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With Respect, Canada's North

Sixth Report of the
Standing Senate Committee on
Energy, the Environment and Natural Resources

The Honourable W. David Angus, *Chair*

The Honourable Grant Mitchell, *Deputy Chair*

May 2009

Ce rapport est aussi disponible en français

Des renseignements sur le comité sont donnés sur le site :

<http://www.senate-senat.ca/EENR-EERN.asp>

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Members of the Standing Senate Committee on Energy, the Environment and Natural Resources

Honourable W. David Angus – Chair

Honourable Grant Mitchell – Deputy-Chair

Honourable Willie Adams

Honourable Tommy Banks

Honourable Daniel Lang

Honourable Pana Merchant

Honourable Lorna Milne

Honourable Richard Neufeld

Honourable Robert W. Peterson

Honourable Nick G. Sibbeston

Honourable Mira Spivak

Honourable Gerry St. Germain

Ex-officio members of the committee:

The Honourable Senators Cowan (or Tardif) and LeBreton, P.C., (or Comeau).

In addition, the Honourable Senators Brown, Cochrane, Dawson, Kenny, McCoy, Meighen, Nolin and Trenholme Counsell were members of the committee or participated from time to time during this study.

Staff of the committee:

Ms. Sam Banks and Mr. Marc Leblanc, Analysts, Parliamentary Information and Research Services, Library of Parliament;

Mr. Jacques Bélanger, Acting Communications Officer, Communications Directorate;

Ms. Lynn Gordon, Clerk of the committee, Committees Directorate;

Ms. Brigitte Martineau, Administrative Assistant, Committees Directorate;

Ms. Chelsea Saville, Administrative Assistant, Committees Directorate.

Note:

This report represents the work conducted during the 39th Parliament, 2nd Session by the Standing Senate Committee on Energy, the Environment and Natural Resources. At the time, Senator Tommy Banks was the Chair and Senator Pierre Claude Nolin was the Deputy Chair. The Honourable Senators Banks, Brown, McCoy, Milne, Mitchell and Sibbeston participated in the fact finding mission to the Western Arctic from June 1 – 6, 2008.

Order of Reference—40-2

Extract from the *Journals of the Senate*, Tuesday, March 3, 2009:

The Honourable Senator Angus moved, seconded by the Honourable Senator Johnson:

That the Standing Senate Committee on Energy, the Environment and Natural Resources be authorized to examine and report on emerging issues related to its mandate:

(a) The current state and future direction of production, distribution, consumption, trade, security and sustainability of Canada's energy resources;

(b) Environmental challenges facing Canada including responses to global climate change, air pollution, biodiversity and ecological integrity;

(c) Sustainable development and management of renewable and non-renewable natural resources including but not limited to water, minerals, soils, flora and fauna; and

(d) Canada's international treaty obligations affecting energy, the environment and natural resources and their influence on Canada's economic and social development.

That the papers and evidence received and taken and work accomplished by the committee on this subject since the beginning of the Second Session of the Thirty-ninth Parliament be referred to the committee; and

That the committee submit its final report no later than June 30, 2010 and that the committee retain all powers necessary to publicize its findings until 180 days after the tabling of the final report.

The question being put on the motion, it was adopted.

Paul C. Bélisle

Clerk of the Senate

Executive Summary

The Canadian government has renewed its focus on Canada's North. The 2007 Speech from the Throne detailed a new northern strategy, "*focusing on strengthening Canada's sovereignty, protecting our environmental heritage, promoting economic and social development, and improving and devolving governance, so that northerners have greater control over their destinies.*"

The expression "We must use it or lose it" has been invoked to suggest that we must strengthen our presence in the North to assure Canadian sovereignty. Unfortunately, this statement seems to imply that Canada intends to *make use* of the North. The emphasis on sovereignty must not obscure that the destiny of northern Canada – if it is to be properly fulfilled – must be guided by northern Canadians themselves.

To understand the challenges facing Canada's North our committee, the Standing Senate Committee on Energy, the Environment and Natural Resources, travelled to the Western Arctic in June 2008. We wanted to understand firsthand what northerners were experiencing and how economic and social development can be pursued in their interest.

Canada's North is changing – and our committee saw the reality of northern environments and cultures impacted by climate change. Shorelines are eroding, the permafrost is melting and infrastructure is sustaining considerable damage. Northern communities must already face the challenge of adapting to a changing climate.

The abundant natural resources of the North continue to draw prospective investors, as they have in the past. Oil, gas and mineral resources are plentiful throughout the region. While there are significant developments already, much of the potential represented by these resources remains unfulfilled.

Our time in the Western Arctic was filled with important insights from northerners themselves. We heard about the local impacts of climate change, and the bottom up approach many communities are taking to adapt *now* to their changing environment. Research that is focused on the North will play a crucial role in meeting the coming challenges. Many were eager for greater economic development, including the major oil and gas projects being planned, but also recognized the need for environmental and cultural protection.

The most important conclusion we reached, was that Canadians must listen to all northerners about what they need and want. Beyond just *using* the North as an economic or military frontier, we must respect that this is a homeland for northerners. The federal government can and should play an important role in economic development and supporting climate change adaptation efforts – but this must be in partnership with *all* northerners and according to their vision of the future.

With Respect, Canada's North

But the North needs new attention. New opportunities are emerging across the Arctic, and new challenges from other shores. Our government will bring forward an integrated northern strategy focusing on strengthening Canada's sovereignty, protecting our environmental heritage, promoting economic and social development, and improving and devolving governance, so that northerners have greater control over their destinies.

*Speech from the Throne
October 16, 2007*

Introduction

Southern Canadians have always had a profound attachment to Canada's northern territories, whether or not they have been anywhere near them. The North is an integral part of our country's identity – part of all Canadians' romantic vision of who we are as a nation. And yet anyone who has studied Canadian history knows that those of us from the South have not always treated the North — or, more pointedly, northerners — with the respect they deserve.

It is the view of this committee that respect must be a very important part of the equation in the coming decades in the North as our country comes to grip with issues of sovereignty, resource extraction, social and economic development, cultural integrity and environmental protection.

Six members of the Standing Senate Committee on Energy, the Environment and Natural Resources visited the Western Arctic from June 1 – 6, 2008. We placed a great deal of emphasis on listening. Northerners do not speak with one voice, of course. Our role was to listen to a variety of voices reflecting some sense of vision – practical vision – as to what kinds of decisions need to be made over the next few years if Canada's north is to evolve in the best interests of all Canadians.

There are some very complex issues to be dealt with in the North over the coming years. The one certainty at the heart of all these complex issues is that they will not be resolved in the best interests of all Canadians if we do not listen carefully to northerners with good insights as to what needs to be done, or if we do not act in partnership with them in moving forward in common cause.

There is a second certainty: these issues will not be resolved in the best interests of northerners, and in fact of all Canadians, unless a much greater priority is attached to the issues, and unless we move with greater resolve to deal with them.

The current government has declared the North a priority – in the words of Prime Minister Stephen Harper, “use it or lose it”. But we have to be careful how we define “use”. Southern

Canadians should not fall into the trap of believing that the North can be “used” in the way that colonial powers once exploited the natural resources in their colonies to better the lot of the mother country. The North is not a colony of the South. The North is a homeland to more than 100,000 people, the majority of them Aboriginal. It must be developed with careful regard to the ways Aboriginal peoples want it developed. It must be developed in the interests of all northerners.

Northerners must be involved in decisions that affect their homeland. This can take time. Consensus building is a vital part of decision-making in the North. Southerners must recognize that the kinds of quick and arbitrary decisions that may make politicians appear forceful and decisive in the South can be anathema to reaching workable solutions in the North.

