



Northern Climate ExChange

independent information, shared understanding, action on climate change

2006-07 Annual Report

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Executive Summary

The Northern Climate ExChange (NCE), a program of the Northern Research Institute at Yukon College, was established in February 2000 to provide a credible independent source of information, develop shared understanding and promote action on climate change in northern Canada. Its mandate is to promote increased understanding of, and appropriate responses to climate change in the North. The NCE is designed to serve as a catalyst for multidisciplinary climate change research in the Canadian North, to facilitate the collection and assessment of scientific and traditional knowledge, and to advance a virtual framework for circumpolar climate change research. The NCE administered the northern region of the Climate Change Impacts and Adaptation Research Network (C-CIARN North) to June 2007. The Government of Canada, Government of Yukon and Yukon College have been the primary funders of NCE programs and activities.

On all fronts, 2006-07 was an extremely productive year for the NCE especially considering its reduction in funding by close to 40% over the past fiscal year. NCE's efforts included being an author on the northern chapter of Natural Resource Canada's National Climate Change Assessment and advancing community-based adaptation planning through a week-long workshop in Atlin, BC. Outside of the Yukon/northern BC, we continued to be involved nationally and internationally (in a circumpolar sense) representing the climate change experience and expertise of the Yukon and the North.

The work in Atlin, although outside of Yukon, was appropriate for Northern Climate ExChange because of the overlap between Atlin and southern Yukon, in terms of ecoregions, cultural and social norms, not to mention the headwaters of the Yukon river are in B.C.. Since the effects of climate change do not respect jurisdictional boundaries, NCE felt this was an opportunity for learning and because of this work a number of opportunities to share NCE's experience within the Yukon and across the North have arisen. This work was funded by Indian and Northern Affairs Canada.

Over the past year we have witnessed a measurable increase in the interest in and demand for information on climate change, mitigation and adaptation. We project that this trend will continue into the future. At all times we attempt to deliver as much program as we can with the resources available to us, in order to meet this demand. Unfortunately, 2006-07 saw a massive decrease in our available funding which resulted in the reduction of key staff and programming.



This annual progress report describes work completed by the NCE between April 1, 2006 and March 31, 2007.



NCE Staff & Services

Michael Westlake was the acting coordinator for NCE and C-CIARN during the period that this report covers. Katharine Sandiford provided communications and education outreach to the end of June, 2007. This position is currently not funded.

Jessica Thiessen provides the weekly email updates and Cody Miller provides the web services.

Jen Turner took over the NCE coordinator position in September 2007.

The NCE provides a broad array of services to Yukoners to build knowledge, capacity and networks around the challenge of climate change. In all three areas, the NCE has had a very active year in meeting its mandate.

Building Knowledge

Information Clearinghouse: The NCE responds to individual and organizational requests for information, both by providing information from our own resources and by linking the client with other sources of information. We estimate that we field approximately 1,500 information requests each year and the demand is increasing.

NCE Library: The NCE continues to develop a specialist library focusing on climate change impacts and adaptation. The library is fully catalogued and we loan to all interested people.

Individual Contact: The NCE maintains contact with over a broad range of climate change experts and stakeholders, and facilitates contact between individuals on that client list, of over 80 individuals/organizations, on an almost weekly basis.

Speakers Bureau: The NCE arranges speakers for public or organizational events, either from its own staff or from a roster of climate change experts. In 2006-07, the NCE gave or hosted over 30 talks on climate change topics.

Calendar of Events: The NCE maintains a listing of events related to climate change and the North. Information about these events is made available in a variety of ways, including through a weekly email update to close to 400 contacts, events pages on the NCE and C-CIARN North websites (program ended June 2007), and notification through dedicated newsgroups.

Workshops, Meetings, Training Sessions: The NCE organizes workshops, meetings, and training sessions to bring the climate change community together and facilitate the development of expertise and exchange of information. Last year, the NCE organized a meeting of the Elder's Panel in Climate Change (July 2006) in conjunction with the Council of Yukon First Nations. NCE developed and held a week-long adaptation workshop in



Atlin, BC during the last week of March 2007.

2006-2007 Publications:

Yukon State of Play, September 2006

Preparing for Change: Managing Climate Change Risks in the Atlin Area, September 2007

***Building
Capacity***

Expertise: The NCE provides expertise on climate change and/or helps organizations find the expertise they need to address climate change issues.

