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Climate Change and Health

Up North on Climate Conference
April 25, 2018

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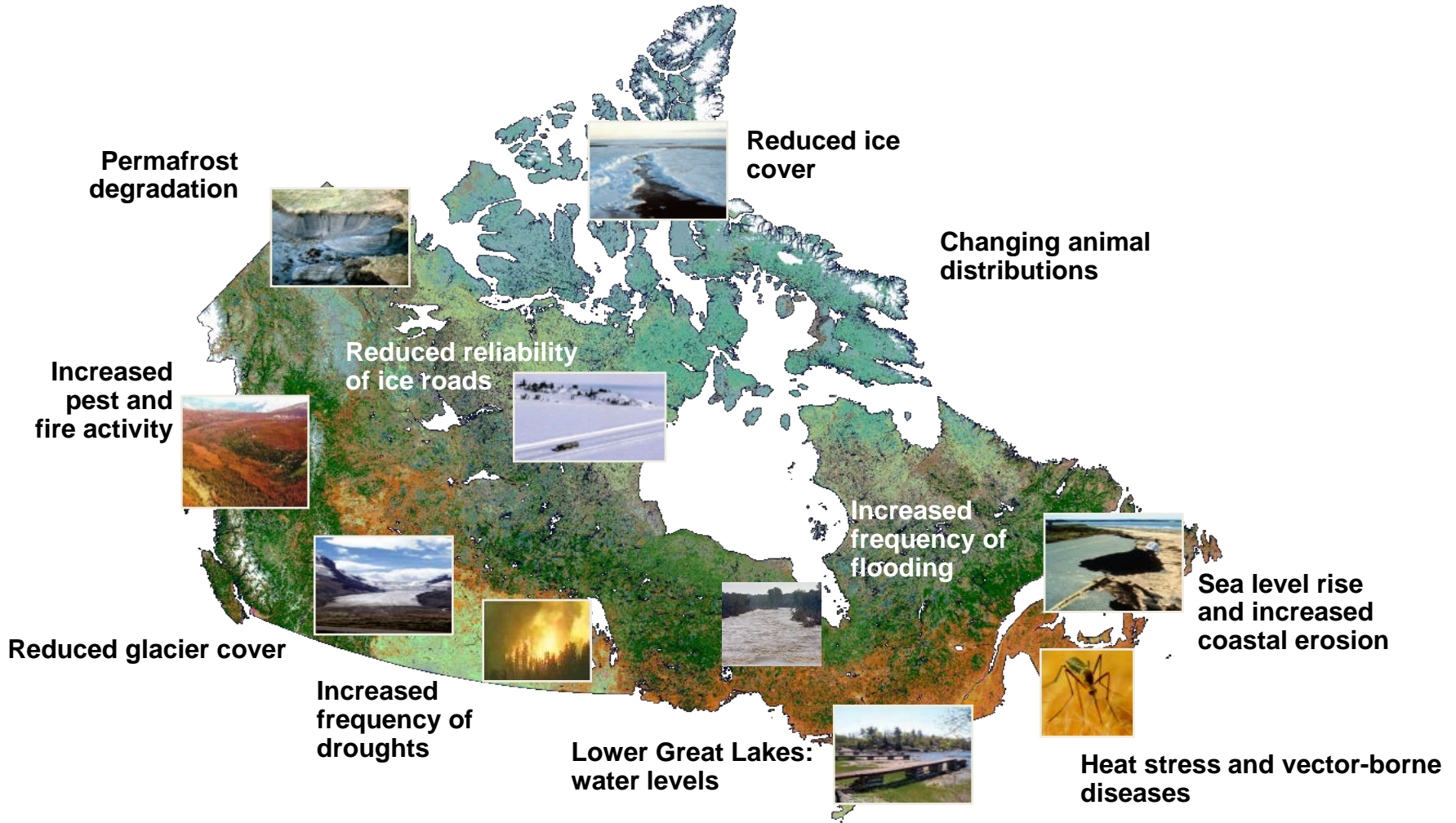
Canada

Supporting First Nations
in climate change adaptation

Appuyer les Premières nations dans
l'adaptation au changement climatique



Climate Change Impacts in Canada



What can we do?

