on various aspects of northern research:

- Sally Webber, President, Yukon College
- Ed Schultz, Grand Chief, Council of Yukon First Nations
- Isabelle Blain, Vice President, NSERC
- Daryl Rock, Director, SSHRC
- Dr. Jeff Reading, Scientific Director, Institute Of Aboriginal Peoples' Health, CIHR
- John Cheechoo, Environmental Policy Advisor, Inuit Tapiriit Kanatami

- Dr. Jill Watkins, Environmental Scientist, INAC
- Dr. Jim McDonald, Vice President, Association of Canadian Universities for Northern Studies
- Dr. Peter Harrison, Senior Research Fellow-Oceans, National Research Council
- Dr. Martin Fortier, Executive Director, ArcticNet
- Larry Bagnell, MP, Yukon
- Dr. Peter Johnson, Chairperson, Canadian Polar Commission

Results of the Dialogue

The following is a list of proposals developed by participants to improve northern research. They are grouped under five headings:

Policy

- Develop an integrated northern research policy using a Steering Committee in the North and with indigenous groups on the Committee providing input into proposals and implementation (link this policy development to International Polar Year).
- Broaden and continue the Dialogue to develop the northern research strategy with adequate funding to existing research institutes.
- Encourage the territorial governments to develop research plans.

Building Research Capacity & Involvement

- Develop a northern research inventory or Web site directory of current researchers, groups, contacts, capacities within universities, government and northern organizations.
- Ensure sustainable research funding at the community level.
- Develop a harmonized licensing or permitting process for researchers in the territories.
- Establish undergraduate exchanges between colleges and universities.
- Access and record Elder knowledge (TK) with due urgency.
- Place innovators in the schools as field experts with stable funding to create a year round connection to students and researchers.
- Invest in the next generation as soon as possible.
- Help develop resident capacity and northern involvement in all stages of research in local, national and international issues.
- Encourage the research community at large to recognize the needs and values of northern Aboriginal cultures and TK.
- Build one or more places for high-calibre northern research activities which would include storage of data bases, library, meeting facilities, networking etc.
- Develop “NCE-lite” – a network that is smaller, “lighter,” and more manageable than a regular NCE (Network of Centres of Excellence) to help link existing facilities, expertise and funding.



Funding Priorities and Decision-making

- Establish a peer-reviewed, tri-council strategic funding envelope for new emerging teams in multidisciplinary northern research.
- Infuse \$1-2 million to foster high quality research in the North.
- Develop a tri-council strategic program for the North with stated principles.
- Have agencies that fund research emphasize territorial-based research and the importance of reporting back to the community, capturing its interest and exchanging ideas.
- Establish a community relevancy review and community input processes for ethics.
- Review research proposal criteria and set evaluation criteria to ensure sensitivity to northern needs and to encourage the integration of TK with other scientific findings.
- Encourage the inclusion of northern Aboriginal organizations in the review processes.
- Build a constituency for northern research through meaningful messages to all Canadians, co-ordinated by the tri-council and researchers.
- Develop pilot projects and dedicated funding for research conducted by northerners with a northern decision-making board.
- Encourage cross-cutting planning across the three Councils.
- Establish seed funding to consult with communities very early in the project formulation stage.
- Recognize community in-kind contributions in making funding decisions.
- Build on successful governance models and best practices.

Next Steps in the Dialogue

- Transmit messages from this Dialogue back to northern leadership, including the Aboriginal community, in the form of a progress report authored by the tri-council.
- Have the tri-council report on use of the information generated from the Dialogue. In particular, describe any resulting actions and express a long-term vision.
- Extend the Dialogue to other parts of the North.
- Organize regular Dialogues on Northern Research to ensure accountability, process review and useful building on previous ideas (every 2-4 years).

Other

- Establish a new Canadian Ministry of Circumpolar Affairs.

Concluding Comments

In their concluding comments, the representatives from the three granting councils (NSERC, SSHRC and CIHR) thanked participants for their enthusiasm and hard work and summarized the principal messages that they had heard from the dialogue. They noted that the event had helped improve collaboration among their agencies and that this would continue. In particular, participants could look forward to specific announcements on future collaborative initiatives. Further, they committed to continuing the dialogue and developing a mechanism for doing so. Finally, they indicated that a plan was being developed for supporting the International Polar Year.

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DIALOGUE ON NORTHERN RESEARCH: SUMMARY REPORT

INTRODUCTION

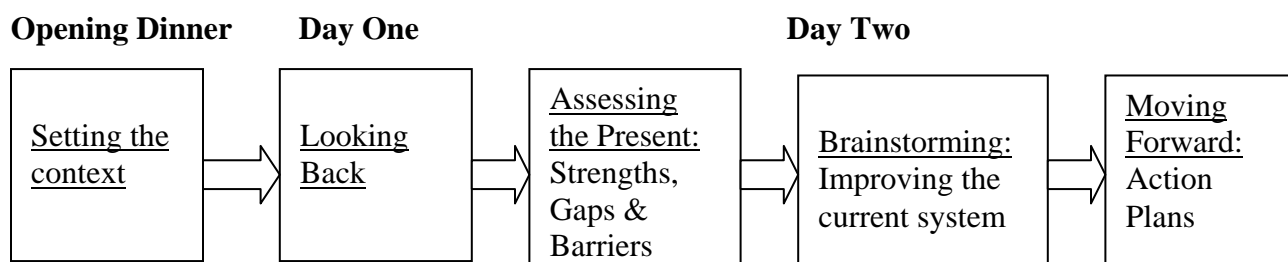
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To meet these objectives, the planning committee, which consisted of some 27 individuals representing a wide variety of organizations with an interest in northern research (see Appendix A for a list of committee members), with the assistance of the Institute On Governance, designed the Dialogue as depicted below.

Dialogue on Northern Research Principal Elements of the Agenda



Over a hundred people participated in the Dialogue (see Appendix B for a list of participants). Mikhela Jason provided the logistical support for the event. John Graham and Bruno Bonneville from the Institute On Governance acted as facilitators and Yukon College was the formal host.

Adding to the intellectual stimulation of the event were some dozen speakers, who spoke on various aspects of northern research. Their important contributions are also summarized in this report.

The remainder of this summary is organized chronologically, following the principal elements of the agenda.

OPENING DINNER: SETTING THE CONTEXT

Thursday, March 25

Elder Stanley James from the Carcross/Tagish First Nation said the opening prayer.

Following dinner, **Sally Webber**, President of Yukon College and host of the Dialogue event, welcomed participants to Whitehorse and thanked the members of the planning committee for their hard work in organizing this initiative.

Representatives of the three federal granting agencies – **Isabelle Blain** from NSERC, **Daryl Rock** from SSHRC and **Dr. Jeff Reading** from CIHR – then reviewed the mandates of their organizations, described some of their principal research initiatives in the North and noted some of the challenges they saw in conducting northern research. A common theme among all three speakers was the need to search for ways to increase collaboration across disciplines and between the councils in order to better serve the needs of northerners.

Among the recent initiatives undertaken by the granting councils of direct relevance to northern research are the following:

- The development by NSERC of six northern research chairs, supplements of scholarships for students, research internships to build northern research capacity and grant supplements to deal with logistical costs;
- SSHRC establishing Aboriginal Peoples as one of its four research priorities and, after extensive dialogue, the launch of dedicated research programs in northern Research and Aboriginal Peoples Research; and
- The creation through CIHR of the Institute of Aboriginal People's Health, the only nationally funded research organization in the world to deal exclusively with the health issues of indigenous peoples and the launch of Rural and Northern Health Initiatives.
- Support for a Network of Centres of Excellence focused on the North (ArcticNet).

