Circumpolar Climate Change Summit

Whitehorse, Yukon, Canada
March 19-21, 2001

This is the background document to the Whitehorse Declaration on Northern Climate Change.

PROCESS

Delegates submitted their top priorities in response to this question:

> **What actions should be taken to address climate change and its impacts on the Circumpolar North?**

The responses were distilled into a draft Declaration by a working group; this draft was reviewed by Summit delegates and, following revision, was released for signing prior to the end of the Summit. Additional comments received during the review period have been added to this background document as individual points under the main headings.

All responses from conference participants are included verbatim below, grouped under the six actions in the Declaration and under two additional categories. These two categories (collaboration and action) reflect underlying needs that are summarized in the preamble to the Declaration.

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6. **Take stronger measures to reduce greenhouse gas emissions**

Underlying Needs

1. **New collaborative efforts by nations and sectors of society**
2. **Stronger action by the North and the rest of the world**

ACTIONS

1. **We must develop a strong northern message on the effects of climate change and present this message nationally and internationally.**
   - The people of the north, those experiencing and studying climate change, are the voice for climate change and its impacts. Because human climate forcing is a global result, we need to educate the world on its reality and impacts. The most important action we could take is to inform the world and educate its people on the impacts of climate change and to initiate a global movement towards cutting emissions. Not only at an industrial scale but importantly at the individual scale.
   - Develop a strong, northern message on the effects of climate change and have northerners present that message internationally (model to use: POPs)
   - Engage the Americans, the John Birch supported nay-sayers, who are simply saying carbon dioxide is good for you, so that they understand the dramatic evidence of climate change already evident in the Arctic. Show them the Sachs Harbour video, etc. (such as the data in Don Lemmen's presentation.)
   - Need for all Arctic jurisdictions to speak together with a strong voice, to alert the world to what is happening in the Arctic. Form a Climate Alliance.
   - Communicate a clear Northern position regarding climate to federal negotiators in World Trade Organization and conferences involving NAFTA members.
   - We must do all we can to educate non-northern residents on the reality of climate change, almost all deleterious, already taking place in the North.

2. **We must use traditional knowledge and improve our scientific capacity to understand climate change impacts on northern ecosystems, economies, cultures, traditions and communities.**

   KNOWLEDGE NEEDS
   - Gather traditional knowledge: The Circle of Life was examined and respected by First nation people. The Elders are the last carriers/libraries of this life circle knowledge. Scientists need to incorporate this knowledge into climate change actions.
   - Incorporate traditional knowledge into science and solutions.
   - Expanded monitoring: hydrology, climate, glaciers Insufficient spatially and temporally at present.
   - Basic ecosystem research – marine and terrestrial. Critical for understanding potential impacts on harvested species.
   - Shift in focus to ecosystem-based monitoring and research.
   - Monitor and develop climate change indicators for the North.

- Monitoring and surveillance: establish baselines for assessing climate change impacts on community health and well-being
- Fill knowledge gaps on: impacts of climate change on community health and well-being in different regions; and on ability f health and social services and community to cope with impending or already existing climate change effects.
- Do we have sufficient focus on extreme events in our scenarios?
- Continue to try and understand and differentiate natural climate variability of the Holocene from human induced effects. This includes bas line science in northern environments. If the climate fluctuations have occurred in the past hen what were the consequences? Push to understand the long-term effects.
- Continue/accelerate scientific research that will allow us to better understand historic climatic change, and provide a framework for today's changes.
- Need enhanced research and monitoring to detect changes that may already be occurring, especially in remote northern areas.
- Focusing research to provide real evidence of warming and determining mitigative measures.

COLLABORATING AND SYNTHESIZING

- Thinkers need to work together to go over collected data – scientific and TEK and catalogue impacts. This baseline data should be used to predict future impacts and develop mitigations.
- Develop a status report on northern impacts, using the best of western and traditional science, to set a clear policy base for action. DIAND to coordinate as they did for contaminants program, working with governments and Aboriginal organizations.
- Need strong Canadian participation in research program, including in the Arctic Climate Impact Assessment.
- Collaborative research: Create linkages between the newly formed Arctic Athapaskan (Yukon, Dene, Inuit) Council and graduate students to carry out collaborative research on climate change in the circumpolar north.
- Develop and use a good national health impact assessment methodology.
- Measure effectiveness of proposed mitigation and adaptation measures on community health.
- Consider the study of climate change and the effect of a community as a system.