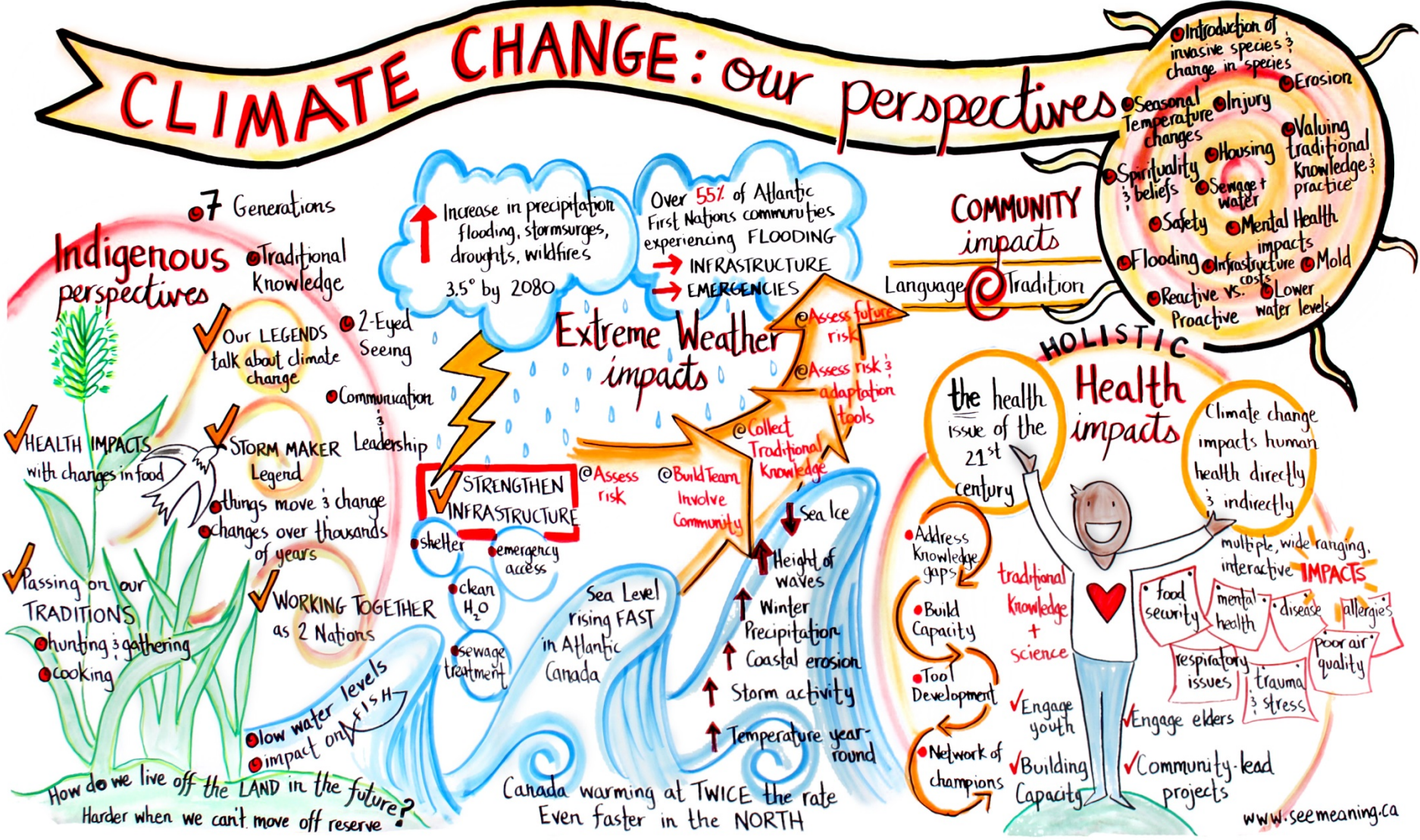
“Tackling climate change could be the greatest global health opportunity of the 21st century”

Lancet Report 2015

<https://www.youtube.com/watch?v=PTpLPRwgY38>

What First Nations and Inuit Communities are Saying

CLIMATE CHANGE: our perspectives



What Do First Nations Need?