Sally Webber then introduced **Ed Schultz**, Grand Chief of the Council of Yukon First Nations. He began by setting the context for research within the culture of the North. Among other things he noted that First Nations peoples now have a better understanding of what researchers do and what benefits they as First Nations can derive from research. He also complemented researchers on their growing sensitivity to the needs and perspectives of First Nations. From his vantage point, this aspect of northern research has improved significantly.

He then proceeded to outline a major concern among his people – the growing and harmful effects of climate change. He emphasized the multiple impacts on the health, social and physical environment of the North, including:

- environmental damage from dump sites situated on melting permafrost;
- increased run-off into streams, lakes and rivers;
- habitat changes – e.g. the growing lack of certain berries and root plants; and
- potential changes in the migration patterns of caribou.

While the North has known dramatic climate changes in the past, what makes the current situation so worrisome is the speed at which this is now occurring.

He concluded by encouraging all involved in northern research to continue attempts to move across “silos” in a way that might be instructive to governments across Canada.

Sally Webber concluded the evening by giving the keynote address, which focused on two ideas to be addressed by this Dialogue event: research by northerners and enhanced research with the North. Her objective was to provide some provocative ideas for participants to discuss over the next two days.

She introduced the concept of an “ecotone,” a place of transition between two distinct ecosystems such as between a forest and tundra or a shoreline. “Ecotones” are on the “edge,” a place for potential competition and are rich in diversity. This concept serves as a useful metaphor for better understanding northern research: that is, there is a need to understand both systems (the North and the South) so the “edge” where they meet can be better managed.

The resident northern research “system” has a number of important characteristics:

- Most research is conducted alone, without collegial support.
- Most research is conducted or sponsored by governments (there is an absence of hospitals, universities and commercial organizers as others sources of research).
- Northern researchers deal with pressing issues of concern to northerners (e.g. sustainable development, Aboriginal governance initiatives, the fragile environment, etc.); this encourages a pragmatic approach that is community driven.
- The North is a welcoming environment for innovation (new knowledge can have a profound effect in a short time period).

The “southern” system differs in many of these characteristics. For example, its principal audience tends to be scientific peers and has more international orientation.

Ms. Webber then presented six ideas for participants to ponder during the upcoming sessions:

- 1) Invest in northern research infrastructure, e.g. build on the modest infrastructure that exists now in the three northern colleges.
- 2) Emphasize improving the “basics”. Researchers need places to think, basic equipment and elementary “on the ground support”.
- 3) Involve northern communities in your research, engaging existing northern networks
- 4) Ensure that research results are disseminated in a language that people can understand and in a manner that is easily accessible, e.g. Web sites, conferences.
- 5) Develop a focused research agenda for the North, one that eliminates the silos of the three granting agencies.
- 6) Place more emphasis in including the perspectives, values, cultures and worldviews of Aboriginal peoples in northern research.

She concluded her remarks by wishing participants success in their deliberations.

Elder Stanley James then closed the evening with a prayer.

DAY ONE: FRIDAY MARCH 26

Elder Stanley James from the Carcross/Tagish First Nation said the opening prayer.

The Day One agenda featured four principal sessions:

- Looking Back: Key Events in Northern Research
- Panel Discussion: Progress and Trends
- The Present: What Should We Retain and Build on?
- The Present: Key Challenges – Gaps and Barriers in Northern Research

In addition, Dr. Peter Harrison, Senior Research Fellow-Oceans, National Research Council, was the luncheon speaker. Dr. Martin Fortier, Executive Director, ArcticNet was the keynote speaker at dinner.

Summaries of the four sessions and the two speakers follow.

A. Looking Back: Key Events in Northern Research

The facilitators asked participants seated in round tables of eight to identify some of the positive and negative events that have had a significant impact on northern research. Participants came up with the following:

Decade	Positive	Negative
1880 and before	<ul style="list-style-type: none"> ▪ International Polar Year ▪ Neutral-Indigenous Knowledge ▪ Geological Survey of Canada 1842 ▪ HBC (Hudson Bay Company) Archives ▪ Technology expansion (photogrammetry) ▪ Franz Boas (anthropological research in the north) ▪ Yukon Ice man (Kwanlin Dun) ▪ Lowe exhibition ▪ Traditional diet ▪ Prime Minister Laurier and Captain Bernier (sovereignty issues) ▪ Search for Northwest Passage ▪ Traditional medicines ▪ European contact ▪ Gold Rush 	<ul style="list-style-type: none"> ▪ Inuktitut- use or lack ▪ Effort to do away with Aboriginal languages and culture - a loss. ▪ Gold Rush ▪ Mining contamination ▪ Residential schools
1900		<ul style="list-style-type: none"> ▪ Cutbacks to monitoring (ND)
1910	<ul style="list-style-type: none"> ▪ 5th Thule Exhibition 	

1920	<ul style="list-style-type: none"> ▪ Yukon/Alaska Boundary Commission ▪ Northern Oil and Gas Act 	<ul style="list-style-type: none"> ▪ Northern Oil and Gas Act
1930	<ul style="list-style-type: none"> ▪ International Polar Year II ▪ Air Travel ▪ Discovery of gold near Yellowknife 	<ul style="list-style-type: none"> ▪ Air travel ▪ Discovery of gold near Yellowknife
1940	<ul style="list-style-type: none"> ▪ Alaska Highway ▪ Canol pipeline ▪ Voyages of the St. Roch 	<ul style="list-style-type: none"> ▪ Alaska Highway ▪ Banfield Barren Field Caribou Survey 1949 ▪ Canol pipeline ▪ Eastern Arctic Patrol (CD Howe) ▪ Relocation of Inuit to Grise Fiord/Resolute ▪ World War II
1950	<ul style="list-style-type: none"> ▪ 1958 Polar Continental Shelf Project ▪ Defense Research Board 1958 ▪ Anik satellite launch ▪ SS Nautilus (submarine) ▪ International Geophysical Year ▪ Aurora Station ▪ Militarization of DEW line ▪ CD Howe Arctic Control ▪ NWT Science Act 	<ul style="list-style-type: none"> ▪ Militarization DEW line ▪ Lack of archiving ▪ Forced relocation of Inuit
1960	<ul style="list-style-type: none"> ▪ NCRC (Northern Contaminants Research Centre) ▪ 1962- NSTP (National Scientific Training Program) ▪ 1969 Manhattan (ship in the Northwest Passage) ▪ Decolonization ▪ Oil discovery at Prudhoe Bay, AK ▪ White Paper ▪ Peace Athabaska Delta Study 	<ul style="list-style-type: none"> ▪ Oil discovery at Prudhoe Bay, AK ▪ White Paper ▪ Pollution from mining
1970	<ul style="list-style-type: none"> ▪ Royal Commission on the Status of Women ▪ Berger Report 1977 ▪ Man in the Biosphere Program 1977 ▪ James Bay agreement (JBNQA) ▪ 1974 Dene Declaration ▪ 1975 Science Dialogue ▪ Inuit Circumpolar Conference and Inuit Tapiriit Kanatami ▪ 1975 Inuit land use and occupancy study 	<ul style="list-style-type: none"> ▪ Berger Report ▪ Animal rights movement ▪ Fur ban ▪ James Bay agreement (JBNQA) ▪ 1975 Science Dialogue ▪ Northern Oil and Gas Act