Funding: The NCE distributes information about funding sources and provides advice to those preparing proposals for climate change funding.

Technical Support: The NCE provides technical support and advice on policies and programs to governments, funding agencies, boards, and other organizations.



NCE Programs

From 2001 to June 2007, the NCE delivered the northern node of the Canadian Climate Impacts and Adaptation Research Network (C-CIARN North), a Natural Resources Canada program.

The NCE Coordinator was responsible for managing staff, budgets and activities of the northern region of C-CIARN North (program ended June 2007) as well as other projects that come about through specific calls for funding.

C-CIARN North

C-CIARN North, which ran to June 2007, was administered by the NCE in partnership with the Nunavut Research Institute and Ecology North. The objectives of this program were to coordinate and facilitate climate change impacts and adaptation research, disseminate information and research results, build research capacity, maintain a database and web site, provide training opportunities, promote stakeholder involvement, and provide continuity in the effort to develop scholarship and a shared understanding of present-day and future climate impacts, vulnerabilities, risks, resiliency and adaptation.



NCE Partnerships

As an area of interest, climate change can be characterized as developing, dynamic and in demand. Climate change is an issue that crosses jurisdictions, sectors, and subjects. As a result, it is critical to forge partnerships to share information, resources and responsibility. Over the past two years the NCE has been working to strengthen its already wide array of partnerships.

In 2006-07 the NCE held funding agreements with:

- Natural Resources Canada
- Environment Canada
- Indian and Northern Affairs Canada
- Canadian International Development Agency
- Yukon Environment
- Yukon Energy Mines and Resources
- International Polar Year
- Sierra Club
- Arctic North Consulting
- Arctic Youth Network

NCE worked collaboratively on projects with the following organizations or individuals:

- Council of Yukon First Nations / Arctic Athabaskan Council
- Indian and Northern Affairs Canada
- City of Whitehorse
- Yukon College
- Pacific Climate Impacts Consortium
- United Nations Environment Program
- Arctic Climate Impacts Assessment working group
- International Polar Year Secretariat
- Canadian Polar Commission
- C-CIARN British Columbia

Project Highlights

2006-07 was a very strong year for the Northern Climate ExChange especially in light of its reduction in staff and funding. Below are descriptions of some of the many projects from the fiscal year.



Climate Change Communications and Outreach

Due to federal funding reasons, March 31, 2006 marked the end of the Yukon Public Education and Outreach Hub which had been operating since 2001 at the NCE. The four central activities of the Yukon PEO Hub were education, outreach, networking and acting as a clearinghouse. Examples of projects include school visits, community visits, media campaigns, events and public presentations, as well as the coordination of the Community Stewardship Pilot. NCE has had to dramatically scale down its community and outreach efforts because of the funding cuts.

NCE Websites

The NCE website is an interactive, up-to-date site for climate change information relevant to Canada's North. Primarily maintained by the NCE Coordinator with assistance from our web technician, the site contains information on the projects and programs underway at the NCE and throughout the North. Along with information about the NCE, the website provides current climate change news, reports, information, conferences, resources, and funding opportunities. Statistics indicate our site receives more than 500 hits per day.

This year the number of websites we host and maintain has increased. We now have websites for:

NCE	www.taiga.net/nce/
C-CIARN North (to June 2007)	www.taiga.net/c-ciarn-north/
Arctic Climate Impact Assessment	www.taiga.net/acia/
Rapid Landscape Change	www.taiga.net/rapidchange/
Forest Management for SW Yukon	yukon.taiga.net/swyukon/



Preparing for Change: Managing Climate Change Risks in the Atlin Area

Community-based climate change adaptation planning is a field in which the NCE is gradually becoming a niche-expert. Already identified as a leader in northern climate change adaptation and risk assessment, the Atlin project is the first example of an NCE-run community-based adaptation workshop, with 3 more planned 2008-2011.

During the week of March 26th, 2007, three stakeholder working group sessions met to: identify the observed impacts of climate change in Atlin, the vulnerability of the community to changes, the community's capacity to deal with this change, and what tools and frameworks already exist or are needed to cope with these changes. The information shared and collected in the stakeholder working group sessions formed a climate change baseline for the community and source of information that was presented back to the overall community at the weekend workshop for comment and solutions based discussions. In order to stimulate discussions around this at the weekend workshop, we brought in experts to present regional climate models for Atlin, and introduced the concept of "mainstreaming climate change".