A word cloud of needs for First Nations, with the largest and most prominent words being 'CLIMATE CHANGE MATERIALS' and 'FINANCIAL SUPPORT'. Other significant words include 'DATA GATHERING AND SHARING', 'REGIONAL/TRIBAL/LOCAL FORUMS', and 'EDUCATIONAL TOOLS'. The words are arranged in a roughly rectangular shape, with smaller text surrounding the larger central words.

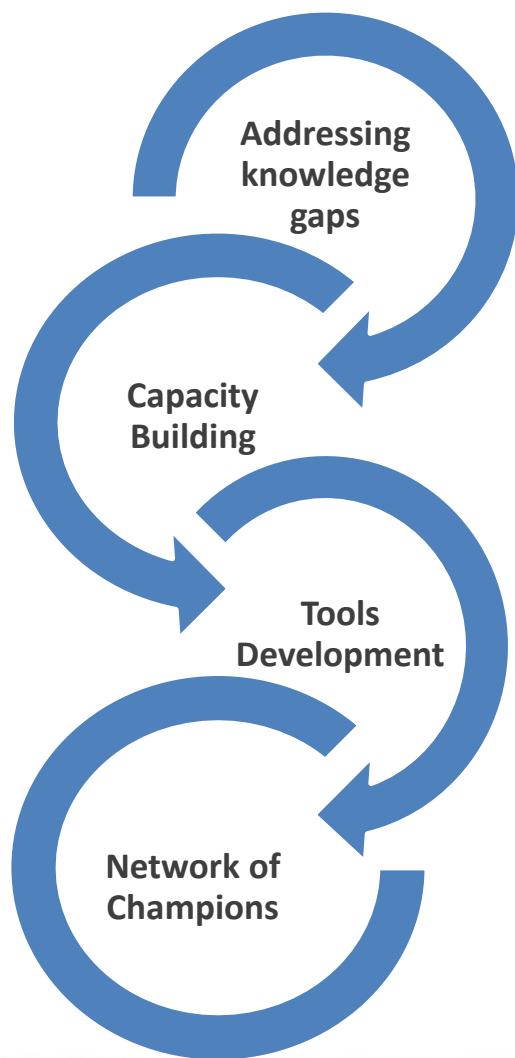
CLIMATE CHANGE MATERIALS
FINANCIAL SUPPORT
DATA GATHERING AND SHARING
REGIONAL/TRIBAL/LOCAL FORUMS
EDUCATIONAL TOOLS

Support from experts
Engage other stakeholders
Involve chief and council
Information on adaptation
Better communication
Develop emergency plans
Address food security
Involve schools
Traditional knowledge and teachings
Adopt energy efficient technology
Best practices

“As Indigenous Peoples
we have always done research,
always searched for understanding,
ways of being and knowing the world
around us in order to survive,
we just didn’t call it research”

Former Chief Norman Bone
Keeseekoowenin First Nation

Climate Change and Health Adaptation Program (CCHAP)



- CCHAP began in 2008 to support northern First Nations and Inuit communities in adapting to the health impacts of climate change
- CCHAP strengthens communities' capacity to integrate traditional/local knowledge and science streams, enabling communities to take immediate adaptation actions on the foundation of better knowledge

For community by community

CCHAP South

- Up to \$100,000 annually for community-based research and action projects
- All southern First Nations communities are eligible for funding
- Individuals, Band Councils, Tribal Councils and Associations, and governments of self-governing Indigenous communities.
- Annual call for proposals
- Projects reviewed First Nations Selection Committee



Key Themes

- Food security
- Adaptation Planning
- Access to Land
- Knowledge Sharing/Education
- Mental Health
- Traditional Medicine
- Water Quality
- Travel Safety
- Emergency Management



Indigenous people lead adaptations

Tim Soule and Trevor Arneak take water samples to test for bacteriological contamination in a stream in Nunavut.