	<ul style="list-style-type: none"> ▪ Formation of ACUNS (Association of Canadian Universities for Northern Studies) ▪ International Biological Project ▪ Foreign ambassador tour ▪ Northern Oil and Gas Act ▪ Umbrella agreement ▪ Decolonization 	
1980	<ul style="list-style-type: none"> ▪ 1986 Inuvialuit final agreement ▪ Creation of the three colleges and research institutes ▪ Northern Contaminants Program 1982- Arctic Council ▪ Broughton Island (Qikitarjuaq) Event (1985) ▪ Section 35 Constitution ▪ 1983 ACUNS scholarship started ▪ Canadian Society for Circumpolar Health ▪ ACUNS Ethics Principles for the conduct of research in the North ▪ Co-management review boards (Inuvialuit, Nunavik, Nunavut) ▪ Umbrella final agreement 	<ul style="list-style-type: none"> ▪ Broughton Island (Qikitarjuaq) Event (1985)
1990	<ul style="list-style-type: none"> ▪ TEK recognized value and diet ▪ Diamond Rush ▪ RCAP (Royal Commission on Aboriginal Peoples) ▪ Internet ▪ KYOTO Accord ▪ 1993 Arctic Borderlands Ecological Knowledge Co-operative ▪ ACUNS ethical principals for northern research ▪ Climate Change research ▪ Recognition of benefits of traditional food 	<ul style="list-style-type: none"> ▪ 1998- climate change ▪ Diamond Rush ▪ Contaminants ▪ Federal program review - funding cuts for monitoring stations ▪ End of Soviet research
2000	<ul style="list-style-type: none"> ▪ University of the Arctic ▪ Cancellation of Placer Yukon Mining Act (licensing changes) ▪ NSERC/SSHRC Task Force on Northern Research Report ▪ CIHR- IAPH (Institute for Aboriginal Peoples Health) ▪ CFI- icebreaker ▪ ArcticNet ▪ SHEBA- Surface Heat Budget of the Arctic 	<ul style="list-style-type: none"> ▪ Devolution

	<ul style="list-style-type: none"> ▪ Governor General tour ▪ Reconciliation for residential schools ▪ “Iceman” 	
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The facilitators concluded this session by pointing out a significant trend, certainly since the 1980s, that positive events have become more prominent and numerous than negative ones.

B. Panel Discussion: Progress and Trends

Three panel members gave opening remarks on the progress and trends of northern research and then answered questions.

John Cheechoo, *Environmental Policy Advisor, Environment Department, Inuit Tapiriit Kanatami*

Inuit Tapiriit Kanatami (ITK) is a non-profit organization dedicated to the needs and aspirations of Inuit and was formed in 1971 by Inuit to act as their national voice. It represents close to 50,000 Inuit/Inuvialuit living in 53 communities in Canada’s North. ITK was a catalyst for Inuit land claims, the establishment of the Inuit Broadcasting Corporation, and inclusion of Inuit into Canada’s Constitution. Since then, ITK has broadened its aims and objectives in response to the changing social, economic, environmental and political challenges facing Inuit.

Following this overview of the ITK, Mr. Cheechoo asked this very broad and simple question: “What is the purpose of research and who is it for?”

ITK has been involved in research activities and has utilized research information as a supportive tool to do its work on behalf of Inuit, whether it concerns environmental, wildlife species, nutritional, health, social, cultural, demographic, economic or legal-constitutional issues. To cite one example, ITK and Inuit regional organizations partnered with Laval University and Statistics Canada and jointly developed and undertook the Inuit communities’ portion of the 2001 Aboriginal Peoples Survey. On another level, ITK, with Inuit land Claim Organizations and academic research partners have been holding climate change workshops in northern communities since 1999. Inuit have reported extraordinary changes in the environment as a result of climate change, such as melting permafrost resulting in damaged homes; longer ice-free seasons; changes in the migration patterns of birds and caribou; new species of birds, fish, and insects; and a general warming trend.

This project has helped obtain valuable information from a previously unknown and valuable perspective – that of the Inuit. The research has helped to answer larger scientific questions. But this small project has helped in another way - it has helped build capacity at the regional and community levels. Further, the research has helped national and regional Inuit organizations gain credibility in the eyes of academia and governments, leading to improved Inuit involvement in climate change research. Clearly research in the North has many benefits and purposes.

ITK certainly envisions research to be useful for many things that can and do benefit Inuit, including benefits in the areas of policy development; capacity development; education and training for youth; community development; strengthening community awareness and knowledge of science; resource/wildlife protection and management; better overall awareness of Inuit issues (on a national and global scale); and cultural protection and enhancement. Inuit support scientific research. Communities see a need for it. However, Inuit want it done in a way that appropriately involves them, their particular perspectives and their needs for research. Inuit see a need to be meaningfully and legitimately involved in the entire research process from the initial stages that define research priorities and the development of initiatives right through to the stages of communicating results. There is a need for longer-term projects, for using Inuktitut, and for capacity building.

Research is about people and for people; research is about policy, capacity and environment; it is about partnership, learning and adapting; and about respecting and helping one another. It is about the future of life in Canada's North.

Mr. Cheechoo concluded his remarks by repeating his opening question, "What is the purpose of research and who is it for?" He left participants to consider this in a northern context and answer it for themselves.

Dr. Jill Watkins, Environmental Scientist, Northern Science and Contaminants Research Directorate, Indian and Northern Affairs

The Assistant Deputy Ministers (ADM) Committee on Northern Science and Technology, currently co-chaired by the Department of Fisheries and Oceans (DFO) and Indian and Northern Affairs Canada (INAC), is pursuing a focused and practical agenda to promote better use of opportunities for cooperation both within and outside of the federal government.

The 2003-2005 period will focus on three main activities. The first objective is to update the Northern Science and Technology Federal Framework and Research Plan. This document will respond to national and international needs for organized information and will help the federal government maximize the return on federal investment in science and technology. This project, which is near completion, highlights the major issues faced by the North, and describes federal programs that address them. Those programs, which are characterized by horizontal sharing of resources and collaborative activities, are highlighted as are future major opportunities for collaboration, such as ArcticNet. The second objective, establishing a forum to bring together researchers with various areas of expertise in the North, is being met by the current Dialogue on Northern Research. The third objective is to determine the options for a coordinated approach to federal involvement in the International Polar Year (IPY) 2007/2008. The goals are to weigh options for planning, coordination and funding by the federal government.

Lastly, INAC is committed to establishing a more strategic approach to northern science and technology to identify gaps and priorities, and has proposed funding a dedicated secretariat

committed to co-ordinating federal involvement in IPY. Such a secretariat would need support from a number of departments and agencies to be successful.

Dr. Jim McDonald, Vice-President, Association of Canadian Universities for Northern Studies (ACUNS)

The Association of Canadian Universities for Northern Studies is a national level organization of 32 institutes of higher education whose purpose is to provide institutional means to bridge gaps between northern and southern researchers, teachers, and institutions.

Northern studies have changed in Canada. The promotion and encouragement of the next generation of northern scholars is crucial. The North is no longer simply a living lab for southern researchers, but should be viewed as someone's home and backyard, where ethics must be respected. New ethical standards are required, and the ACUNS ethical guidelines are useful in this regard. A more collaborative approach will help to decolonize the research process, and to define northern relevant research such as climate, health, needs of northerners, social policy issues, pollution, and non-renewable resource exploitation. Currently, federal government departments need to improve their capacity to integrate research. It must also respect and respond to the needs of northerners by strengthening and expanding national and local structures for northern research, and by supporting culturally safe research strategies.

In recent years, Canada's North has become part of the emerging concept of the circumpolar world, where people of the North are no longer looking south, but east and west to other circumpolar northern communities. It is important that national and international granting agencies accept this circumpolar view, and that they establish creative thinking and ways to foster the involvement of young northern people so that they can benefit from education and the experience of northern research.