Our committee set out to examine the impact of two somewhat concomitant phenomena affecting Northern Canadians: climate change and industrial and commercial development. Many southerners simply assume that both these phenomena will benefit the North and its people. In ways, they may. But while climate change may open up the North to greater economic development, it may also wreak havoc with important ice roads, infrastructure embedded in permafrost, the movement of caribou herds, tides, and other components of this fragile and delicately constructed society and environment. As for economic development itself, the benefits may outweigh the losses, but there is no question that this is a two-edged sword that must be handled with great care.

In no way does this report qualify as a comprehensive blueprint. What Canada must do is make the North work for northerners and for all Canadians. Instead it is a set of reflections on what we heard on our too-brief journey; reflections that we hope may provide southern Canadians with at least some insights into an important part of our country that is facing very complex challenges. Our visit was to the Western Arctic, and did not include Nunavut, which was visited at the same time by members of the Standing Senate Committee on Fisheries and Oceans.

The recommendations contained in this report, we feel, at least constitute a starting point.

On Top of the World

This map may look upside-down to most southerners, but it is right-way-up for northerners.

Yes, that dot on the horizon is Winnipeg – about where a southern Canadian mind probably expects to find Florida. And there are the Albertans – Calgary and Edmonton – about where a southerner imagines Los Angeles and San Francisco should be.



Source: Northern Transportation Company Limited website, <http://www.ntcl.com/>

Front and centre are more than 70 tiny communities with romantic names like Pond Inlet and Taloyoak, Repulse Bay, Old Crow and Paulatuk, along with a few bigger communities like Yellowknife, Whitehorse and Iqaluit.

These communities, and the seemingly endless distances between them, constitute the North.

The Arctic and northern regions are variously called “the North”, “the Arctic”, “North of 60” and “Northern Canada. In this Report, we will use the expression “the North” to describe the three territories – Yukon, the Northwest Territories and Nunavut. This includes the “Arctic” which is

the most northerly part of the region and includes "... land and marine areas that make up the modern Inuit and claims agreements that stretch from the Beaufort Sea region to Labrador."¹

Of course "the North" is defined in many ways. Some see it as a mindset and a spirit rather than a geographical entity. The committee very much agrees that unless one understands the unique cultures and sensibilities of the North, one doesn't understand this part of the world at all. That being said, we begin this report with a very prosaic definition of the North: *geographically it is the land mass that comprises the three Canadian territories under the jurisdiction of the federal government – Yukon, the Northwest Territories and Nunavut.*

These three territories more or less define the word 'vast'. Canada's seven most easterly provinces, including massive Ontario and enormous Quebec, would fit inside these three and still leave room over. Imagine our seven easterly provinces (which most foreigners already think are sparsely populated) with just 100,000 or so people in them, rather than 24 million.

Clearly, when it comes to the North's population, sparse is the word. Of the 75 communities in the three northern territories, 55 are home to fewer than 1,000 residents. Even Yellowknife and Whitehorse – the two largest northern communities – have a maximum population of approximately 19,000 and 20,500 inhabitants respectively². The number of people per 100 square kilometres in Nunavut is 1.5; in the Northwest Territories (N.W.T.), 3.6; and in Yukon, it is 6.4. The comparable number for Canada as a whole, including the North, is 351.³

Perhaps it is because there are so few people in the North that too many southerners tend to define the North in terms of resources rather than human beings. Canada was built on the development of its vast natural resources, and many Canadians see the North as the last frontier in terms of resource development.

Top End Resources

The North's resources are rich, and their potential makes entrepreneurs dream.

Yukon is home to many significant mineral deposits. In the past gold, silver, copper, tungsten, asbestos, cadmium, lead, nickel and platinum group elements have been mined. Exploration has shown that there is huge potential for mining barite, coal, iron ore, and molybdenum, as well as additional deposits of platinum group minerals, nickel and even some gemstones (emeralds). Many of the deposits appear to be world class. The iron ore deposit in the northeastern part of Yukon is one of the largest in the world. The tungsten deposits (located just over the boundary

¹ Inuit Tapiriit Kanatami, "An Integrated Arctic Strategy", January 2008, <http://www.itk.ca/search/node/%22An%20Integrated%20Arctic%20Strategy%22> .

² Statistics Canada, 2006 Census, 2006 Community Profiles, <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E>

³ Statistics Canada, 2006 Census, <http://www12.statcan.ca/english/census06/data/popdwell/Table.cfm?T=101>, [last accessed April 6, 2009].

in the N.W.T. but only accessible through Yukon) are estimated to contain 15 percent of the world's total reserves.⁴

Diamond mines contribute about 50 percent of the Northwest Territories' GDP.⁵ Radium and uranium deposits have been mined in the vicinity of the Great Bear Lake; gold was extracted near Yellowknife; and lead, zinc and tungsten mines have also proven profitable in the past. Natural gas fields are opening throughout the N.W.T., although full exploitation awaits completion of the Mackenzie Valley gas project.

Nunavut's geology offers the promise of vast mineral wealth including gold, lead, zinc and diamonds. The Territory's first diamond mine began production in 2006 and nine other mines are expected to come into production over the next five to ten years. More than \$200 million was spent on mineral exploration in Nunavut in 2007.⁶

Distances and Climate Define Opportunities

Distances and climate have always presented formidable challenges to the people who live in the North, as well as for those who might like to invest there. The distances aren't changing. But climate is changing. Warming temperatures in the North are likely to make investment less prohibitive to outsiders. That, in turn, may make the lives of many northerners better. Or it may make them worse.

First, distances. Being so remote from markets, only the highest-grade ores or other product values justify the high costs of purchasing construction and operating materials and transporting machinery and people to and from a mine site. Transportation is a huge issue. It is very expensive to build permanent roads or railways across the rugged terrain. Indeed, Nunavut has just one highway in the entire Territory (it connects the mining community of Nanisivik to Arctic Bay, a distance of 21 kilometres). The N.W.T. and Yukon enjoy a more extensive network of all-weather roads, but even so their combined total of 7,200 kilometres is infinitesimally small compared to the complex network of roadways in the South.⁷ Think about it – Canada as a whole has more than 1.4 million kilometres of permanent roads.⁸ Of those, only one-fifth of one percent is located in these three huge northern territories.

⁴ Government of Yukon, *Discover Yukon's Mineral Wealth*, http://www.geology.gov.yk.ca/pdf/discover_yukon.pdf, [last accessed April 6, 2009].

⁵ Government of the Northwest Territories, Department of Industry, Tourism and Investment, <http://www.iti.gov.nt.ca/MediaRoom/DYK.shtml#diamondsanchor>, [last accessed April 6, 2009]

⁶ Northern Development Ministers Forum, *Focus North: Nunavut*, http://www.focusnorth.ca/ndmf_nunavut.htm, [last accessed April 6, 2009].

⁷ Alberta, for example, has over 20,000 km of paved roads and highways, yet its land mass is roughly ¼ the size of the N.W.T. and Yukon. <http://www.albertacanada.com/investlocate/1086.html>, [last accessed April 6, 2009].

⁸ *The Canadian Atlas Online*, <http://www.canadiangeographic.ca/atlas>, [last accessed April 6, 2009].

Winter roads – mainly ice roads – have traditionally provided reliable transportation routes between November and April. The most significant winter road in the N.W.T. is the Tibbett to Contwoyto road that covers 568 kilometres from Yellowknife to the Echo Bay Mine site at Lupin in Nunavut. This road, 87 percent of which is over frozen lakes, was first licensed and operated by Echo Bay Mines Ltd. from 1979 to 1998, at which time a Joint Road Venture was initiated with BHP Billiton, and Diavik Diamond Mines. The road carries construction equipment, building materials, equipment parts, power generators and essential survival goods such as food and fuel for electricity generation.⁹ If these essentials do not come in during the short winter season they must be flown in at high cost.