Indigenous peoples have a long history of adapting to changes around them. Climate change is impacting the quality of water in Pond Inlet. Using local knowledge to inform sampling, the community is testing their water sources and sharing this information with Elders and other residents. This enables people to make decisions to improve their own health. The community is sharing lessons learned with others as they adapt to the impacts of climate change.

Les populations autochtones mènent les adaptations

Tim Soule et Trevor Arneak prélèvent des échantillons d'eau pour tester le niveau de contamination bactériologique d'un ruisseau au Nunavut.

Les peuples autochtones s'adaptent aux changements qui les entourent depuis très longtemps. Le changement climatique a un effet sur la qualité de l'eau à Pond Inlet. En utilisant des connaissances locales pour définir la technique d'échantillonnage, les habitants testent leurs sources d'eau et partagent cette information avec leurs aînés et les autres habitants. Cela permet aux habitants de prendre des décisions pour améliorer leur santé. La communauté partage leur savoir-faire avec d'autres personnes à mesure qu'ils s'adaptent aux conséquences du changement climatique.



The Centre for Indigenous Environmental Resources (CIER) in partnership with Health Canada's Climate Change and Health Adaptation Program (CCHAP) has created a new website:

ClimateTelling.info



- ✓ Help to minimize the health risks due to a changing climate.
- ✓ Learn about past Indigenous driven climate change and health adaptation projects.
- ✓ Share information with others.
- ✓ Find out about future climate change events and funding opportunities.
- ✓ Link to a network of climate change researchers and experts.
- ✓ Exchange tools and approaches with other Indigenous communities.

Past and current projects:

- | | |
|-------------------------------|------------------------|
| ○ Food Security | ○ Mental Health |
| ○ Adaptation Planning | ○ Traditional Medicine |
| ○ Access to Land | ○ Water Quality |
| ○ Knowledge Sharing/Education | ○ Travel Safety |

If you have any questions or would like to post something, please contact CCHAP at cchp-pccas@hc-sc.gc.ca



Health Canada logo and slogan: Your health and safety... our priority. Votre santé et votre sécurité... notre priorité.



The Climate Change and Health Adaptation Program presents:

Northern Voices on Climate Change Film Festival

Dates: Tuesdays July 25, August 15, August 29, September 12
Time: 11:45am - 1:00pm
Location of Event: Banting Theatre
Building: Sir Frederick G. Banting Building
Tunney's Pasture

A special opportunity to showcase some of the program's highlights since 2008. The films have been wholly developed by First Nation and Inuit communities, and feature a variety of issues related to Climate Change, namely food security, land erosion and land use, knowledge sharing, traditional medicine, ice monitoring, water quality, and more.

Gap Analysis of Health and Climate Change Adaptation in Northern Ontario

Summary of Stakeholder Perspectives on the Impacts of Climate Change, Adaptation Strategies, and Knowledge Gaps in Northern Ontario

Prepared by: Jasmin Bhawra, Policy Analyst, October 2017

Cover Photo Credit: P199 ©1996

Contact Information: cchp-pccas@hc-sc.gc.ca



ARE YOU CONCERNED with how climate change is affecting the health of your community or region?
 ARE YOU INTERESTED in conducting your own research studies?

CALL FOR PROPOSALS 2017-2018:

The Climate Change and Health Adaptation Program for First Nations South of 60°N is accepting proposals for the 2018-2019 fiscal year.