Issues, questions and points of views that arose in the question and answer period following the presentations by the three speakers included the following:

- Is a paradigm shift required in northern research so that southerners provide northerners with "tools" to do research rather than have southerners do the research for them?
- Should granting agencies place more emphasis on helping the "consumers" of research to build the critical skills necessary to make good use of the products of research?
- Communities must be involved throughout the range of research activities, from defining the research agenda to communicating the research results.
- How might linkages be improved among departments within the federal government (the horizontality issue) and between federal agencies and outside groups?
- The North has international importance (for example, the world impact of Arctic ice disappearance), with the result that all northern research, while community-relevant, may not be community-based.
- Where one lives (the political jurisdiction) should not define who is a "northerner." The North should rather be seen as a community of people who live in and love the North.
- All research is "community-based" in the sense that a community of scientists, for example, have a shared perspective and set of assumptions, often not explicitly stated.

- A shift in paradigms is needed to put more emphasis on northern students, a shift that may not yet be reflected in the application forms of the granting agencies.
- What needs to be put in place in a society going through a painful process of decolonization so that its members can participate as equals in scientific pursuits? (i.e. encouraging collaboration calls for more than an attitude – it needs empathy).

Keynote speaker: Peter Harrison, Senior Research Fellow – Oceans, National Research Council of Canada

After congratulating the organizers on this unique event involving the granting agencies, government departments, researchers and community members, Mr. Harrison elaborated on a number of challenges including the following:

- Partnerships and horizontality: It is readily apparent that no individual organization in the federal government or within a university can do serious science in isolation. The synergy of partnerships to tackle complicated societal issues is critical if we are to move ahead.
- Sustainability: Almost every discussion of problems in the public domain includes mention of “sustainability,” but defining what we mean by this term and how we can give it practical expression is no easy task.
- Communities: The notion that scientists know best is fast disappearing, but the challenge of how to involve northern communities in all aspects of research continues. We have made significant progress but have a long way to go.
- “Why and for whom?”: Asking why and for whom science is being done is also important to consider, as well as when and by whom.
- Technology: We can’t separate science from technology. For example, consider how important the airplane has been to communities and the conduct of science in the North.
- The North as a bellwether: No region of the world is more affected by outsiders than the North. Consider the importance of climate change, for example. In this sense, the North is a bellwether or a litmus test for the rest of the world.
- Commodity prices: So much of the pace and direction of northern development have been set up by the prices of base metals, oil, gas etc.
- Being holistic: So many of our current environmental problems in the North have resulted from past decisions based on narrow, economic criteria. The challenge is to be holistic and to have a long-term outlook.

Following this discussion of challenges, Mr. Harrison offered the following suggestion to the granting agencies. He noted that many speakers at this dialogue session pointed out the need to build northern capacity. Building on these remarks he wondered if a national centre of excellence could be established in the North, supported in part by southern partners. This could be a great initiative as one of Canada’s contributions to the International Polar Year and could help put the North “on the radar screen.”

He closed by noting that the more people in the south have a feel for the North, the better off the North will be in pursuing its objectives.

C. The Present: What Should We Retain and Build On?

The facilitators asked participants to discuss the following question in small groups: What aspects of northern research are positive and worth building on? After writing the groups' answers to this question on flip charts, the facilitators then asked participants, using dots, to indicate which of these aspects were the most important (the dot count for each item is in brackets). The six aspects deemed the most important by participants appear in bold.

1. **Community involvement in northern institutes (18)**
2. **Northern colleges as connection points (links south) (17)**
3. **Research partnerships – equality/capacity for northern communities (24)**
4. **Infrastructure – revival of the Polar Continental Shelf Project (PCSP) and improved access to government infrastructure (19)**
5. ACADRE (Aboriginal Capacity and Development Research Environments) – potential for community training (9)
6. Regional offices for program delivery (2)
7. Community infrastructure (e.g. Internet) (3)
8. International circumpolar trends (4)
9. Ethics and standards (2)
10. **Encourage new students in science (28)**
11. Develop mechanisms to systemize the use of traditional knowledge (9)
12. Large scale/multidisciplinary regulations evaluation (8)
13. Sharing/building models – CBR (Community Based Research); ACADRE; CURA (Community-University Research Alliances); NSTP (Northern Scientific Training Program) (4)
14. Retention of present directions of the three funding agencies (re: collaborations) (6)
15. **Community-directed research (21)**
16. Developing research themes and funding for community directed research – “sitting down for a tea” (4)
17. Logistic support for northern communities (legacy) (4)
18. Community environmental monitoring (3)
19. Mentoring youth programs (8)
20. Northern capacity (Canadian Northern Studies Trust, NSTP, Northern Supplements) (5)
21. ACUNS conference (3)
22. Tracking and licensing (1)
23. Student exchanges (international) (2)
24. Inuit student support (High School/University bridge) (8)
25. NSERC promo-science (0)
26. Individual support mechanisms (1)
27. Cross jurisdiction centre (0)
28. University of the Arctic – focus on positive and do not pathologize (3)
29. Northern dialogue IN the North (3)
30. SSHRC development program (10)
31. Technological innovation in research and training (e.g. fishing) (4)

D. The Present: Key Challenges - Gaps and Barriers in Northern Research

The facilitators asked participants in their small groups to consider the following question: What essential northern research is not being conducted and what are the principal barriers for doing effective northern research? Following their deliberations, groups came up with the following points. Again, utilizing a dot exercise, participants assessed the relative importance of each. The top 12 appear in bold.

1. **Need to communicate results back to communities in a way that is understandable (10)**
2. **Lack of a capacity inventory and a high-level gap analysis (9)**
3. **More research is required on impacts and ramifications of rapid and imminent economic development (12)**
4. **Lack of new models at the strategic and peer-review levels of granting councils specifically addressing northern community involvement (15)**
5. **Sustainability of research and researchers including socio-cultural aspects (12)**
6. Youth involvement and education (1)
7. **Address gap in community-based interdisciplinary research generated by funding process and the culture of agencies and southern universities (13)**
8. Social research and long term studies. Need more interdisciplinary research (3)
9. **Need better integration of traditional knowledge (9)**
10. Lack of cold climate technological/engineering research (1)
11. **Lack of an integrated Canadian policy on the North as a whole (12)**
12. There is no Yukon or Canadian research agenda (5)
13. Evaluation of research proposals needs more innovative criteria (3)
14. Lack of trust and credibility on both sides of funding – risk management (3)
15. Need for coordination at multiple levels and resources to support this coordination (2)
16. Need for negotiation about the purpose of research and respect of the position of those who will benefit from it (0)
17. Funding needs to be scaled to balance manageability of funds and the ability to tackle major projects (1)
18. Need to evaluate and re-engineer logistical support for northern research (1)
19. Lack of a multidisciplinary Network of Centres of Excellence (NCE) in the North and changes to funding mechanisms (5)
20. Lack of seed money for proposals for community-driven research (2)
21. **Lack of capacity of northern research by northerners due to the education system, which often fails to integrate cultural aspects (18)**
22. Failure to elucidate the purpose of the research – quality of life (6)
23. How to integrate the diversity of disciplines to achieve interdisciplinary rather than multidisciplinary studies (1)
24. Declining capacity in the south to carry out northern research (2)
25. **Lack of recognition and support of knowledge through University of the Land (16)**
26. Climate change – what’s next (8)
27. Determinants of healthy development (growing, ageing, and cultural aspects of dying) (3)
28. **Lack of continuity and long-term funding cycles (11)**
29. **Lack of research infrastructure in the North (14)**

30. Lack of knowledge mobilization/translation systems and tools (3)
31. Lack of expertise in Arctic biodiversity (0)
32. Lack of consideration of health as a collective issue (community level) rather than the individual level (8)

Elder Stanley James closed Day One with a prayer

Keynote Speaker: Dr. Martin Fortier, Executive Director, ArcticNet

Dr. Fortier began his address following dinner on Day One by setting the Arctic context. Among many changes affecting the Arctic, the most significant might be climate change. He presented evidence of this trend through a number of circumpolar temperature and ice cover maps and then put forward one model that predicted an open Arctic Sea, in summer, by 2050.