“For a variety of environmental reasons, the pace and reach of global warming are more pronounced in the Arctic than in other parts of the world. Arctic regions and communities face some unique problems of change and adaptation, as well as sharing in problems facing the planet as a whole.”

Source: Inuit Tapiriit Kanatami,
An Integrated Arctic Strategy,
January 2008, p.5

Evidence of Climate Change

Climate change is a very big issue in the North. It is clearly evident to northern residents that climate change is real, it is here, and that action must be taken now to address it.¹⁰ There are two ways of doing that: mitigation, and adaptation. Committee members heard a wide variety of anecdotal evidence of climate change, and heartening evidence that communities are doing their best to mitigate their contributions to the problem, even though those contributions are miniscule in comparison to the damage being done to the northern environment from carbon dioxide emissions in other parts of the world.

The People of the North

“The vision of the North as homeland originates from those who live, work and play there, whereas its conception of a frontier has southern roots. The latter is solely motivated by a desire to exploit natural resources, while the former is informed by thousands of years of indigenous use of the land and the sea. The vision of the North as frontier is myopic and simplistic.”

*Dr. Karim-Aly S. Kassam,
International Professor,
University of Calgary.
2001¹¹*

⁹ Nuna Logistics Inc., *The Winter Road*, http://www.nunalogistics.com/projects/winter_road/index.html, [last accessed April 6, 2009].

¹⁰ Jamie Bastedo, “On the Frontlines of Climate Change –What’s really happening in the Northwest Territories”, Cygnus Environmental 2007, <http://sen.parl.gc.ca/nsibbeston/Final%20for%20WEB%20or%20Email.pdf>, [last accessed April 22, 2009]

¹¹ *Passion for Identity: Canadian Studies for the 21st Century*. Scarborough; Nexlson Thomson Learning, 00 433-455.

The committee has discussed the immensity of the land and waters that constitute the North. We have discussed the North's bountiful resources. We have discussed the challenges of great distances and uncertain climate. But what must be discussed before this report attempts to wrestle with some of the key issues that face Canada in the North are the people of the North.

Whether your main interest in what transpires on top of the world is . . .

- The social and economic well being of the North's inhabitants,
- Protection of the North's fragile environment,
- Development of the North's resources,
- Ensuring Canadian sovereignty in the North, or
- All of the above,

. . . members of the committee are convinced that understanding and dealing with the needs and wishes of the inhabitants of the North are key to success in every one of these areas.

We have one more important point to make here: those who presume that the needs and wishes of northerners are the same as the needs and wishes of southerners are doomed to ignorance. There is a great deal of diversity within the North's population of 100,000 + people. But most northerners – whether they were born in the North or have moved to the North – know that protocols, arguments and attitudes that help overcome challenges in the South will not necessarily lead to success in the North.

If Canada as a country is to play an effective and fair role in the North, the northern homeland must be on side. Take sovereignty. Northern sovereignty issues are never going to be settled militarily – one cannot imagine a Canadian-Russian shootout in fragile northern waters, and one cannot imagine Canada winning such a shootout were it to occur. Sovereignty issues are far more likely to be settled in Canada's favour if we can offer international courts evidence that our nation is helping to sustain the people who have actually lived in the North for thousands of years – and sustain them in ways that respond to their expressed wishes. Resource projects are far more likely to move ahead if northern inhabitants feel they are being dealt with fairly.

Senator Sibbeston: “I come from the Northwest Territories. I am particularly interested in what you say with respect to sovereignty and the effect on or benefit to the Inuit people living in the Arctic. What do they contribute to the question of sovereignty?”

Donat Pharand, Professor Emeritus, Department of Geography, University of Ottawa: “. . . It is well documented that the Inuit have used Amundsen Gulf, Barrow Strait and Lancaster Sound, those three areas in particular, from time immemorial . . . The historic use of those waters by the Inuit could be used to consolidate . . . and solidify some of those lines in particular.”¹²

¹² Donat Pharand (University of Ottawa), Proceedings (Evidence) of the Standing Senate Committee on Energy, Environment and Natural Resources, Issue # 10, 27 May 2008.

I. Who are the People of the North?

“Public pronouncements on northern policy priorities rarely mention Inuit and other Aboriginal peoples and, when they do, the references are footnotes and afterthoughts . . . Federalism belongs to all of us: the front-line role of managing the Canadian Arctic should be entrusted to the peoples of the Canadian Arctic.”

Mary Simon,
President, Tapiriit Kanatami¹³

Here are a few basic facts about the people of the North and how they live. Of course numbers and other facts cannot come close to capturing the flavour of life in the North, but at least they are a starting point to understanding what makes the Territories tick.

ABORIGINALS: In Nunavut, 85 percent of the population is primarily Inuit.¹⁴ In the Northwest Territories, 50 percent of the population is Aboriginal.¹⁵ In Yukon, it is an estimated 25 percent.¹⁶ While many Aboriginal Canadians have adopted some of the trappings of southern lives (teenagers engrossed in cell phone conversations are not an unusual sight), there is also a strong attachment to traditional ways that manifests itself in many ways, particularly governance [see below].

COMMUNITIES: Communities tend to follow the patterns of traditional settlement, and therefore usually nestle beside rivers, lakes and coastal areas. Generally speaking, each of the three Territories has one or two larger population centres and many smaller communities.

EMPLOYMENT: Statistics Canada reported in its 2006 Census that 21,350 were employed in the Northwest Territories, 17,315 in Yukon, and 10,670 in Nunavut.¹⁷ The total of 49,335 makes

¹³ Simon, Mary. “Federal northern strategy: back to Diefenbaker or building for the future? *The Hill Times*, March 31, 2008.

¹⁴ Statistics Canada, *2006 Census*, <http://www12.statcan.ca/english/census06/data/profiles/community/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=6204003&Geo2=PR&Code2=62&Data=Count&SearchText=Iqaluit&SearchType=Begins&SearchPR=62&BI=All&Custom>, [last accessed April 6, 2009].

¹⁵ Indian and Northern Affairs Canada. <http://www.ainc-inac.gc.ca/enr/clc/adp/ia/nwt-eng.asp>, [last accessed April 6, 2009].

¹⁶ Statistics Canada, *Aboriginal Population Profile*, <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92594/details/page.cfm?Lang=E&Geo1=PR&Code1=60&Geo2=PR&Code2=01&Data=Count&SearchText=Yukon%20Territory&SearchType=Begins&SearchPR=01&BI=All&GeoLevel=&GeoCode=60>, [last accessed April 6, 2009]. Aboriginal people are those persons who reported identifying with at least one Aboriginal group (i.e., North American Indian, Métis or Inuit) and/or those who reported being a Treaty Indian or a Registered Indian as defined by the Indian Act and/or those who were members of an Indian Band or First Nation.