INCREASING CAPACITY

- Governments should ensure that adequate funding is available as soon as possible to conduct (and augment) the research needed upon which to base municipal planning and policy decisions.
- Recognize that the North, with its 60% of Canada's land mass north of the sporadic permafrost line, needs more financial resources than southern

regions to study climate change impacts and adaptations. Costs and travel are prohibitive in the North.
- Encourage local/regional investment in climate change monitoring, research and education, in partnership with national programs.
- Increase support for programs that conduct community-based monitoring projects.
- Build/rebuild northern science capacity in the North.- monitoring, modeling, etc.
- Graduate student funding: support graduate student research on climate change in the circumpolar north.

3. We must develop tools that will enable communities to better understand climate change, reduce their greenhouse gas emissions, and adapt to changing climatic and environmental conditions.

EDUCATING AND INFORMING

- I believe that education of the younger generations is the key. Right now, your generation has realized there is a problem, but my generation is the one who can act upon your realization and start to solve it. I believe that global and circumpolar north climate change should be part of Canada's (and other countries', later on) education systems. By placing this concern in the curriculum, you are making the younger generations more aware of this serious issue. Recycling and other environmental issues are in the curriculum, why not climate change? [author: age 16].
- Educate the public on climate change issues: crossing cross-culture barriers; crossing generation gaps.
- Increase knowledge of energy issues through increased funding of energy-related government programs. Knowledge is power.
- Education in communities regarding the causes of greenhouse gases and global warming.
- Education is definitely the key. Further educating people will definitely change things. More conferences like these will make a huge difference.
- Education capacity-building for northerners in North: colleges, University of the Arctic, college/university cooperation. Emphasis should be on secondary education.
- Work with all education levels to develop curricula that expose all students (K-12, college, university) to energy efficiency and renewable energy technologies on a level with fossil and other conventional energy technologies.
- Increased public awareness programs.
- The issue of educating young Canadians regarding energy efficiency and global warming.

INVOLVING COMMUNITIES

- Greater community involvement. The Public needs to better understand the science and demand action.
- Develop community-level co-ordinating bodies/groups to enhance community-wide partnerships from all sectors of the local economy and supportive organizations and individuals.
- Celebrate successes and actions taken by communities to reduce the vulnerability of their community to the impacts of climate change – give awards and hold celebratory events.
- Establish Climate Change/Energy Conservation offices in the communities to educate, advocate, and implement the energy conservation measures. Interest/involvement must be at community level.
- First Nations involvement, and local and community involvement in climate change research, mitigation and adaptation (can't be Whitehorse centered).
- Lever commitment to make personal changes through the engagement of individuals in addressing risks that pose a threat to their communities and families today.

4. We must ensure that all new and existing policies, standards, regulations, legislation, and management agreements become consistent with the goal of reducing greenhouse gas emissions and our vulnerability to climate change.

- Look at all planning/policy items in every government department to determine if they are current in terms of climate change criteria and express preparedness. If not, they should be changed so that appropriate action might ensue.
- We need to think about the implications of everything we do every day.
- Reaching our Kyoto target will not be enough. Develop a mechanism for action that has ability to keep effort alive including:
  - Clearer policy dimensions
  - Easier, more integrated actions
  - Integrated and adaptive decision making, incorporating all views
- Develop analytical framework and processes to ensure impact on climate change is considered whenever policies, programs and projects are developed.
- Ensure that all policies are clearly stated so that everyone knows where they stand.
- Always keep a global perspective in all regulations, guidelines. Think locally, nationally, and globally.
- Elevate each of environmental concerns, social and cultural concerns, and employment concerns, to equal footing with economic and business concerns in all deliberations and agreements at the international level.

5. We must establish effective incentives and remove the many barriers to improved energy efficiency and the widespread use of renewable energy.