Potential impacts of Arctic climate change are many and include:

- coast and permafrost degradation;
- changes in freshwater and food supplies;
- economic opportunities e.g. more tourism; Northwest Passage;
- emerging diseases (e.g. from diet change); and
- globalization.

Having set the Arctic context, Dr. Fortier described the organizational set-up of the Networks of Centres of Excellence (NCE). Presidents from the three granting agencies and the Deputy Minister of Industry for Canada form an overall steering committee supported by a small secretariat. This steering committee has approved and funded the establishment of 21 NCEs, each with its own board of directors (each NCE is an incorporated body).

ArcticNet is one of these 21 NCEs. It now has 95 network investigators from 21 universities with a broad mandate relating to training; provision of stable research platforms; consolidating international participation (50 international researchers from 11 countries); involving northern communities and institutes, and contributing to the development and dissemination of knowledge.

ArcticNet has funding for seven years with possible renewal for a second seven-year period. The funding at its disposal is directed principally at supporting research networks as opposed to funding research. It has a Scientific Director, an Executive Director and a five-person administrative centre. The overall governance of ArcticNet is the responsibility of a board of directors, which includes representatives of ICC, ITK and regional Inuit organizations.

Dr. Fortier stressed the amount of time needed to develop a viable proposal for a new NCE – ArcticNet traces its establishment to activities that started in the late 1980s.

Four research themes provide the current focus for ArcticNet:

1. climate change in the high Arctic;
2. food, water & resources;
3. managing the largest Canadian watershed in an emerging climate (Hudson Bay); and

4. adapting policy to a changing Canadian Arctic.

In addition there are a number of “integrating” topics crossing themes, such as the opening of the Northwest Passage.

Two priorities for ArcticNet are to increase the participation of the social sciences in its work and increase the involvement of local communities. (Dr. Fortier gave several examples of the latter that occurred this past year.)

He concluded his remarks by making a number of suggestions:

- There are many changes needed to the granting councils’ format before non-university institutions can access council funds. We need to start from the base (colleges) and not aim directly for the NCEs.
- There is a new NSERC program aimed at colleges and they should attempt to access this.
- Multi-stakeholder workshops, properly designed, can be helpful in building momentum.
- Emphasize education and youth involvement.
- Develop linkages with communities.
- There is a need to engage industry.

More information on ArcticNet can be found at www.arcticnet.ulaval.ca or martin.fortier@arcticnet.ulaval.ca.

DAY TWO: SATURDAY MARCH 27

Elder Stanley James opened the day's proceedings with a prayer.

The Day Two agenda featured three principal sessions:

- Brainstorming: Tackling the Key Challenges
- Moving Forward: Priorities for Action
- Concluding Comments

In addition, there were two keynote addresses. The Honourable Larry Bagnell, MP, Yukon, began the day by addressing participants. Dr. Peter Johnson, Chairperson, Canadian Polar Commission, gave an overview of international activities following lunch.

Summaries of the three sessions and the presentations of the two speakers follow.

Remarks: The Honourable Larry Bagnell, MP, Yukon

According to Mr. Bagnell, the Dialogue on Northern Research is a great step towards enhancing opportunities for interdisciplinary research that meets the needs of northerners, and which transcends research, political, and cultural boundaries. Ideally, northern research should be carried out “in the North, for the North, and by the North.”

The collaborative efforts of all three granting agencies at this dialogue address a critical need for a more integrated approach to the support of northern research. Holding the dialogue in Whitehorse highlights the newfound commitment to involving northerners in northern research and recognizing the value of traditional knowledge. The progress made at this dialogue will help move science infrastructure, northern strategy and policy forward.

Major recent federal investment in northern research to address climate change through projects such as ArcticNet and the Canadian Arctic Shelf Exchange Study are to be commended. These investments in northern research are courageous, particularly at a time when many other issues form stronger political platforms. Hopefully, Canada's involvement in the International Polar Year will establish Canada as a world leader in northern research, while also benefiting local communities.

Mr. Bagnell has received feedback from the Yukon, Northwest Territories and Nunavut indicating that northern research will be an important part of economic development in the North. Major industrial projects, such as the construction of northern pipelines, will require extensive development of northern research infrastructure and expertise, and will generate tremendous opportunities for northern communities.

Canada has announced a five-year plan to enhance sovereignty and to re-establish our presence in the North. This includes major investments to map the polar continental shelf and to extend our 200-mile sovereignty over northern waterways for the economic and environmental

protection of our waters. In addition to increased patrols by Canadian military and the Rangers, military surveillance of Arctic airspace and waterways will be established by 2008. Later this year, Project Narwhal will see a major presence of the Canadian army, navy and air force in the Eastern Arctic. However, because the Canadian military is small, a large presence of federal departments, territorial governments, First Nation and Inuit governments, and scientists will be needed to show that the North is an important part of our nation. Investment in northern research demonstrates the value of the North to Canadians, and will contribute to our declaration of sovereignty.

When challenged by the Parliamentary Industry Committee to address the need for research in the North, for the North, and by the North, the granting councils demonstrated their sensitivity to these issues, and are looking for creative approaches to allocating research funding. This dialogue is a useful first step towards achieving these goals.

Speaking in a personal capacity, Mr. Bagnell stated that the granting councils should become truly national, by funding scientists who live and work in the North year-round. The flexibility and creativity to make Yukon College a full university may help address the need for infrastructure and capacity building, and direct research dollars to the North under the current granting system. The establishment of a separate agency to meet the needs of northern research funding is a less favourable option, since it fails to capitalize on the world-renowned expertise of Canada's current granting agencies. A better strategy may be to increase northern-allocated funding to the current granting agencies, and for the agencies to undertake creative changes to the funding process to better integrate northern researchers, residents, and communities.

Mr. Bagnell concluded his remarks by issuing the following challenge: within the next 24 months, we should have more research in the North done by people living in the North.

A. Brainstorming: Tackling the Key Challenges

The facilitators took the results of the gaps and barriers exercise from Day One and produced a list of issues that grouped like or related subjects under three broad headings: policy gaps, research gaps and research barriers. This list is presented below (in brackets are the numbers of the issues (from 1 to 32) identified in the gaps and barriers exercise of Day One – see above).

a) Policy Gaps

1. Absence of an integrated northern policy (11+15)
2. Absence of a Yukon research agenda (12)
3. More understanding of traditional knowledge
 - * University of the Land (25)
 - * Western science and traditional knowledge (9)
 - * new models of health (8)

b) Research Gaps

- 4. Community Research Issues
 - * determinants of health (27)
 - * healthy communities (32)
- 5. Climate Change (26)
 - * adaptation
 - * what's next
- 6. Northern Economy
 - * impact of mega projects (3)
 - * the alternative economy
- 7. Cold Climate Engineering (10)

c) Research Barriers

- 8. Community Involvement
 - * communicating results (1+30)
 - * involvement in council decision making (4)
 - * lack of trust and risk management (14)
 - * seed money – “have a cup of tea” (20)
 - * purpose of research (22)
- 9. Northern Institutional Infrastructure Issues
 - * logistical support (18)
 - * capacity inventory and gap analysis (2)
 - * sustainability (long term funding) (5+7+28)
 - * NCE in the North (19)
- 10. People Issues
 - * northern capacity (21)
 - * youth involvement (6)