¹⁷ Statistics Canada, *Employed labour force by place of work, by province and territory*, <http://www40.statcan.ca/101/cst01/labor40a-eng.htm>, [last accessed April 6, 2009].

up about half the population of the three territories. Many northerners are employed by community and territorial governments, but others make their living in a wide variety of ways, including hunting, trapping, fishing and other traditional occupations. But there are also diamond miners, oil company employees, shopkeepers, and just about every other occupation that can be found in the South. Statistics Canada reports that, for 2007, average weekly earnings – including wages and salaries, social assistance and health care – was lower than the Canadian average of \$703.04 in Nunavut (\$656.69), but higher in N.W.T. (\$1,293.41) and Yukon (\$850.12).¹⁸

COSTS: In many cases, food needs to be flown into the North. One litre of milk can cost as much as \$4.49, compared to about \$1.69 in Calgary.¹⁹ Of course many people rely on indigenous food, for reasons of health, cost and social relationships. But other northern costs are also high. Building transmission lines to serve remote communities hundreds of kilometres over difficult terrain cannot be done cost-effectively. Most of the smaller communities rely on their own diesel generators, the fuel for which must also be imported by air or barge. The N.W.T. government estimated that utility costs in 2005 were 93 percent higher than the Canadian average.²⁰

GOVERNANCE: We all know the territories are not provinces, but what does that mean exactly? One big difference is that, in southern Canada provincial governments have jurisdiction over resources whereas in the territories, the federal government retains and controls natural resources. Royalties from resource development are paid to Ottawa, not to Iqaluit, Yellowknife or Whitehorse. Territorial governments are forced to rely heavily on federal grants. Only a relatively small proportion of their revenues come from taxes and permit fees for which authority has been transferred from the federal government to a particular territorial government. So far Yukon is the only territory to have gained some control over natural resources, but even there the transfer was of administrative responsibility not ownership. The bulk of Yukon's revenues still flow from federal grants. There is some joint management of resources written into settlements between the federal government and a number of First Nations and Inuit governments. Various land claims agreements have returned ownership of resources to Aboriginal peoples in Settlement Lands, and granted them surface rights in Traditional Lands. As stated in a recent review of regulatory processes in the North, "the basic philosophy underlying the framework is that those associated with the land, which is to be impacted by proposals for development, should have significant input into the decision-making respecting that proposed development."²¹

¹⁸ Statistics Canada, *Average weekly earnings, health care and social assistance, by province and territory*, <http://www40.statcan.gc.ca/101/cst01/health23-eng.htm>, [last accessed April 6, 2009].

¹⁹ CBC News, "N.W.T. MLAs call for milk subsidy in remote communities," September 24, 2008 <http://www.cbc.ca/canada/north/story/2008/09/24/nwt-milk.html>, [last accessed April 6, 2009].

²⁰ Government of the Northwest Territories "Energy and the Economy," <http://www.iti.gov.nt.ca/publications/2007/Energy/Energy%20And%20The%20Economy%20FactSheet.pdf>, [last accessed April 6, 2009].

²¹ Indian and Northern Affairs Canada, May 2008. *Road to Improvement The Review of the Regulatory Systems Across the North* ("the McCrank Report"), p.2.

II. What We Heard

Before our trip, the committee spent many weeks preparing, reading recommended documents and listening to testimony from northerners and people who work with northerners. We asked questions of many official witnesses in Ottawa and had informal discussions with countless other people. We received excellent presentations on a broad range of topics related to our mandate. Committee members were impressed with the knowledge and passion of those who took the time to help us on our mission. As we listened, four overarching areas of concern began to emerge:

- A. The need to deal with climate change,
- B. The need to strengthen infrastructure,
- C. The need for more comprehensive research, and
- D. The need to facilitate governance.

A. The Need to Deal With Climate Change

“The reality is that the Arctic, from a climatic condition, is fundamentally changing. It is changing to a degree that both Western science and traditional knowledge are having trouble coming to terms with how drastically and fast the change is occurring.”

*Rob Huebert,
Associate Director of the Centre
for Military and Strategic Studies,
University of Calgary*

Climate change is a huge issue in the North. The North has been compared to the canary sent down into the mine – if it dies, the mine is unsafe. But that suggests that the well-being of the canary is incidental, which is hardly the case with respect to the well being of northerners. They matter, and their way of life is being imperiled by climate change. It is clear to northerners that climate change is real and that urgent action needs to be taken, both to mitigate it and adapt to its effects.

What shocks so many of the people we talked to is the rapid rate of ecological change being experienced in the North: “it far exceeds earlier predictions,” according to David Livingstone, Director, Renewable Resources and Environment, Indian Affairs and Northern Development.²² Committee members heard that

“For a variety of environmental reasons, the pace and reach of global warming are more pronounced in the Arctic than in other parts of the world. Arctic regions and communities face some unique problems of change and adaptation, as well as sharing in problems facing the planet as a whole.”

Source: Inuit Tapiriit Kanatami,
An Integrated Arctic Strategy
January 2008, p.5

²² David Livingstone, (Director: Renewable Resources and Environment, Indian and Northern Affairs Canada), Meeting in Yellowknife, Northwest Territories, 2 June 2008.

the Mackenzie Delta has already warmed an estimated two to three degrees in the past 10 or 15 years. Further warming is likely to cause significant damage to this fragile environment.²³

It is true that much of the evidence we received on climate change was anecdotal. But gloomy anecdotes are sure indicators that frightening statistics are on their way. One small example: It actually rained one mid-winter day not long ago in Inuvik. This may induce a shrug from Vancouverites, but it was an historic event at 68 degrees latitude – an aberration complete with thunder and lightning that nobody this far north had ever experienced before. Buildings as far north as Inuvik are actually beginning to list as the permafrost melts, a phenomenon that also threatens the stability of wastewater and sewer systems.

Water levels are rising all along the northern coast; villagers showed us where they'd already lost as much as four metres of coastal land in Tuktoyaktuk. One man told us about a personal disaster that occurred after he tied his dogs out near water where he had tied them for years. They all drowned in an unprecedented tidal surge. Glaciers are melting. Changes in snow cover and ice conditions in marine waters and freshwater lakes are forcing many hunters to abandon their traditional patterns of food gathering. Roads are becoming like roller coasters. The winter road built to provision diamond mines in the N.W.T. succumbed to warm weather earlier than usual in 2006. Needed supplies could not all be trucked in before the road melted, so the companies had to hire air freighters at a high cost.

Climate change is also having a significant impact on caribou. The herds appear to be shrinking; some observers are convinced they are starving. The theory is that warmer summers have bogged down herds and made it more difficult for them to reach their calving grounds. On a recent expedition, a hunter we talked to saw not one calf, when normally he would have seen many.

The change is threatening many northerners' food security and their livelihoods. In order to ensure a sustainable caribou population, northerners have been forced to introduce new regulations, which restrict hunting to certain prescribed areas and dates. There could also be problems with some invasive southern species that have begun to move north as the weather changes. Elk, white tail deer and mountain lions have been sighted well out of their normal range, which was unheard of ten years ago. Similarly, magpies, crows and house sparrows have been spotted in areas where they are not normally found. Some of these species bring potential problems. For instance, the white tail deer carry parasites fatal to species indigenous to the North. Many northerners are also alarmed about growing infestations of spruce beetles, fearing that these pests may wreak the same havoc as the pine beetle has in British Columbia.

The U.S. government's decision to place polar bears on its endangered species list – partially because of the belief that the future of the bears is threatened by climate change – is one of those motherhood decisions that warm the hearts of all animal lovers. Everyone loves polar bears. The downside for a sizable number of northern hunters and guides is a loss of an important

²³ Bev Buckway, (Mayor of Whitehorse), Meeting in Whitehorse, Yukon, 6 June 2008.

source of income earned from southern hunters in search of trophy pelts. The hunters and guides, like the bears, are victims of climate change.

***Mitigation of Climate Change Important,
But Adaptation Also Essential***

The North's population of 100,000+ is almost microscopic in the context of the earth's 6.8 billion inhabitants. That alone should make it evident that northerners are not the primary cause of the climate change that surrounds them and threatens their way of life.

Nevertheless, many northern communities are making admirable efforts to mitigate climate change. Most of these efforts are happening in larger communities with sufficient resources to take action. The municipality of Yellowknife, for instance, is working with local industries to share excess heat and power in an effort to minimize electricity generation. An audit showed space heating to be the primary source of Yellowknife's greenhouse gas emissions, so the city introduced a more energy efficient building code.

A municipal energy planning committee has also looked into the possibility of district heating rather than individual unit heating. Alternative energy sources, such as wood pellet burners, are being introduced. The burners are efficient and give off very little in the way of greenhouse gases. The value of these units was obvious to Mark Heyck, Yellowknife's deputy mayor, and the city has a program to install more of them.