A workshop report was prepared and presented to the community in September, 2007. While there are no specific plans for further work in Atlin, NCE has offered to provide support for implementing any of the activities listed in their adaptation plan. A summary of this project and the report can be found at www.taiga.net/nce/initiatives/index.html

The Dorothy Cutting Climate Change Journey

The NCE, in conjunction with the Sierra Club of Canada, was integral in organizing and supporting a seventy-five year old grandmother's journey in July 2006 to the arctic to learn what effect of global warming and the loss of the Polar Ice Cap will have for the People of the North, as well as the people of the entire planet. <http://www.dorothycutting.ca>



Elders Panel on Climate Change

The NCE in collaboration with the Council of Yukon First Nations and Dorothy Cutting, brought together the Elders Panel on Climate Change on July 13, 2006 to discuss current climate issues in the territory.

The Elders Panel on Climate Change first developed in 2002 through a series of workshops. The purpose was to seek direction from Yukon First Nation Elders on processes and protocols for working on climate change, integrating traditional and local knowledge, and documenting observations of climate change impacts and strategies for adaptation. The importance of traditional knowledge has long been recognized; however, the mechanisms to integrate it into scientific research and to use it as a decision-making tool have not been adequately developed. In creating the Elders Panel on Climate Change, a forum is created in which Elders from various communities can pool their knowledge, experience and wisdom on how to move forward on climate change solutions. This may guide climate-change policy development for local, national and international decision makers.

Canadian Climate Change Impacts and Adaptation Assessment

Natural Resources Canada is directing the Canadian Climate Change Impacts and Adaptation Assessment to be completed in late 2007. The Assessment is broken into Canadian regional chapters, one of which is focused on the Territorial North. Similar to the Arctic Climate Impact Assessment, the Canadian Assessment includes consideration of all pertinent existing primary and grey literature on climate change, as well as expert opinion and traditional knowledge whenever possible.

Michael Westlake, coordinator (to August 2007) of the NCE, participated as an author on the Northern chapter of the National Assessment. NCE was also involved in coordinating the review of the chapter by key northerners to ensure that their views were accurately expressed.

National Climate Change Assessment Northern Poster

The Northern Climate ExChange, in collaboration with the other offices of C-CIARN North, designed and developed the northern poster as part of NRCAN's national climate change assessment. This poster will be one of the main outreach products of the Assessment and will be used by groups across the Canada. The main focus of the poster is climate change impacts and adaptation case studies. NRCAN is in the process of finalizing the Assessment prior to releasing the poster.

C-CIARN Legacy Website

The NCE was instrumental in the development and design of the C-CIARN legacy website. With C-CIARN ending in June 2007, this site was designed so that the many products of C-CIARN, such as workshop and conference reports, posters and other communication products, remain accessible to the public.



Yukon State of Play Report

A product of C-CIARN, the state of play report is a document that looks at the state of climate change impacts and adaptation work in the Yukon. It identifies where the gaps with respect to research are, and sets out what works, and what doesn't as far as climate change communications. The report is posted on the NCE website. www.taiga.net/nce/adaptation/index.html

Climate Change Research Centre of Excellence

In the fall of 2006, The Government of Yukon announced the establishment of a Climate Change Research Centre of Excellence at Yukon College. The NCE has been actively working with Yukon College on defining what this Centre will look like. As part of this process, the NCE and Yukon College have had meetings with the University of Alberta, the Canadian Polar Commission, and other interest groups. The NCE is likely to be integral to this Centre.

International Polar Year Science Review

The International Polar Year is a large international scientific programme focused on the Arctic and the Antarctic from March 2007 to March 2009. In September 2006, the NCE was involved in the review of over 130, very technical and extensive, science proposals for Canadian IPY projects. This science and research program will build on and support existing programs, networks and facilities to focus on two important challenges for Canada's northern regions:

- Climate change impacts and adaptation; and
- Health and well-being of northern communities

Arctic Climate Impact Assessment Outreach

The Arctic Climate Impact Assessment (ACIA) was released in 2004. In support of the ACIA policy goals to disseminate the results to circumpolar communities, the NCE promotes the ACIA message through a number of ways. We reproduce and distribute the ACIA DVDs (with permission from CICERO in Norway). Due to a lack of ACIA web presence, the NCE developed an informative outreach website with encouragement from the ACIA steering committee chair. All opportunities are taken to incorporate the ACIA graphics and key messages into public presentations.