- Enforcement of existing Kyoto greenhouse gas emission targets in Canada using a system of incentives and penalties. No more lip service.
- Tax the bejesus out of all fossil fuel production! Let's save those complex molecules for the plastics industry.
- Subsidize hydrogen production/transfer/utilization.
- Accentuate the positive economic benefits of a carbon constrained economy, as well as the costs.
- Promote green power – tax shifting; streamlining permits
- Carbon taxes on all greenhouse gases and carbon rebates for all greenhouse gas reduction. One hundred percent of income returned as rebates.
- Move beyond "no cost" solutions – recognize that climate change is serious and any serious attempt to address it will have economic consequences.
- Develop and employ methodologies to quantify the social costs (externalities) of greenhouse gas emissions in risk management strategies.
- Small communities should be encouraged (and possibly governmentally funded) to use alternative energy -- start small and work your way up.
- Stricter regulations on product packaging and a reduction on producing "junk" products which are a waste of energy and take up valuable landfill space.
- Rationing of household and business electricity – i.e. scheduled "black outs".
- All levels of government to directly sponsor the engineering and financial analysis of the instruments/projects which will reduce energy/greenhouse gas/fossil fuel use. Current programs have poor delivery points!
- Legislation that supports ecosystem-friendly energy sources and restricts and regulates the use of non-renewable resources: i.e. special permits required to own and operate V8 engine vehicles.
- Transportation really has to be addressed. It should be illegal to create fuel inefficient vehicle models, like the Ford Excursion.
- Government: set bold policy standards. E.g. 10% zero emission vehicles by 2010; all new houses to have 2-kilowatt solar systems from 2005; all landfills to capture methane; tax credits for all greenhouse gas reducing technologies.
- Make deployment funding available for renewable energy technologies – particularly for wind and solar technologies: funds to be provided through government incentives, low interest loans, tax benefits.
- Work towards a new ISO standard with respect to climate change.

- We must put in place incentives and monitoring measures to support reduction of greenhouse gases and to determine if decisions and actions at local and national levels are consistent with these goals. [additional action proposed to the six in the draft Declaration to address the concern that the Declaration is too general and too easy to work around].

6. We must ensure that all institutions, businesses, governments, families and individuals take far stronger measures to reduce greenhouse gas emissions.

TAKING STRONGER ACTIONS

- Governments (federal, territorial, First Nations) need to act and curtail industry if need be.
- As the hardest hit, the North must be leaders. We have to promote individual, measurable action and set an example.
- We [the North] must set a good example by:
  - reducing our own voracious and wasteful consumption of fossil fuels by energy efficiency (conservation);
  - Further replacing our voracious and wasteful consumption of fossil fuels by rigorously applying current alternative energy technologies. [reaction to the draft Declaration]
- Although we may be dependent on the global village to take the necessary actions to stabilize the world's climate, we can and must set an example. Anything else is hypocritical. We must start at the local level. [reaction to the draft Declaration]
- We [the North] must act as model citizens. We must reduce our emissions by practising what we preach. And as we practice, we then lead by example. We must also stop blaming the South (acting as victims) and instead become leaders for the world to see. Act locally, influence globally. [reaction to the draft Declaration]
- Yukon should be a leader in energy efficiency and green energy and refuse to let a gas pipeline cross over our territory.
- Civil society should hold government accountable for taking strong immediate action (not just one-third of the way to meeting our Kyoto commitments).
- Move to a hydrogen-based economy post haste.
- Provide Canadians with options to change lifestyle habits which contribute to greenhouse gas emissions.
- Canada should increase its efforts in the International arena to reduce greenhouse gas emissions – NOx as well as CO2 and CFCs et al.
- Much more federal/provincial commitment to urban mass public transit system. Systems that are based on minimizing CO2 and NO2 emissions.
- Global corporations with their associated advertising must become part of the solution not as currently being part of the problem, e.g. car makers, petroleum companies

- Convince political masters that action is imperative.

KNOWLEDGE, METHODS, TECHNOLOGY DEVELOPMENT

- Look for alternative energy sources such as wind and offshore wave energy facilities.
- Immediate action: Take stock of community energy use:
  - inventory energy sources being used and at what rate (i.e. heating fuel consumption);
  - investigate power generation options including renewables – feasibility.
  - investigate conservation measures (identify, quantify)
- Continue to develop and initiate technology that supports alternative energy production. Sell and promote this to the world with the message of climate change impacts behind it.
- Further investigation and research into the cumulative effects of the proposed gas pipeline. And proposed oil and gas exploration in the Yukon, Alaska and NWT. Why promote and support this initiative in the Yukon when it promotes the use of fossil fuels which causes “greenhouse gases”, “global warming” and ultimately “climate change”.