“Super green homes will be so energy efficient, some people are saying you could heat your home with a cat. In a really cold winter, you may need two cats.”

The Hon. Jim Kenyon, Minister of
Economic Development,
Yukon Government

The city of Whitehorse, in the meantime, is implementing a Yukon Green Home Strategy that aims to produce more energy efficient homes. Jim Kenyon, Minister of Economic Development for Yukon, says the strategy is producing super-insulated houses – “R2000 on steroids”. “It will cost approximately an additional \$18,000 to build an average home, but that will save approximately \$13,000 in the heating plant and the balance would be recovered in a matter of a couple of years. From that point on, the operation and maintenance cost would be extremely low.”²⁴

Whitehorse municipal officials showed committee members their energy efficient fire hall and public safety building. City council would like to encourage the development of sustainable neighbourhoods, a concept that is gaining momentum in many cities in southern Canada. To encourage citizen participation and support, it held a series of “design charettes” to explore how multi-use developments combining retail and professional services, low-rise condominiums/rental apartments, and pedestrian-only access could contribute both to greater energy efficiency and an enhanced quality of life. Although the community process won awards, officials admitted that neighbourhoods have been slow to embrace the concept.²⁵

²⁴ The Honourable Jim Kenyon, Yukon Legislative Assembly, Hansard, 14 May 2008.

²⁵ Bev Buckway, Mayor of Whitehorse, Meeting in Whitehorse, Yukon, 5 June 2008.

Dealing with Harsh Reality

All these measures being taken to mitigate the effects of climate change are certainly commendable, and in this respect committee members were very impressed. But northerners are realistic about the fact that a lot of damage attributable to climate change has already been done – and more is on the way. No amount of mitigation of emission of greenhouse gases in northern communities is going to change that.

When houses are sinking into the muskeg, waters are rising, ice roads are melting and game is disappearing, measures need to be taken to adapt to a phenomenon that is unlikely to go into retreat in anybody's lifetime. Committee members were told repeatedly that the federal government needs to stop pretending that efforts at mitigation are in themselves going to ensure the survival of northern communities, and take action to deal with damage that is already wreaking havoc. Coastal erosion was cited as an example. Despite dramatic land losses, we were told that no serious measures are being taken to address the problem.²⁶

It is clear that the federal government must tackle climate change on both fronts –mitigation and adaptation – and it needs to do so with relentless vigour. In the words of Ronald Thompson, Interim Commissioner of the Environment and Sustainable Development , Office of the Auditor General of Canada, told the committee:

“Clearly, in addressing complex and long term issues such as adaptation to climate change, there will be a need for the government to, if I can use the vernacular, stick to it over the long term. That is, to work with a sense of urgency, year in and year out, for many years at a time.”²⁷

²⁶ Nellie Cournoyea, (CEO/Chair, Inuvialuit Regional Corporation), Meeting in Inuvik, Northwest Territories, 4 June 2008.

²⁷ Ronald Thompson, (Interim Commissioner of the Environmental and Sustainable Office of the Auditor General), Proceedings (Evidence) of the Standing Senate Committee on Energy, Environment and Natural Resources, Issue # 10, 4 March 2008.

B. The Need to Strengthen Infrastructure

“ . . . the changes in permafrost conditions have significant implications for the design and maintenance of northern infrastructure . . . with the reduction of sea ice cover and increased importance of marine transportation which will result from that, the result will be a less remote Arctic, bringing both opportunities for growth in a range of economic sectors and challenges associated with culture, security and the environment – so we see both opportunities and challenges.”

*Mark Corey, Deputy Minister,
Earth Sciences Sector,
Natural Resources Canada²⁸*

“Sovereignty must be built around people and infrastructure to show that people are actually using it.”

*Nellie Cournoyea,
Inuvik,
June 4, 2008²⁹*

Buildings. Pipelines. Water and sewer facilities. Communications networks. All kinds of infrastructure kept cropping up in our in discussions with northerners.

Municipalities in the North are facing an infrastructure deficit much like their counterparts in southern Canada. However, their need is greatly exacerbated by the effects of global warming that are hitting the northern territories earlier and harder than the southern provinces.

Derek Lindsey, Mayor of Inuvik, told us that it will cost at least \$140 million to repair buildings damaged by melting permafrost, and the problem is just beginning to manifest. This underscores the urgent need for research and development of solutions for melting permafrost. Ice roads have traditionally been lifelines in the North. But they have started to melt weeks earlier, which means at least some of them will probably have to be replaced with all-weather roads, which can be very expensive over long distances. The Government of the Northwest Territories budgeted \$1 million in May 2008 to fund a 22 kilometre all-weather access road from a gravel pit known as “Source 177” to Tuktoyaktuk.³⁰ This will help maintain a reliable gravel supply for the city, but it is just a start on the new network of roads likely to be needed.

²⁸ Mark Corey, (Deputy Minister, Earth Sciences Sector, Natural Resources Canada), Proceedings (Evidence) of the Standing Senate Committee on Energy, Environment and Natural Resources, Issue # 8, 1 May 2008.

²⁹ Nellie Cournoyea, (CEO/Chair, Inuvialuit Regional Corporation), Meeting in Inuvik, Northwest Territories, 4 June 2008.

³⁰ Government of the Northwest Territories, 2008 – 2009 Supplementary Appropriation No. 1, May, 2008, 18: <http://www.fin.gov.nt.ca/documents/budgetdocuments/supps/2008-2009-Supplementary-Appropriation-No1.pdf> [last accessed April 6, 2009].

Mackenzie Valley Gas Project

It has been estimated most recently that the Mackenzie Valley gas project would cost \$16.2 billion, but it, too, would depend on reliable transportation infrastructure. So the real cost could increase if global warming continues to disrupt the North. Robert Reid is President of the Mackenzie Valley Aboriginal Pipeline LP, which will be a part owner in the project. He told the Committee that global warming has already changed the time estimate for construction from two years to three years.³¹

The Mackenzie Valley gas project is of vital interest in the North. Most northerners we talked to were anxious to get on with construction as soon as the Joint Review Panel and the National Energy Board bring in their reports, all land claims are settled, and the federal government gives its approval. Committee members found strong (but not universal) support for the project in most of the communities we visited. Should the project proceed, it will facilitate the development of an estimated 9 trillion cubic feet of onshore and offshore natural gas reserves in the North. According to Mr. Reid, it would also include access and benefit payments when it crosses Aboriginal land, as well as provide access taps for each community located within a reasonable distance of the pipeline.

Alternative Energy

We were told that there has been a great deal of discussion about the possibility of introducing alternative energy projects in the North, but that municipalities don't have the kind of money that would be required to pursue them. Some funding assistance has been forthcoming from the Federation of Canadian Municipalities (FCM). Both Yellowknife and Whitehorse are doing feasibility studies on geothermal heating, supported by FCM's Green Municipal Fund. The Green Municipal Fund was initiated through a \$550 million endowment from the federal government. Speaking on behalf of the Municipality of Yellowknife, Deputy Mayor Heyck told us all Canadians would benefit if the federal government doubled its endowment.³²

Northerners are exploring the use of wind power at various locations. Tuktoyaktuk would like to install two wind turbines to supply an estimated 20 to 30 per cent of the town's power, at an estimated cost of about \$1.5 million dollars.³³ Natural Resources Canada has committed \$300,000 to the development, but that leaves a significant funding shortfall. David Tenney, of Yukon Chamber of Mines, told committee members that at least one mine in Yukon Territory will be experimenting with wind as an energy source. If the experience at that mine proves successful, more wind turbines will be installed.³⁴ Mines consume a great deal of diesel fuel, so a renewable energy source such as wind power would be most welcome.

³¹ Robert Reid, (President, Mackenzie Valley Aboriginal Pipeline LP), Proceedings (Evidence) of the Standing Senate Committee on Energy, Environment and Natural Resources, Issue # 10, 27 May 2008.