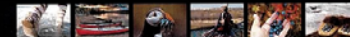
APPLICATION DEADLINES:
**MONDAY
 OCTOBER 30TH,
 2017**

Health Canada's new Climate Change and Health Adaptation Program for First Nations South of 60°N is supporting community-based and/or regional based research projects to help minimize health risks caused by climate change. This program creates opportunities for First Nations South of the 60th parallel to engage their communities and/or regions in climate change discussions, monitoring of activities, leading and conducting research and assessing vulnerabilities in order to develop local action plans to adapt to a changing climate.

For more information and to obtain a Funding Application Guide, Contact - CCHAP-PCCAS@hc-sc.gc.ca



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For more information, contact: deanna.matthews@canada.ca/613-210-0645

Projects in Ontario in 2017-2018, 2018-2019

- Preparing Today for Our Health Tomorrow – *Pays Plat First Nation*
- Responding to Climate Change and Food Insecurity through Adaptive Land Based Food Strategies in a Remote Northern First Nation – *Kasabonika Lake First Nation*
- The Living, Learning Leading Garden Project – *MoCreebec Eeyoud*
- Climate Change and Food Security in Subarctic Canada: Adaptation through the Harmonization of Indigenous Harvesting Pursuits and Agroforestry Activities to Form a Sustainable Import-substitution Strategy – *Fort Albany First Nation*
- Addressing Health Impacts and Vulnerabilities within First Nation Communities - A Collaborative Approach – *OCCLAR and Cambium Aboriginal*

Other Types of Projects Funded

Health Implications of Climate Change to Black River First Nation – *Black River First Nation, Manitoba*



All-hazards Emergency Preparedness in Mi'kmaw Communities in Mainland Nova Scotia – *Confederacy of Mainland Mi'kmaw, Nova Scotia*

Saddle Lake Cree Nation Tipi Model Approach to Climate Change Adaptation – *Saddle Lake First Nation, Alberta*



Adaptation Planning

Community: Pays Plat First Nation

Location: Ontario

Title: Pays Plat First Nation – Preparing Today For Our Health Tomorrow

Funding amount: \$41,613, \$70,279

Project Year: 2017-2018, 2018-2019

Objectives:

1. Educate and inform the community about climate change and how it affects our health. This information will be provided by workshops, updates on Pays Plats webpage and in person if requested.
2. Gather knowledge from elders, youth, health workers and other community members. This knowledge will be carefully stored in appropriate databases and ArcGIS.
3. Prioritize vulnerabilities, key impacts and health risks from the results of the workshops.
4. Conduct Band policy review to find opportunities to mainstream climate change into policy.
5. Develop an adaptation plan

Food Security

Community: Cold Lake First Nation

Location: Alberta

Title: Promoting Resilience and Self Sufficiency Through the Transfer of Traditional Knowledge in Cold Lake First Nations

Funding amount: \$86,169

Project Year: 2017-2018

Objectives: This project is a community driven initiative; CLFN leadership and elders have continually communicated to the CLFN Consultation Department the need for increased programming that utilizes Traditional Knowledge exchange between elders and youth. Specifically, a number of elders have voiced the need for funding to be allocated towards expanding the use of Traditional Knowledge in fishing and agriculture. In addition, community members have tried in the past to operate community gardens using modern horticulture techniques, but have had little success due to a lack of organization and expert guidance. Therefore, there is widespread encouragement from leadership, elders and community members in general to develop programming that meet these objectives.

Mental Health

Community: Tobique First Nation

Location: New Brunswick

Title: Cross-Generational Teaching to Promote Physical and Mental Health in Tobique First Nation

Funding amount: \$79,400, \$75,500

Project Year: 2017-2018, 2018-2019

Objectives: The project includes cross-generational teaching from land users to the youth for the transmission of traditional knowledge. Its purpose is to reconnect the youth culturally and spiritually to the land through fishing, hunting, gathering and ceremony. This will introduce the youth to viable harvesting areas within Maliseet territory that have yet to be adversely impacted by development or climate change. It will also help the Maliseet to determine extents of impacts from climate change and industry on traditional territory and help define effects to the Maliseet (e.g., ability to exercise Aboriginal and treaty rights).