Financial Report

The Northern Climate Exchange received its primary funding from four contribution agreements during the 2006-07 fiscal year. These contribution agreements are held by the Yukon College.

These agreements are with:

- Natural Resources Canada – Impacts and Adaptation Directorate,
- Government of Yukon's Department of Environment,
- Indian and Northern Affairs Canada's, Aboriginal and Northern Community Action Program
- Government of Yukon's Department of Energy Mines and Resources

There were also a number of travel support and smaller project-related contracts, including:

- Canadian International Development Agency
- International Polar Year - Travel and accommodation support for IPY Science review
- Sierra Club
- Arctic Youth Network
-

In total NCE cash and in-kind revenues were \$398,823.35 for 2006-07 (with in-kind making up 43% of the total). In total, NCE cash expenditures were \$227,211.39.

The following tables summarize NCE revenues and expenditures received during this period from April 1, 2006 to March 31, 2007.

Detailed financial statements are available upon request. It must be noted that the summary is not an audited financial statement and is extracted from the Yukon College financial records.



Table 1
NCE 2005-06 Cash Revenues Summary

The following table summarizes cash revenues for the NCE between April 1, 2005 and March 31, 2006.

Funding Source	Description	Amount
Government of Yukon Department of Environment	Core funding for NCE activities, including C-CIARN North and the Yukon PEO Hub	\$75,000.00
Natural Resources Canada	C-CIARN North operations in Yukon	\$56,250.00 ¹
Indian and Northern Affairs Canada	Funds in support of <i>Preparing for Change: Managing climate Change Risks in the Atlin Area</i>	\$32,285.00
Sierra Club of Canada	Elder's Panel on Climate Change	\$4,000.00
Government of Yukon Department of Energy Mines & Resources	Core Funding for NCE activities	\$50,000.00
Miscellaneous	e.g. Travel Assistance	\$11,288.38
Total Revenue (Cash)		\$228,823.38

Note: The total funding amount is \$75k but the C-CIARN program was reinstated late and as such ran until June 30, 2007.



Table 2

NCE 2005-06 In-Kind Revenues Summary

The table below summarizes in-kind revenues for the NCE between April 1, 2005 and March 31, 2006.

Funding Source	Description	Amount
Yukon College	Administrative support	\$60,000.00
Yukon College	Office space	\$75,000.00
Arctic Borderlands Ecological Knowledge Co-op	Server space	\$5,000.00
Canadian Polar Commission	CPIN server space, software, and web support	\$1,000.00
Environment Canada Canadian Wildlife Service (Whitehorse)	Advice and expertise, web support, specialized printing services	\$2,500.00
University of Ottawa	C-CIARN North Science Advisor Peter Johnson (advice and expertise)	\$5,000.00
NCE Management Committee, and NCE Advisors	Advice and expertise	\$20,000.00
Counsel of Yukon First Nations	Staff time, venue, advice and expertise pertaining to the convening of the Elder's Panel on Climate Change	\$1,500.00
Total Revenue (In-Kind)		\$170,000.00



Table 3 NCE Core Expense Summary

The following table summarizes expenses associated with the NCE core activities between April 1, 2006 and March 31, 2007.

Project Item	Expense
Salaries	\$25,651.57
Admin	\$7,309.35
Total Expenditures	\$32,960.92

Table 4 Climate Change Communications and Outreach Expense Summary

The following table summarizes expenses associated with public education and outreach activities between April 1, 2006 and March 31, 2007. A detailed report is available upon request.

Project Item	Expense
Salaries	\$91,238.58
Non-labour	\$40,348.66
Total Expenditures	\$131,587.24



Table 5

C-CIARN North Expense Summary

The following table summarizes NCE expenses associated with the Canadian Climate Impacts and Adaptation Research Network – Yukon Region between April 1, 2006 and March 31, 2007. A detailed report for C-CIARN Yukon is available upon request.

Project Item	Expense
Salaries	\$57,195.35
Non-Labour	\$5,467.88
Total Expenditures	\$62,663.23