³² Mark Heyck, (Deputy Mayor of Yellowknife), Meeting in Yellowknife, Northwest Territories, 2 June 2008.

³³ Mervin Gruben, (Mayor of Tuktoyaktuk), Meeting in Tuktoyaktuk, Northwest Territories, 5 June 2008.

³⁴ David Tenney, (Director, Yukon Chamber of Mines), Meeting in Whitehorse, Yukon, 6 June 2008.

C. The Need for More Comprehensive Research

Even as increasing pressures from climate change and non-renewable resource development pose new challenges for Canada's North, policy and decision makers are too often bedeviled by an insufficient knowledge base. Witness after witness emphasized the need for more data, whether they were talking about the impacts of resource exploitation, the effect of global warming or sovereignty in the Arctic.

“Sound policy making and decision making must be grounded in fact. Global climate change amplifies the stakes ... There is ample scope for misunderstandings between Aboriginal and non-Aboriginal participants in research for a variety of historical and cultural reasons.”

Source: Inuit Tapiriit Kanatami,
An Integrated Arctic Strategy
January 2008, p.23

Baseline Data

Committee members were told that if ecosystems in the North are to be protected, early and persistent monitoring is crucial. There is no question that the sheer size of the territories militates against any simplistic or inexpensive answers to this problem. As Terry Billy, a councillor with the Council of Yukon First Nations, reminded us, “there is no one North”.³⁵ Filling gaps in the ecological and other knowledge bases would help assure that both public and private sector initiatives are in everyone's best interests in the coming years.

Many of the efforts to collect data in the North have been associated with short term initiatives related to proceeding with specific projects. Different regions of the North need a more coherent picture of forces that are likely to interact systematically. Additional resources, coordination and knowledge are needed to lay a foundation for addressing longer-term issues.³⁶

The N.W.T.'s Cumulative Impacts Monitoring Program (CIMP) offers an excellent example of this approach. Mandated by the *Mackenzie Valley Resource Management Act*, and the Sahtu, Gwich'in and Tlicho Land Claim Agreements, CIMP uses a community-based, partnership approach to design and implementation. A working group reviews and ranks proposals for funding, and decides on successful recipients according to CIMP application criteria. Since its inception in 1999, CIMP has provided funding for over 100 short term monitoring and research projects conducted by an array of government, Aboriginal, academic and non-profit organizations.

Sadly, CIMP has largely been forced to stutter along with ad hoc funding through departmental reallocations. Intermittent, unpredictable and untimely contributions have been the norm over the past decade and no long term commitment to sustained funding has ever been made. The multi-stakeholder Working Group's Five Year Work Plan outlines a requirement for \$16.2 million over five years (approximately \$3.2 million annually). A Treasury Board

³⁵ Terry Billy, (Council of Yukon First Nations), Meeting in Whitehorse, Yukon, 5 June 2008.

³⁶ David Livingstone, (Director: Renewable Resources and Environment, Indian and Northern Affairs Canada), Meeting in Yellowknife, Northwest Territories, 2 June 2008.

submission for this commitment is now in its 11th version and still no commitment has been made.

Natural Resources Canada has published a compendium of existing research findings on climate change that could serve as an initial stepping stone toward coordinating the current body of knowledge.³⁷ More needs to be done in this crucial area. One suggestion, offered by David Livingstone of Indian and Northern Affairs Canada (INAC), would be to build a series of scenarios, models and projections to determine whether science supports the growing accumulation of anecdotal evidence that climate change is riding an upward curve. The models could then be applied to specific issues such as permafrost melting. Understanding various precise components of global warming impacts would be extremely useful in helping northerners devise effective policies and programs to deal with anticipated impacts.³⁸

Honouring Traditional Knowledge

Traditional Ecological Knowledge (TEK) is a system of knowledge accumulated by indigenous peoples whose close association with the land over many thousands of years has heightened their understanding of how natural processes work together. Environment Canada describes three categories of TEK:³⁹

- The first category concerns knowledge about and a specialized vocabulary to describe specific components or aspects of plants, animals, and phenomena. This is somewhat similar to the field of systematics, with its attendant systems of classification.
- The second category concerns the development, evolution, and use of appropriate technologies for hunting, fishing, and trapping.
- The third category is more complex and is the least well understood, yet it is potentially the most significant of the three. It concerns the understanding of and intimate relationship with environmental systems as a whole.

Integrating TEK with western science is notoriously difficult. Stories abound of southern researchers either ignoring or abusing TEK. We were told of one instance in which an elder shared information about an ancient cache of mammoth bones with a visiting scientist, who promptly published a paper about his “discovery” in a learned journal without acknowledging the First Nations’ intellectual property in the subject.⁴⁰ That is not an appropriate way to honour

³⁷ Natural Resources Canada “From Impacts to Adaptation,” http://www.adaptation.rncan.gc.ca/assess/2007/index_e.php [last accessed April 6, 2009]

³⁸ David Livingstone, (Director: Renewable Resources and Environment, Indian and Northern Affairs Canada), Meeting in Yellowknife, Northwest Territories, 2 June 2008.

³⁹ Environment Canada, “The State of Canada’s Environment 1996,” <http://www.ec.gc.ca/soer-ree/english/SOER/1996report/Doc/1-6-9-5-6-1.cfm> [last accessed April 6, 2009].

⁴⁰ Terry Billy, (Council of Yukon First Nations), Meeting in Whitehorse, Yukon, 5 June 2008.

traditional knowledge. In many cases, TEK has brought valuable information and insights to the table. It needs to be harmonized with other knowledge sources in order to give us a more comprehensive understanding of the North.

Arctic Research Station

The Speech from the Throne of October 16, 2007 committed the Government of Canada to delivering a Northern Strategy, including the construction of a world class Arctic research station.⁴¹

Subsequently Indian and Northern Affairs Canada commissioned a peer review of stakeholder input into a proposed agenda for the promised Arctic research station. The Council of Canadian Academies convened an international panel of scientists to undertake the review, which confirmed four science priorities suggested by the stakeholders:

- Sustainable resource development,
- Environmental science and stewardship,
- Climate change, and
- Healthy and sustainable communities.

The panel added observation and monitoring, which it said constitute “an indispensable core activity for building our knowledge base, understanding the environment, exercising stewardship and managing resource development.”⁴²

Several witnesses recommended that any such funding be dedicated to a research *network* rather than a single institute, arguing that a network would be better able to capture a wide diversity of research subjects in addition to optimizing results from existing research programs. Two models were put forward. One is CAVIAR (Community Adaptation and Vulnerability in Arctic Regions), an international research consortium consisting of partners from eight Arctic nations, including Canada. The second is ArcticNet, which brings together a network of researchers and their partners in Inuit communities, government and the private sector.

The panel convened by the Council of Canadian Academies did not recommend such a network, offering instead a “two-hub model” with a logistical hub in a central location, as well as a scientific hub in “an attractive and scientifically interesting area”.

However, the addition of monitoring to the responsibilities of this project did fill an important void. In a paper called *Monitoring the Mackenzie Gas Project* prepared for the Water Resources

⁴¹ Government of Canada, “Speech from the Throne: Protecting Canada’s Future,” November 19, 2008 <http://www.sft-ddt.gc.ca/eng/media.asp?id=1364> [last accessed April 6, 2009].

⁴² Council of Canadian Academies, *Vision for the Canadian Arctic Research Initiative*, November 2008, p.10. The other theme added to the priorities list for the initiative is technology.