Mental Health

Community: Selkirk First Nation

Location: Pelly Crossing, Yukon

Title: Keeping Our Traditions for the Health and Wellbeing of Future Selkirk First Nation Generations: "What do we do at the fish camp when there is no fish?"

Funding amount: \$97,400

Project Year: 2015-2016

Objectives: This project aimed to develop a viable community-based adaptation strategy for keeping traditions alive, in particular, in continuing fish camps even when there are no fish in the rivers, and to ensure the health and mental wellbeing of youth people and future generations.

Outcomes: A Fish Camp guide was created to facilitate conversations around activities to do at the fish camps, and to connect youth to the land by enabling the sharing of traditional knowledge and skills at the camps.

Knowledge Sharing/Education

Community: Clyde River

Location: Nunavut

Title: The Meaning of Ice: A special book project to report Inuit-led research on sea ice, sea ice use, and sea ice change in three Arctic communities

Funding amount: \$183,627.40

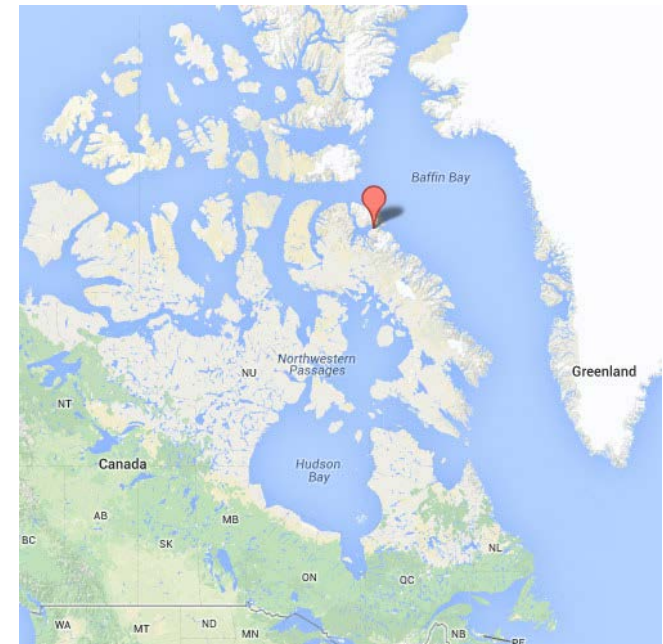
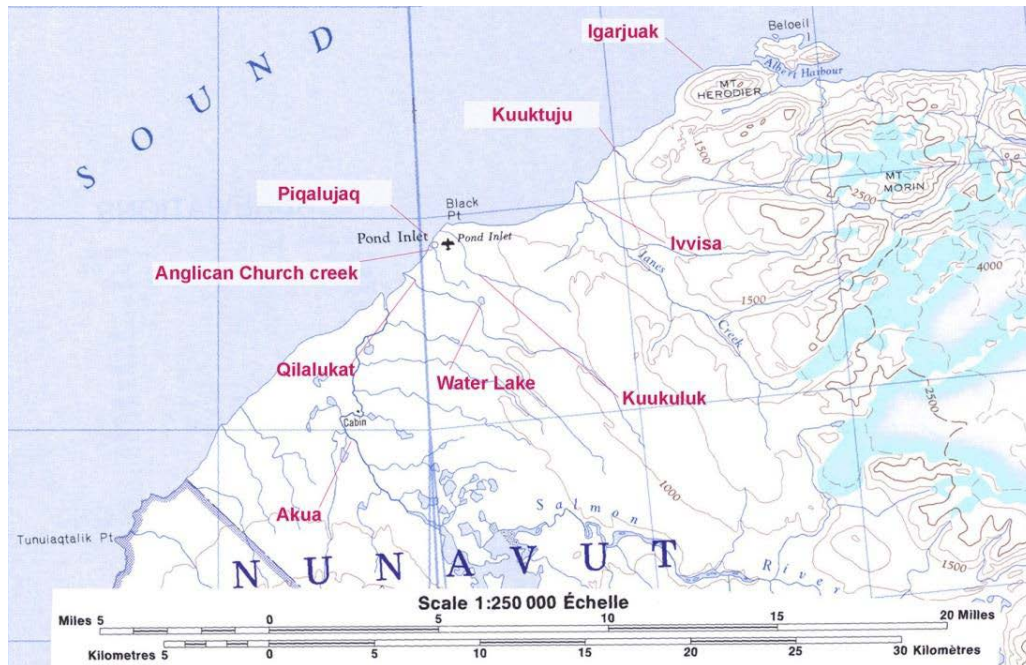
Project Year: 2008-2009

