

2.8 Climate Change in Northern Québec and Nunavik: Access to Territory and Resources

Summary

Project Leader(s)

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Traditional and scientific knowledge are used to find solutions to adapt to climate variability in Northern Quebec communities. This research project is based on interviews with elders and active hunters, ice and snow monitoring activities by local researchers and supporting analysis of local climate data. The project goal is to provide tools that will help northern communities in coping with the climate changes that they are facing regarding to traditional trail use and safety (with particular attention being given to ice trails). These local trails are extremely important for Inuit communities providing the access to critical natural resources throughout the year and preserving the traditional style life. The project objectives are to: • Document climate change impacts on the trail networks in northern communities that have reported climate related changes; • Develop and conduct a community-based monitoring strategy for ice safety and use in Nunavik communities; • Document individuals' and communities' responses / adaptations to changes in light of any impacts on the access to resources or impacts to human safety; cooperatively develop strategies with communities to adapt to these changes; • Evaluate the potential impacts of climate change on access to land and resources by filling the gap between the coarse temporal and spatial scales of climate scenarios and the local scale at which subsistence-based activities are conducted. Results to date show that Kangiqsujuaq, Umiujaq, and Kangiqsujuaq are reporting a medium to medium-high level of impact on trail systems associated with environmental change. The residents from these communities are already using new trails during the winter to adapt to increasingly risky areas or inaccessible trails. In summer they report using water routes closer to the shore to mitigate the hazards of less predictable climate conditions on the sea as well. The ice monitoring carried out by local researchers has supported the identification of quantitative climate indicators with the help of Ouranos that are both useful to assess ice thickness during the winter and also representative of Inuit observations of ice conditions and safety. The development / identification of such indicators will help better link climate scenario data with local conditions relevant to community activities.

People

Network Investigators

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Partners

IPY Federal Program Office
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Nasivvik Centre for Inuit Health and Changing Environments
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Kativik Regional Government
Ouranos
Natural Resources Canada - Climate Change Impacts and Adaptation Program

Publications

Articles Published in Refereed Publications

Tremblay, M., Furgal, C., et al., 2006, Climate change in Nunavik: Adaptation strategies from community-based research., Arctic, 1, Accepted

Other Refereed Contributions

Tremblay, M., Furgal, C., Lafortune, V., Larrivée, C., Savard, J.P., Barrett, M., Annanack, T., Einish, N., Tookalook, P., and B. Etidloie. , 2006, Climate change, communities and ice: Bringing together traditional and scientific knowledge for adaptation in the North, , R Riewe and J Oakes (Eds), Climate Change: Linking Traditional and Scientific Knowledge. , 1, Published

Non-Refereed Contributions

Tremblay, M., Furgal, C., Tookalook, P., Annanack, T., E., Qiisik, Einish, N., Swappie, N., Angiyou, M., Larrivée, C., Allard, M., Savard, J.-P. and Barrett, M. , 2006, Les changements climatiques au Nunavik: Un projet communautaire intégré pour développer des stratégies d'adaptation pour l'accès au territoire et aux ressources. , 2e Scientific Symposium of Ouranos. , 1, Published

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Tremblay, M., Furgal, C., Annanack, T. et Barrett, M., 2007, Climate Changes in Nunavik: Northern strategies for a safe access to territory and resources, 2007 ArcticNet Annual Conference Proceedings, 1, Published

Specialized Publications

Tremblay, M., Furgal, C., Larrivée, C., Annanack, T., Einish, N., Swappie, N., Tookalook, P., Angiyou, E., Qiisik, M., Savard, J.-P., Allard, M., Barrett, M. et les communautés de Kangiqsujaq, Akulivik, Ivujivik, Umiujaq, Kangisualujjuaq et Kawawachikamach, 2006, Changements climatiques au Nunavik: Accès au territoire et aux ressources, Rapport final. Programme sur les impacts et l'adaptation liés aux changements climatiques. Ressources Naturelles Canada, 1, Accepted

Tremblay, M. and Furgal, C., 2008, Les changements climatiques au Nunavik et au Nord du Québec: L'accès au territoire et aux ressources., Rapport final. Initiatives des écosystème nordiques. Environnement Canada, 1, Published