Division of Indian and Northern Affairs Canada, author C.R. Burn made the following observations:

“[A] monitoring program should be seen as an investment in capacity for future environmental governance in the project area, so local personnel should be professionally involved to the greatest extent possible . . . in our North, the lack of information on specific sites and the short duration of many environmental records mean that data collected in structured, formalized and open monitoring systems will facilitate deliberations of regulatory panels and boards struck to government future projects.”⁴³

Good Research Underway

A number of impressive research activities are already taking place in the North, many in smaller institutes or facilities affiliated with northern colleges. One of the most interesting is a field study to determine ways in which clathrate hydrates could be extracted and used for fuel. Clathrate hydrates (or gas clathrates or gas hydrates) are “ice-like substances composed of water and natural gas that form when gases, (mainly biogenic methane produced by microbial breakdown of organic matter) combine with water at low temperature and high pressure.”⁴⁴ These hydrates exist under large portions of the world's Arctic areas and on deep sea continental slopes in water depths greater than about 600m. All three Canadian continental margins contain gas hydrates. The Mackenzie River delta, in the N.W.T., contains some of the most concentrated deposits in the world.⁴⁵ Gas hydrates can also exist in permafrost, as demonstrated in the Mallik gas hydrate field in the permafrost of the Mackenzie Delta.⁴⁶

Scientists believe that these methane hydrates could be one of humanity's primary energy sources in the future, but no economic way has yet been found to extract them. Furthermore, methane is one of the major ‘greenhouse gas’ contributors to climate change. A test well was drilled in 2008 under the auspices of the Geological Survey of Canada as part of an ongoing study. Funding was provided by the Japan National Oil Corporation, while onsite management and data collection were conducted by the Aurora Research Institute out of Inuvik.⁴⁷ Japan is aggressively exploring this resource potential.

⁴³ Burn, C.R., Monitoring the Mackenzie Gas Project, 12 August 2007.

⁴⁴ NRCAN, Earth Sciences Sector, Priorities, Gas Hydrates - Fuel of the future? http://ess.nrcan.gc.ca/2002_2006/ghff/index_e.php

⁴⁵ *Ibid.*

⁴⁶ NRCAN, Earth Sciences Sector, Priorities, Geological Survey of Canada, Mallik 2002, Backgrounder, Mallik Gas Hydrate Research Well Program, http://gsc.nrcan.gc.ca/gashydrates/mallik2002/backgrounder_e.php

⁴⁷ Andrew Applejohn, (Director, Aurora Research Institute), Meeting in Inuvik, Northwest Territories, 4 June 2008.

D. The Need to Facilitate Governance

Governance structures in the North are unique. Nowhere else in Canada does a combination of federal resource ownership, delegated authorities, elected councils, Aboriginal and territorial governments constitute governance. For southern Canadians, the complex interrelationships can seem bewildering. The Territories constitute one of the most advanced models of shared decision-making in the world, but it is still evolving and those involved are still looking for ways to make that decision-making process less ponderous.

Regulatory framework

Consider the approvals process for resource developments. A regulatory framework has evolved over time, as land claims have been settled. One consequence of this “is that more regulatory powers are now exercised by more bodies in more areas than ever before. Across the North, the previous jurisdiction of INAC and two water boards (for Northwest Territories and present day Nunavut and for Yukon) have been replaced and supplemented by 20 plus co-management bodies; each with their own membership, staff and advisors. The largest number of these boards is found in the Northwest Territories.”⁴⁸

Clearly, consensus is a watchword in the North; given the number of oars in the water, the boat is unlikely to go far unless all these decision-makers paddle together. But finding consensus can be a far more frustrating process than proceeding by simple majority rule. Many witnesses addressed this in connection with the Mackenzie Valley gas project. We heard many expressions of frustration over extended timelines for the review process that has been ongoing since 2004 and will not end until 2010 at the earliest. The committee repeatedly listened to complaints that it is time for a final decision to be made. Uncertainty about the future of the project translates into uncertainty over planning, funding and marshalling of resources all down the line. There are many northerners who feel they have been waiting too long for jobs and other benefits that they believe will accompany the building of the pipeline.

“In recommending restructuring in the Northwest Territories there has been recognition that this will only be accepted if there is a genuine effort to include the voice of the North through effective Land Use Plans, a northern Land and Water Board (MVLWB), and a northern Environmental Assessment Board (MVEIRB), that are independent and final decision makers.”

Source: Neil McCrank, *Road to Improvement: The Review of the Regulatory Systems Across the North Initiative*, May 2008, p.38

⁴⁸ Indian and Northern Affairs Canada, May 2008. *Road to Improvement The Review of the Regulatory Systems Across the North* ("the McCrank Report"), pp.2-3.

“I think we will be facing the situation very soon where the companies will say that it has taken too long to build the pipelines, that they will not build the pipeline now and that they will use this new offshore terminal technology, combined with the ice-strengthened tankers to get to the oil and gas that they wanted to ship by pipeline.

[I]f you talk to most of the folks doing the pipelines on the Canadian and American side, you will see that there is a growing concern in terms of how to maintain the integrity of a pipeline in the face of collapsing permafrost.”

*Rob Huebert,
Associate Director of the Centre
for Military and Strategic Studies,
University of Calgary*

Over the past few years, the Mackenzie Valley Land and Water Board has been working with other regulatory agencies in a cooperative fashion to develop a clear and consistent process. An examination of different boards' regulations and procedures revealed numerous overlapping provisions and potential conflicts within terms and conditions. As a result of the harmonization process, some 1,500 regulatory requirements were reduced to 600. An additional bonus from this exercise is that a number of regulators now have a much better understanding of each other's processes. We would hope that this has led to greater efficiency while maintaining the integrity of environmental processes.

Cutting Through Red Tape

Resource development in the north involves numerous steps and boards, as noted in the Auditor General of Canada's 2005 April Report. Chapter 6 of this Report examined the process of resource development with a view “to ensure that it is sufficiently robust to meet the challenges and realize the opportunities of the coming decade.”⁴⁹ Among the recommendations it stated that “Indian and Northern Affairs Canada should work with the boards under the *Mackenzie Valley Resource Management Act* to identify best practices and to assess training needs and provide for them, where appropriate.”⁵⁰ Despite some progress in this area, difficulties remain.

In November 2007, the federal government established the Northern Regulatory Improvements Initiative in an effort to consolidate and streamline regulatory regimes in the North. Headed up by Neil McCrank, former chair of Alberta's Energy and Utilities Board, the review focused primarily on the N.W.T., although it also commented in passing on Nunavut and Yukon.

The McCrank Report, released in July 2008, recommended that the regulatory framework in the N.W.T. be restructured, either by giving the Mackenzie Valley Land and Water Board exclusive jurisdiction over land and water permits, or by making it the final arbiter of decisions arising

⁴⁹ Auditor General of Canada, 2005 April Report of the Auditor General of Canada, Chapter 6, Indian and Northern Affairs Canada, Development of Non-Renewable Resources in the Northwest Territories, http://www.oag-bvg.gc.ca/internet/English/parl_oag_200504_06_e_14937.html#ch6hd3a

⁵⁰ Ibid.

from existing regional boards. Similarly, the Mackenzie Valley Environmental Impact Review Board (MVEIRB) would act as the final recommender on environmental matters. All 18 specific recommendations for the N.W.T. included the need for the federal government to clarify its own role. The government was urged to prioritize the approval of land use plans (some of which have already been formulated by First Nations with respect to their Settlement Lands), to commit to long term funding for the N.W.T. Cumulative Impact Monitoring Program and to identify gaps and inadequacies in current legislation.⁵¹

Some of the witnesses heard by McCrank said they needed more positive coordination and communication amongst boards and departments at all stages of project development. Observing that a Major Projects Management Office has recently been established in southern Canada to provide a single point of entry into the federal regulatory process, the federal government was encouraged to explore “a made-in-the-North equivalent” to “assist in coordinating federal departments and the greater N.W.T., as well as liaise with, the regulatory bodies for all projects, major and minor.”⁵²

Resource Ownership

Negotiations for a devolution agreement between the Northwest Territories and the federal government continue at a somewhat stately pace. A Memorandum of Intent was signed in 2001 and discussions have been sputtering along intermittently for seven years. A primary issue is the amount of money Ottawa will grant to the N.W.T. in lieu of royalty revenues.