SPECIFIC ACTIONS

- Reduce the amount of energy consumption: vehicles run on less; less powerful and more efficient products where possible.
- Yukon should be a leader in energy efficiency and green energy and refuse to let a gas pipeline cross over our territory.
- Communities must be sustainable. Remote communities should be electrified by solar, wind. Snowmobiles should be banned for recreational use, garbage should be recycled and composted.
- Transportation, particularly in urban areas: allow for more easily accessible public transit. Look at Brussels, Belgium as a model of free public transit.
- Implement energy efficient solar, wind, earth energy, fuel cell technology to displace fossil fuels, particularly in diesel-dependent communities. See Foula Island (Shetland, Scotland) model.
- Build infrastructure for locally grown foods.
- Every off-grid community to develop the capacity to plan, construct, and maintain a generating plant using renewable resources.
- Have all northern communities off diesel power by 2015.
- Improve the quality of construction of houses and commercial buildings to improve energy efficiency.
- Reduce truck traffic: 1) by concise compressed packaging, i.e. no more vitamin bottles only one-quarter full. Bulk sales with reusable bottles is one solution. 2) Use more local produce. This lessens fuel consumption and vehicle maintenance and gives a fresher and more nutritious product.

This action may require motivating PR/promotion and education in using and enjoying local produce.

- Ensure that all future climate change meetings and conferences are conducted in a "carbon neutral" manner, e.g. by the purchase of carbon offsets to cover the greenhouse gas emissions released in the process of traveling to the meetings or conferences.
- It's time to stop and smell the roses. In other words, mankind needs to look at what he is doing by mass harvest of the earth's resources. He needs to look at less monetary gain and more to repair what he is extorting.
- I believe we need a fundamental shift in how we define quality of life and what people in industrialized countries are "entitled" to (e.g. unlimited use of personal vehicles).

UNDERLYING NEEDS

1. New collaborative efforts by nations and sectors of society

The Declaration recognizes that climate change is an interdisciplinary issue requiring an unprecedented level of collaboration by all nations and all sectors of their societies. The following actions are related to this:

- Work in terms of cooperation, partnership and coalition, building momentum for Northern action and influence globally.
- Build partnerships with similarly impacted parts of the world.
- Engage western governments (of nations) to recognize that costs of adapting to climate change, or to mitigate climate change, are in fact investments into new processes and technologies that will insure sustainable economic performance in the future.
- Federal and territorial governments should demonstrably (sincerely!) Take climate change seriously and start planning and obtaining the funds for municipal measures, which will be needed.
- Design and implement a global, national, regional, local and individual climate change strategy and program including three components – increasing understanding of climate change and impacts, adaptation strategies and ways to achieve real reductions in greenhouse gas emissions.
- We need new governance models to address this huge, cross-cutting issue.
- Include a health cost-benefit analysis in planning of mitigation and adaptation measures and technology.
- Increased co-ordination by all levels of government in the delivery of programs.
- Increase in international industry participation.

- To support the RAIPON (Russian Association of the Indigenous Peoples of the North) proposal to launch circumpolar project "Integration of science, traditional knowledge in climate change investigation, training and education."
- C-CIARN strategic planning must include broad range of representation – academic, local government, private sector, community organizations, First Nations.
- Resolve: Avoid media-reported disputes and conflicting messages on climate change and human greenhouse gas emissions.

2. Stronger action by the North and the rest of the world

The Declaration recognizes that stronger measures need to be taken to address climate change both in the North and throughout the world. The following actions are related to this:

- Prepare for climate change by adapting and anticipating impacts.
- The message of climate change needs to be heard outside of the science community. Let's get artists involved to get the scientific message out to the masses. Mitigation needs poetry!
- Formulate northern strategies for technology development.
- Capacity dollars to national Aboriginal Organizations for full and meaningful participation in the National Climate Change agenda.
- In policy-driven programs, assess the performance of the bureaucracy in meeting goals in a timely fashion. If these goals are not being met, replace the incumbents. Help private researchers, industry, marketers, and demonstrators. Make conferences, community development and communications efforts affordable to all. Subsidize gatherings to allow global teamwork.
- Capitalize on nascent grassroots awareness to effect REAL change at the political level.
- Mitigation, then lobbying other countries to follow suit. People will figure out how to adapt. (They will certainly need to.)
- Reform monetary system: Our resent Monetary System is based on debt. Money is created by chartered banks and financial lending institutions. Money has become a commodity and is no longer a symbol of exchange of goods and services. We have the Bank of Canada that should reclaim the creation (spending into the economy as was done during World War II) of money. Speculation on money is killing the planet.
- Adoption of rational and sustainable energy policies by developed nations – particularly the U.S.
- Canada's priorities on the Arctic Council do not reflect its great national effort. Need more support.
- Include community heath and well-being in regional, national, international climate change action plans.

- More information for politicians – political agendas require more flexibility.
- Action: methods to reinforce government commitments to any means of reducing the effects of climate change: measures, completion date, continued commitments.