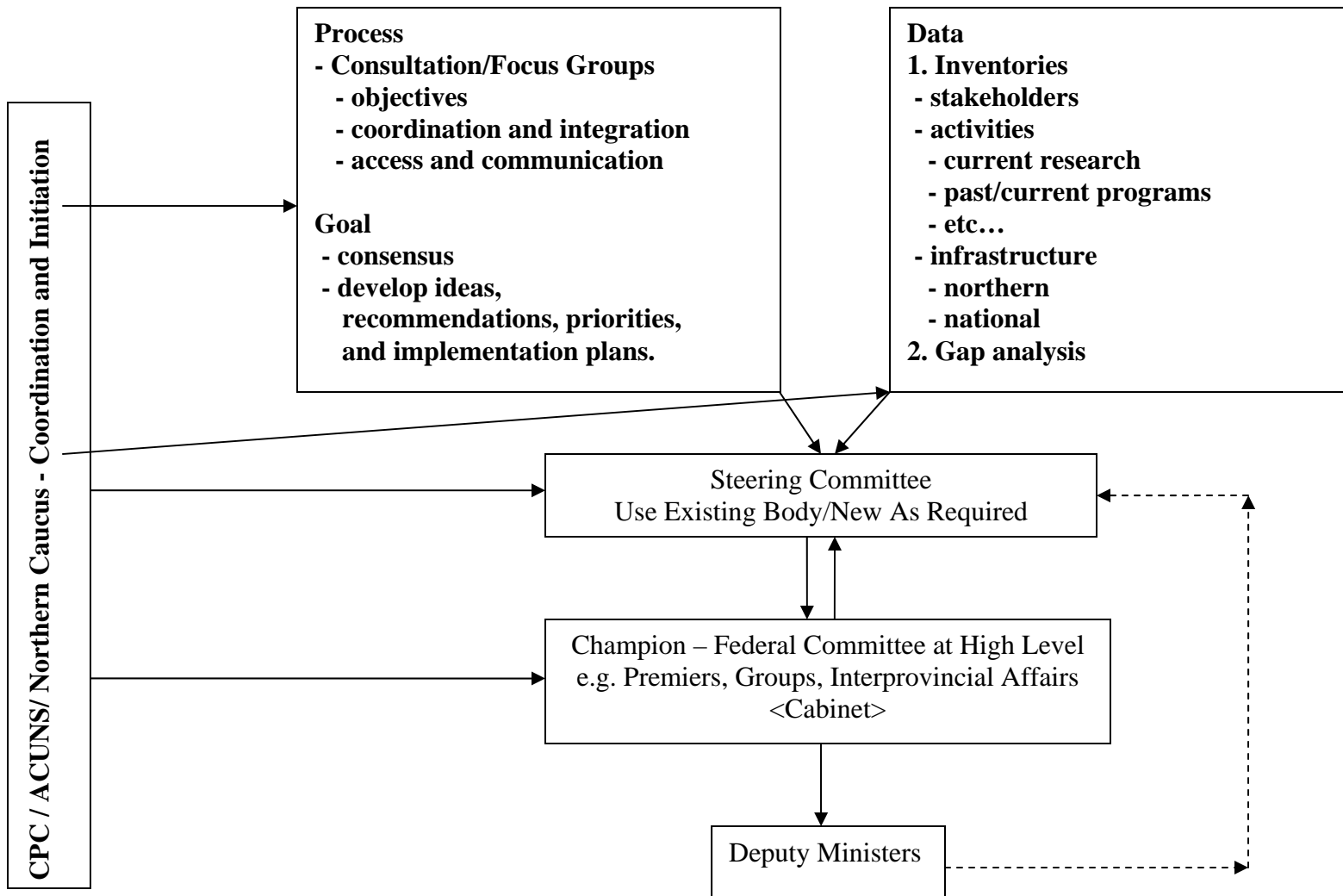
Participants went to designated tables to brainstorm on the issues that they wished to discuss. This resulted in several adjustments. First, two topics were dropped: cold climate engineering and the lack of a Yukon research agenda. Second, another topic was added: the need for more research on sustainable renewable resource use. The reports of each of the brainstorming groups appear below.

- d) **CHALLENGE: Absence of integrated northern policy**
i) **GROUP REPORTER: Amanda Graham**

Describe the Nature of the Challenge: To remedy the lack of a national integrated northern research policy

Brainstorm on ideas for meeting this challenge

1. Prepare a policy development proposal (Working group = ACUNS/CPC/Northern Caucus (NC)).
2. Secure seed funding for the development process; identify major stakeholders.
3. Secure champions; begin consensus building (see diagram – next page); identify champions from individual departments; take high level approach above departments; approach premiers & identify premiers' groups as a place to develop political will (see diagram). Establish actual data gathering project that will identify stakeholders, current research, past and present, inventory infrastructure. Utilize working or focus group meetings to turn to groups with concentrated membership to define priorities, following from the gap analysis. Parallel process augmented by input from the steering committee and organizing committee to champions with the political will to define and support processes and data collection. Encouraging movement of the process towards national IPY achievements with quick turnaround and movements with high-level adoptions. Champions to serve at intergovernmental forums consisting of leader (Aboriginal + Territorial + Federal); a good place to have political buy-in.
4. Inventories underway; Gap analysis
5. Consultation/Consensus building/Focus group's recommendations and priority development
6. Parallel activities: data collection/process definition
7. Steering committee linkages defined/created/strengthened
8. Champions linked to civil service and to tripartite, CPC, ACUNS, NC Group



CHALLENGE: Traditional Knowledge

GROUP REPORTERS: Lynn Sutherland, Shannon Cooper, Don Trudeau, Celina Kopak, Alain Cuerer, David Neufeld

Describe the Nature of the Challenge

Acknowledge, foster equality of and recognize parallel ways of knowing

Brainstorm on ideas for meeting this challenge

1. Traditional knowledge includes the natural & social sciences and the humanities.
2. Newcomers land, competing land uses, and resource regulations limited the access to the University of the Land (UL). UL needs to be recognized and the trend reversed in the spirit of agreements.
3. Close the gap between generations to strengthen the teachings.
4. Acknowledge the existence and value of the University of the Land.
5. Consult with Elders and Deans to recognize the importance of each other's learning.
6. Characteristics of learning at University of the Land
 - Experimental – be an active participant
 - Culturally entrenched knowledge
 - Four guiding principles - Respect; Care; Share; Teach
7. Individual student is the carrier of knowledge between Universities. Authority rests with individual actions.
8. Traditional Knowledge is integral to decision making (Management Boards).

CHALLENGE: Healthy Northern Communities
GROUP REPORTERS:

Describe the Nature of the Challenge

How do we focus on healthy northern communities? (focus on the positive, not the negative)

Brainstorm on ideas for meeting this challenge

1. Improve communication between funding agencies, communities and researchers. For this we need a realistic mechanism.
2. Broaden the definition of research to include community perspectives and knowledge.
3. CURA and ACADRE are possibly good models for sustainable infrastructure and capacity building.
4. Recognize the need for longitudinal health research with real results for the community. What is individual health/ a healthy community?
5. Prepare and maintain a file on financial, personnel, and program resources locally, regionally and nationally. The generation and maintenance of, and participation in, this network demands designated funding.