The committee was told that the N.W.T. recently declined a devolution package which included annual grants because anticipated oil and gas revenues were expected to exceed revenues from the proposed grants.⁵³

One Size Doesn't Always Fit All

Nothing is more frustrating for northern Canadians than inappropriate regulations imposed by well-intentioned but poorly informed southerners. Committee members heard a number of tales of absurdities brought about by inappropriate assumptions in the South.

Here is one. Transportation Canada introduced new aircraft maintenance regulations a while ago that required all work to be done in hangars. No doubt the rules were prompted by concerns for safety, but they didn't sit well with people in the North who rely so heavily on air transport to ferry goods and people into remote areas, and where air ambulances frequently offer the only hope of survival. One pilot took it upon himself to demonstrate how poorly the regulations

⁵¹ Indian and Northern Affairs Canada, May 2008. *Road to Improvement The Review of the Regulatory Systems Across the North* ("the McCrank Report"), pp. 38-43.

⁵² Indian and Northern Affairs Canada, May 2008. *Road to Improvement The Review of the Regulatory Systems Across the North* ("the McCrank Report"), p. 43.

⁵³ The Hon. Michael Miltonberger (Minister of Environment and Natural Resources), Meeting in Yellowknife, Northwest Territories, 3 June 2008.

suited situations he encountered on an everyday basis. When a department official was in town for a routine inspection visit, the pilot offered to fly him out over the wilderness to see the magnificent sights in Yukon. The official eagerly accepted. After an hour or so of pleasant flying, the pilot suddenly announced he had to make an emergency landing. Some technical problem had occurred and he needed to check it out before they continued. So they landed in a clearing in the forest, the pilot looked things over, and then sat down on a nearby log saying he guessed they'd be there for a while until somebody came to rescue them. "But, can't you fix the problem?" asked the official. "Well, yes I can," replied the pilot. "But not unless we're in a hanger." Shortly afterwards, the regulations were changed to accommodate northern realities.⁵⁴

Then there was the time an Ottawa intergovernmental affairs officer complained bitterly that his repeated requests for a sample tree from the Department of Forestry in Nunavut had been totally ignored. One can only imagine the look on his face when he was politely informed, months later and by a Yukon resident who listened sympathetically to his tale of woe at an official reception, that "of course they didn't respond ... they're above the tree line!"⁵⁵ Well, Nunavut does have a few trees, but not many. The point was well made.

III. Recommendations

Recommendation 1

The federal government should increase and sustain its funding of research in the North and in doing so, place greater emphasis on monitoring and data collection that will help track long term trends in climate change. In particular, multi-year funding for the N.W.T. Cumulative Impact Monitoring Program (CIMP) should be granted immediately.

Recommendation 2

While continuing to fund initiatives to address the impacts of climate change in the North, the federal government should increase its funding of measures municipalities and territorial governments require to *adapt* to climate change. For example, it is necessary to address the problem of replacing ice roads with permanent all-weather roads and to address sinking buildings and eroding shorelines.

Recommendation 3

The federal government must address the urgent need for research and development of solutions for melting permafrost.

⁵⁴ Bev Buckway, (Mayor of Whitehorse), Meeting in Whitehorse, Yukon, 5 June 2008.

⁵⁵ The Hon. Jim Kenyan, (Minister of Economic Development), Meeting in Whitehorse, Yukon, 6 June 2008. There is, needless to say, no Department of Forestry in Nunavut.

Recommendation 4

The federal government is urged to provide immediate additional funding for an all-weather road from the gravel pit known as “Source 177” to Tuktoyuktuk to ensure the completion of this transportation lifeline.

Recommendation 5

The federal government should ensure that the design of the Arctic Research Institute promised in the 2007 budget speech is centred around the concept of a northern network of researchers in various locations across the North, rather than bureaucracies placed in one or two locations. The name Arctic Research Network should replace the name Arctic Research Institute to ensure that the network concept thrives.

Recommendation 6

Given the lengthy time it is taking to conclude the studies of the Joint Review Panel and the National Energy Board, the federal government should take every measure possible to make quick decisions concerning the future of the Mackenzie Valley Project when those reports are finished.

Recommendation 7

In making plans to allocate resources for strengthening Canada’s sovereignty claims in the North, the federal government should recognize that its support for the *people of Canada’s* North who face the difficult challenges associated with living in the North will be the most important component of Canada’s arguments in any international forum.

Recommendation 8

The federal government is urged to resolve a resource sharing agreement with the N.W.T. in a way that will dedicate resource revenues to enhanced education, housing and health standards for permanent residents of the North.

Recommendation 9

In dealing with the territorial and Aboriginal governments, the federal government should ensure that it places a high priority on local decision making, honouring existing collaborative frameworks and encouraging full local participation to help assure outcomes that work for northerners.

APPENDIX A

List of witnesses who appeared before the committee:

March 4, 2008

Office of the Auditor General of Canada:

Ronald Thompson, FCA, Interim Commissioner of the Environment and Sustainable Development;

Neil Maxwell, Assistant Auditor General;

Andrew Ferguson, Principal;

Richard Arseneault, Principal.

March 11, 2008

Indian and Northern Affairs Canada:

Patrick Borbey, Assistant Deputy Minister;

Giles Morrell, Acting Director, Oil and Gas Resources Management;

Sheila Riordon, Director General, Northern Oil and Gas.

April 15, 2008

Natural Resources Canada:

Mark Corey, Assistant Deputy Minister, Earth Sciences Sector;

Don Lemmen, Research Manager, Climate Change Impacts and Adaptation Directorate;

Sharon Smith, Permafrost Research Scientist.

May 1, 2008

As an individual:

Rob Huebert, Associate Director of the Centre for Military and Strategic Studies, Associate Professor, Department of Political Science, University of Calgary (by videoconference).

May 8, 2008

ArcticNet:

Martin Fortier, Executive Director;

Bernie Boucher, President of JF Boucher Consulting Ltd. and Chair of the Board of Directors.

NWT & Nunavut Chamber of Mines:

Mike Vaydik, General Manager.

May 27, 2008

Mackenzie Valley Aboriginal Pipeline LP:

Robert Reid, President.

Northern Gas Project Secretariat:

Brian Chambers, Executive Director.

As an individual:

Donat Pharand, Professor Emeritus, Faculty of Law, University of Ottawa.

APPENDIX B

List of organizations met during fact-finding mission to the Arctic:

Yellowknife:

Members of the Legislative Assembly of the Northwest Territories
Environment and Natural Resources, Government of the Northwest Territories
Fisheries and Oceans Canada
Indian and Northern Affairs Canada
City of Yellowknife
Ecology North
Mackenzie Valley Land and Water Board

Norman Wells:

Mountain Dene Ventures
Town of Norman Wells
Mountain River Outdoor Adventures
North-Wright Airways

Inuvik:

Department of Executive, Government of the Northwest Territories
Inuvialuit Regional Corporation
Inuvialuit Development Corporation
Inuvialuit Corporate Group
Town of Inuvik
Aurora Research Institute
Inuvik Gas Limited

Tuktoyaktuk:

Tuktoyaktuk Community Corporation

Hamlet of Tuktoyaktuk

Whitehorse:

Former Senator Honourable Ione Jean Christensen, C.M.

Department of Economic Development, Government of Yukon

Department of Energy, Mines and Resources, Government of Yukon

Department of Environment, Government of Yukon

Yukon Chamber of Mines

City of Whitehorse

Yukon College

Council of Yukon First Nations