Objectives: This was a unique project conducted during the International Polar Year that brought Inuit from three Arctic countries together with climatologists, geographers, and a sea ice physicist to conduct research on sea ice.

Outcomes: The book, *The Meaning of Ice* was written together by hunters, Elders, whalers, and researchers, and weaves together the story of human relationships with sea ice including sea ice use, impacts of environmental changes, personal stories, and emotional connections.

Pond Inlet – Water Quality

- Objectives included:
 - Analyzing microbial water quality
 - Understanding behavior around water use
 - Exploring the relationship between climate change, water quality and human health, including how weather events affect water quality



Pond Inlet – Research Team

Principal Researchers

- Tim Anaviapik-Soucie, Project Leader, Pond Inlet
- Vincent L'Hérault, Principal Research Mentor, ARCTICConnexion

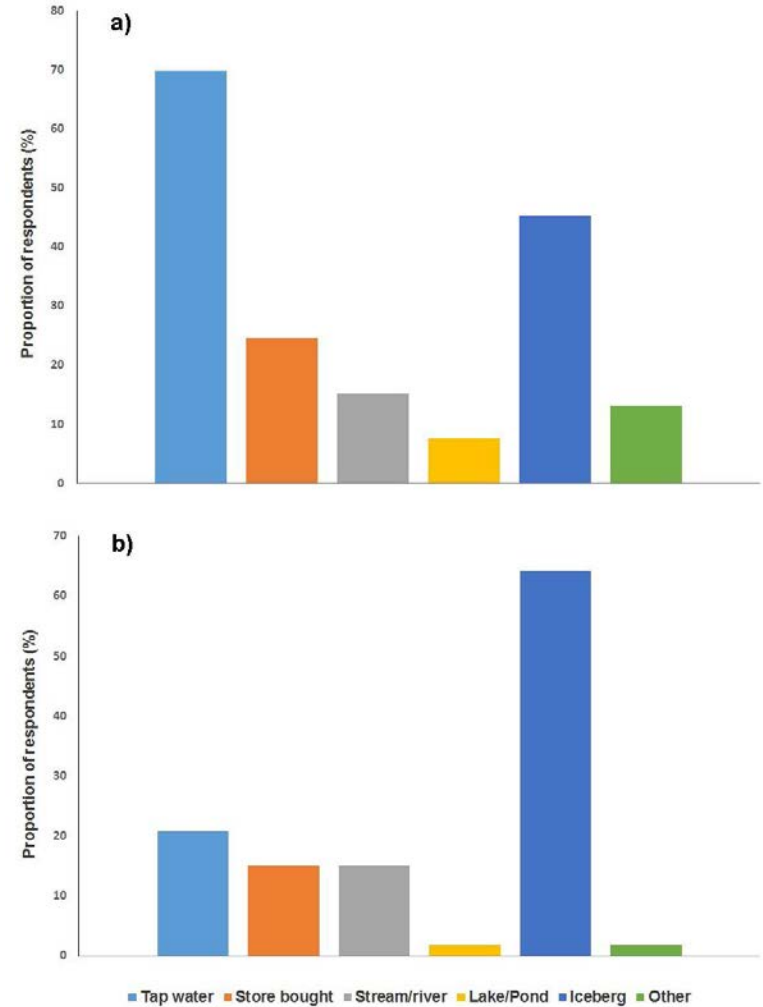
In partnership with:

- Trevor Arreak & Emmanuel Maktar, Research Assistants, Pond Inlet
- Michael Milton & Jonathan Pitseolak, Research Trainees, Pond Inlet
- Jamal Shirley, Regional Research Mentor, Nunavut Research Institute
- Marie-Hélène Truchon, Statistic/Curriculum Mentor, ARCTICConnection
- Rob Jamieson, Specialist Research Mentor, Dalhousie University
- Sherilee Harper, Specialist Research Mentor, University of Guelph
- Ludovic Jolicoeur, Specialist Research Mentor, Université du Québec à Rimouski

Pond Inlet – Year 1 (2014-2015)



Results of survey regarding water source used (a) vs water source preferred (b)



Pond Inlet – Year 2 (2015-2016)



Pond Inlet – Results

- Capacity Building in Community
 - Increased community capacity to address climate change impacts
- Developed a Water Quality Course Curriculum
 - Classroom and on-the-land training for students in water quality monitoring
- Partnerships with other Arctic communities
 - Supporting similar work in Arviat, Nunavut
- 2014 Excellence in Water Stewardship Award by the Canadian Council of the Federation

“We wanted to develop a project that would provide us with the opportunity to conduct serious research and answer our community preoccupations in a way that would build our skills and knowledge for the benefit of our community.

We found out that the best way to achieve this goal was to lead the research ourselves and request the help of Vincent L’Herault and other mentors to provide guidance.”

Pond Inlet, Phase I Final Project Report



Lessons learned from the CCHAP

The CCHAP represents a significant Canadian contribution to the global effort by Indigenous communities to adapt to climate change.

- Adaptation increasingly requires a multidisciplinary approach
- Importance of integration of scientific and Indigenous Knowledge
- Community-led research moves quickly to action



Addressing Mental Health Impacts in Indigenous Communities Due to Evacuations Caused by Extreme Weather Events

Targeted Federal Climate Change Science Plan

There are 5 themes:

1. Communicating and Delivering Climate Change Science Knowledge
2. Carbon Cycles and Sinks
3. Water
- 4. Resilient Regions and Communities**
5. Human Dimension of Climate Change

Theme 4: Resilient Indigenous Communities



Image: Jonathon Zettel Siksika Nation (CTVNews 2013)

“Climate change affects individuals, groups and sectors differently depending on their vulnerability, exposure to risk and capacity to be resilient...inequalities influence local coping and adaptive capacity”

Source: Targeted Federal Science Plan (2018-Draft)

What are we doing?

- Part of a 4 year plan
- Literature review
- Conversations and interviews with FNIHB headquarters and regional staff
 - Led to discussions with provincial partners, NGOs, and researchers
- Moving forward with continuous engagement



Image: Judy Klassen 2017 Wasagamack First Nation
(National Observer 2017)

Differences amongst the provinces



Final Thoughts

For Community by Community

“Programs such as this one have the potential to support democratic development in Northern communities. They can support the development of community knowledge institutions, and build a legacy of skills and expertise. This should be acknowledged and supported as are similar functions in other parts of Canadian society.”

“While a single federal program of limited duration will have circumscribed impact,....this single feature of the CCHAP was impressively empowering – an example of a federal program that really could make a contribution to decolonization.”

Source: CCHAP Synthesis Report and Impact Analysis: Abele and Gladstone, 2017



Next Call for Proposals: August 2018

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