CHALLENGE: Climate Change
GROUP REPORTER: Aynslie Ogden

Describe the Nature of the Challenge

We need integrated approaches (e.g. natural and social sciences, local and traditional knowledge)

We must have information to understand change (e.g. monitoring on local and regional scale)

We must learn how to cope with change (e.g. adaptation, building resiliency, need to focus on solutions and options)

Brainstorm on ideas for meeting this challenge

1. Integrated strategy/policy
 - Roles of different agencies
 - Coordination (e.g. National, Circumpolar, Pan-northern)
 - Information dissemination
 - Options/scenarios – one size does not fit all

2. Support communities in adapting decision-making processes
 - Capacity building
 - Tools (e.g. decision making in face of uncertainty)
 - Community-based monitoring
 - Intermediate mechanisms to help build linkages and partnerships with scientific communities

3. Pilot projects for granting councils
 - Allocated joint funding for climate change research in the North (e.g. MBIS (Mackenzie Basin Impact Studyphase II, resiliency, IPY)

4. Federal Government Policies: New Approach
 - Current policies may inhibit adaptation
 - Maximizing current international S & T agreements
 - Horizontal file issues (continued need for coordination among departments)

5. New focus for research: Solutions and Responses

- Adaptation
- Resiliency of ecosystems and communities
- Options and scenarios (possible futures, possible solutions)
- Social science
- Social and Natural science linkages
- Participatory approaches to research
- Community directed approaches

CHALLENGE: Northern Economy

GROUP REPORTERS: Heather Myers, Nick Bernard, Richard Zieba, Chris Fletcher, Jean-Marc Lamothe, Dave Roddick, David Scott, Benoit Beauchamp, Laurie Chan

Describe the Nature of the Challenge

Developing a sustainable, diversified economy

- a) Diversification; b) Measuring; c) Choices; d) Rapid change; e) Gap between traditional management & new economic needs

Brainstorm on ideas for meeting this challenge

1. Measuring/scoping economy/opportunities/social impacts/assessment
 - incorporate value of traditional economy into economic accounting
 - out migration
 - resources – where? Capacities?
2. Work with communities to make informed choices
 - identify values
 - institutional mechanisms
 - wealth management (local, territorial, FN - individual funds and royalties)
 - gap between traditional management and new economic needs
 - alternative development models
3. Indicators of sustainability
 - what they are?
 - what is working well?
4. Identify links between community health, living conditions and rapid economic change
5. Case studies/assessments/success stories
 - evaluate vulnerabilities/resiliency
 - evaluate IBA's (Independent Business Association)/ regime
6. Crosscutting planning/ funding of research by three councils.
7. Develop international perspective

CHALLENGE: People Issues
GROUP REPORTERS:

Describe the Nature of the Challenge

Northern capacity and youth involvement

Brainstorm on ideas for meeting this challenge

1. Acknowledging identity (indigenous northern)
- healing: community – youth, and researchers
2. Culturally-based integrated community-driven capacity building. Vision = work yourself out of a job.
3. Rules of Engagement. Mobilization, relationships, role models, northern-driven (fun & laughter)
4. Modify education in innovative ways (TK/Knowledge Management)
5. Family of researcher, decision-makers, councils, communities, youth voices and engagement.
6. Northern research: Development of a long-term vision, policy principle – strategy – action plans.

CHALLENGE: Northern Institutions Infrastructure Issues

GROUP REPORTERS: Laura Arbour, Robert C. Bailey, Jean-Marie Beaulieu, Martin Bergmann, Larry Carpenter, Ray Case, Terry Dick, Jerry Heal, Jan Horton, Sarah Kalhok, David Macneil, Ginette Thomas, Danielle Trépanier, David Bowen

Describe the Nature of the Challenge

Assess and redesign northern research infrastructure to meet current and emerging realities

Definition of the challenge includes:

Physical

- Information and Communication Technology
- Transportation
- Social environments (housing, food security, etc.)

Human

- Logistics
- Logistics networks
- Training and maintenance

Organizational

- Human resource capacity to get organized – organizational capacity
- Long term, consistent, sustainable structures

Brainstorm on ideas for meeting this challenge

Meeting the challenge

- Comprehensive inventory of existing infrastructure needs and gaps
- Development of infrastructure network including territorial governments, land claim organizations, First Nations & Inuit, northern research institutes, federal agencies & departments, industry, NGOs, ACUNS, etc.
- Articulate a vision of northern research infrastructure
- Ensure partnership arrangements among government, communities, institutes, etc.
- Forecast future needs

- Involve communities in the inventory, needs assessment and future directions
- Use existing forums and structures (e.g. intergovernmental bodies, etc.)

Challenge (II) infrastructure

- Sustainable long-term resources for infrastructure

Ideas for meeting the challenge:

- % of resource royalties
- change in existing funding policies, e.g. three major funding agencies
- special tax (industry ?)
- partnerships (strategic & long-term)
- cost recovery
- international credits?

CHALLENGE: Sustainable Renewable Resource Use
GROUP REPORTERS:

Describe the Nature of the Challenge

The Conservation Over-ride when considering sustainable renewable resources use (harvest as well as non-harvest values). Note strong connections to resource economy challenge as well as to the TK challenge throughout.

Brainstorm on ideas for meeting this challenge

1. Basic Biodiversity Analysis/Surveys, including taxonomic unknowns, invasive and exotic species (note connections to IQ/TK challenges). “Northern Museum of Natural History”
2. Population ecological research on most species is unknown and needed. Community Ecological Research is in its infancy, including IQ.
3. Indicator species research and tracking research is only beginning; monitoring processes for harvested species is a challenge (there are major challenges posed by cumulative effects, which are unknown)
4. Quotas and sensitivities for most species are poorly known for many valued species. Harvesting and other methodologies used need research.
5. New research is needed into the effects of captive wildlife (game farming, fish farming, aquaculture, etc.) and effects of other agricultural processes/activities on world populations.

CHALLENGE: Community Research Issues
GROUP REPORTER: Jody Walker

Describe the Nature of the Challenge

Define community: People being researched or communities of interest you are trying to address, others?

- To communicate between generations and cultures
- Overcoming difficulties getting people into some consultative forum, develop proposals, participate in project (structural, capacity, proximity)
- Redesign of granting programs...no resources to develop ideas with communities (due, for example, to the cost of travel)

e) **Brainstorm on ideas for meeting this challenge**

1. Innovations - be creative in communicating, use of popular education techniques (theatre, film, etc...)
2. Include community representation in council decision making, including strategic, \$, peer review and results communication
3. Develop school curriculum materials, adult educators to get dialogue going
4. Emphasize the importance of developing a timeline and allowing time for people (community) to understand research
5. Involve the community at outset - research is truly for community benefit (build trust and capacity)
6. Set up an Internet site, listing research projects, researchers, resources, community people
7. Make studies available that have gone well. Showcase/profile best case study
8. Provide seed money that accepts that meaningful community consultation requires more than one meeting

Participation/Engagement

Project/research activities

Plain language culturally appropriate

Researchers don't always have communication skills

Networking a tool

Interactive and iterative process using dialogue (priorities for project set up at outset) design, implementation, reporting results

Process for connecting areas of interest/concern to communities with researchers who have similar interests

What is available now for communities in terms of information to help them inform issues and identify, and development?

Participation/Engagement (cont'd)

Shared ownership projects

PAR (Participatory Action Research) ethics in interaction community (identify issues)

Community/researcher possible co-owners/authors

Advocacy- Intermediary to bridge gap, understand science and also processes needed

Action plans (plain language)- community or regional action plans

Regional bodies to advise, steer, and co-ordinate projects and research questions

Time is an important factor with the development of partnerships/engagements and needs to be recognized and included in funding process.



International Activities and Canadian Participation: Dr. Peter G. Johnson, Chairperson, Canadian Polar Commission

Dr. Johnson, the luncheon speaker on Saturday, presented four programs and forums to illustrate Canada's role in international Arctic scholarship.

Canada is at serious risk of not being able to play a significant role in scholarship planning for the International Polar Year (IPY) 2007- 2008. The Canadian Polar Commission has taken the early initiatives for Canadian participation at the national and international levels. The major problem has been the lack of a central source of planning funds in Canada. Funding will likely be fragmented with federal contribution for federal planning and scholarship and the granting councils contribution for university and college initiatives, but obtaining funds for community participation in planning will be difficult. To date, efforts to obtain planning support have been frustrating but the University of Alberta has placed an offer on the table for support of a secretariat and it is hoped that the councils and the government will provide matching funds.

The International Arctic Science Committee (IASC) is sponsoring an International Conference on Arctic Research Planning (ICARP II) to be held in the fall of 2005 in Denmark. Themes include:

- understanding the coupling between those human and natural systems that govern the behaviour of the overall Arctic system;
- identifying the governing natural systems in the Arctic region that are essential to understanding of the overall Arctic system;
- understanding the essential social and societal systems across the Arctic regions that control the behaviour of the Arctic system;
- enhancing the capacity to meet societal interests and to enable a robust set of programs of scientific research in the Arctic region;
- Arctic science in the public interest; and
- enabling research infrastructure, resources and funding for research.

The Arctic Climate Impact Assessment (ACIA), a science review of the state of climate and adaptation research in the Arctic, is currently in its final drafting stages. ACIA II is proposed to continue the project, focusing on areas identified as not being adequately addressed in ACIA I. Research efforts will be directed to regional and economic impacts, assessing vulnerabilities, improving observations, long term monitoring, modeling and impacts on society.

The Northern Research Forum (NRF), an international dialogue between policy makers, academia, politicians and business, will take place in September 2004 in Yellowknife, NWT. The overall premise for the dialogue is "The Resilient North" and themes will include perspectives of northern leaders, governance, community economics and tourism, project day (addressing a number of issues in smaller focus groups) and a traveling northern film festival.

B. Moving Forward: Priorities for Action

The facilitators asked participants, who had returned to their original groups, to review the material produced by the brainstorming sessions in the morning and develop action steps, both long term and over the coming year. Following the Dialogue, the facilitators grouped the responses under the five themes, for both short term and longer term steps:

Policy

- Develop an integrated northern research policy using a steering committee in the North, with indigenous representation on the committee providing input into proposals and implementation (link development to IPY).
- Broaden and continue the Dialogue to develop the northern research strategy with adequate funding to existing research institutes.
- Encourage the territorial governments to develop research plans.

Building Research Capacity & Involvement

- Develop a northern research inventory or Web site directory of current researchers, groups, contacts, capacities within universities, government and northern organizations.
- Ensure sustainable research funding at the community level.
- Develop a harmonized licensing or permitting process for researchers in the territories.
- Establish undergraduate exchanges between colleges and universities.
- Access and record Elder knowledge (TK) with due urgency.
- Place innovators in the schools as field experts with stable funding to create a year-round connection to students and researchers.
- Invest in the next generation as soon as possible.
- Help develop resident capacity and northern involvement in all stages of research in local, national and international issues.
- Encourage the research community at large to recognize the needs and values of northern Aboriginal cultures and TK.
- Build one or more places for high-calibre northern research activities which would include storage of data bases, library, meeting facilities, networking etc.
- Develop “NCE-lite” – a network that is smaller, “lighter,” and more manageable than a regular NCE to help link existing facilities, expertise and funding.

Funding Priorities and Decision-making

- Establish a peer-reviewed, tri-council strategic funding envelope for new emerging teams in multidisciplinary northern research.
- Infuse \$1-2 million to encourage high quality research in the North.
- Develop a tri-council strategic program for the North with stated principles.
- Have agencies that fund research emphasize territorial-based research and the importance of reporting back to the community, capturing its interest and exchanging ideas.
- Establish a community relevancy review and community input processes for ethics.

- Review research proposal criteria and set evaluation criteria to ensure sensitivity to northern needs and to encourage the integration of TK with other scientific findings.
- Encourage the inclusion of northern Aboriginal organizations in review processes.
- Build a constituency for northern research through meaningful messages to all Canadians coordinated by the tri-council and researchers.
- Develop pilot projects and dedicated funding for research conducted by northerners with a northern decision-making board.
- Encourage cross-cutting planning across the three granting councils.
- Establish seed funding to consult with communities very early in the project formulation stage.
- Recognize community in-kind contributions in making funding decisions.
- Build on successful governance models and best practices.

Next Steps in the Dialogue

- Transmit messages from this Dialogue back to northern leadership, including the Aboriginal community in the form of a progress report authored by the tri-council.
- Have the tri-council report on use of the information generated from the Dialogue. In particular, describe any resulting actions and express a long-term vision.
- Extend the Dialogue to other parts of the North.
- Organize regular Dialogues on Northern Research to ensure accountability, process review and useful building on previous ideas (every 2-4 years).

Other

- Establish a new Canadian Ministry of Circumpolar Affairs.

C. Concluding Comments

Representatives from the three granting agencies gave their impressions of what the meeting had accomplished. **Isabelle Blain** of NSERC began by complimenting participants on their level of commitment and enthusiasm and by noting that a new “ecotone” had been created, one that will benefit from the best features of the contrasting northern and southern research “systems.”

She went over some of the principal themes that emerged over the two-and-a-half day period: the need for capacity building (institutional and people); the importance of knowledge communication (TK and scientific with communication in both directions); the need for ongoing community involvement; the usefulness of having a national strategy for northern research; and the growing need for interdisciplinary research.

She also noted how this event had helped improve collaboration amongst the three agencies. Indeed, there is a kernel of an integrated research strategy being developed.

In terms of specific outcomes from NSERC, a report of the Dialogue proceedings will go to all participants; NSERC is committed to keep the dialogue going; and there is also a plan being developed for supporting IPY.

Daryl Rock from SSHRC thanked participants for their hard work and noted that funders have few opportunities to engage at the content level. He was particularly grateful to have been out of Ottawa for a few days and to be in the North talking about northern issues.

He reviewed the three objectives of the meeting and judged that they had all been met. In particular, he committed his agency to continuing the dialogue and developing a mechanism to do so. He concluded by noting that the three SSHRC programs oriented around partnerships will not be under utilized, in part because of the outcomes of this meeting. Further, like Ms. Blain, he was excited by the idea of enhanced tri-council collaboration around fostering interdisciplinary research.

Finally Mr. Rock thanked the other sponsors of the event: Indian and Northern Affairs Canada, Health Canada and Fisheries and Oceans Canada.

Dr. Jeff Reading from CIHR thanked the staff who had been involved in organizing this event. Noting that there had been some concerns about the risk involved in putting on such an event, he expressed his delight that the Dialogue had been such a success. Further, he was confident that concrete outcomes would result and that this event had been a model for partnerships.

In terms of next steps, he echoed his two colleagues, Mr. Rock and Ms. Blain, in committing to carrying on the dialogue.

The Tri-agency Working Group thanked various people and organizations for their contributions to the Dialogue's success. Particular acknowledgements were made to the student helpers: Katherine Gofton, Melissa Guyot, David Hardie, Kelly McGill and Shannon O'Hara. Sally Webber was also recognized for being such a gracious host.

The host of the Dialogue on Northern Research, **Sally Webber**, closed the session by thanking the members of the three councils, Elder Stanley James and all of the Aboriginal participants who attended. As this dialogue draws to a "temporary pause," she thanked participants for embracing "new relationships in the ecotone."

Elder Stanley James said a closing prayer.

Appendix A: Planning Committee

Frances Abele, *Association of Canadian Universities for Northern Studies*

Andrew Applejohn, *Government of Northwest Territories*

Earle Baddaloo, *Nunavut Government*

Jean-Marie Beaulieu, *Canadian Polar Commission*

Marty Bergmann, *Department of Fisheries and Oceans*

Dave Bowen, *Science and Engineering Research Canada*

Ray Case, *Government of Northwest Territories*

Jacques Critchley, *Social Sciences and Humanities Research Council*

Ron DiLabio, *Natural Resources Canada*

Whit Fraser, *Inuit Tapiriit Kanatami*

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