

Understanding the science-policy interface for enhanced Arctic climate impacts and adaptation decision-making

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INTRODUCTION

Ecological change, economic strain, cultural transformation and socio-political factors are currently key sources of stress on Arctic Indigenous peoples. It is argued that the best available information, including both science and Indigenous Knowledge (IK), must be used in generating policies and making decisions about such critical issues as climate change impacts and adaptation in the circumpolar north to ensure that these decisions are best suited for and applicable to these regions and residents. This project aims to investigate the Arctic policy and decision making landscape to determine how Arctic science currently contributes, or may best contribute in the future to informing policies and actions on climate change impacts and adaptation.

OBJECTIVES

- Assess the current and potential impact of ArcticNet (and broader Arctic) science in informing policy development
- Review the current Arctic policy landscape and status of scientific and IK in regard to key climate issues to identify gaps and information or policy needs
- Examine the science policy interface (models and processes see Figs 1,2) to make recommendations for improved information exchange between scientists and decision-makers
- Identify the information needs of decision makers and leaders to assist in the development of policies, strategies and approaches to Arctic regional, or national decision making on climate change issues
- Determine how ArcticNet-generated information can be best integrated into policy decision-making processes
- Develop a model for incorporating science-policy linkages across different scales of organization based on ecological hierarchy theory and other models for organizing effective knowledge translation

METHODS

Literature Search (documenting the policy landscape)

Goal: Identify key policy and science information linkages and gaps

- Review and summarize main conclusions of ArcticNet and other relevant Arctic research to date of relevance to key Arctic policy issues
- Review documentation describing existing Arctic policy landscape for key issues

SAMPLE FRAMEWORKS FOR UNDERSTANDING THE SCIENCE-POLICY INTERFACE

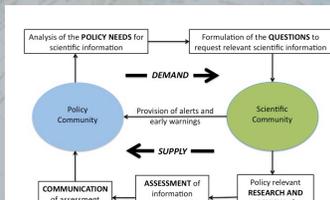


Figure 1. Relationship between science and policy communities for assessment generation

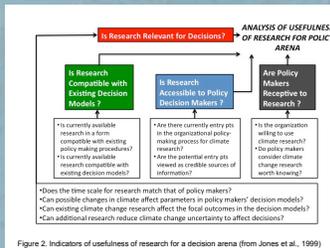


Figure 2. Indicators of usefulness of research for a decision arena (from Jones et al., 1999)

METHODS (cont'd)

Assessment of Current and Potential Links and Impacts of Arctic science to Inuit and other Indigenous groups', Northerners' and Canada's Needs (connection between ArcticNet science and current policy landscape)

Goal: Understand the relationship between existing science and IK products and decisions / policies

- Conduct discourse analysis of semi-structured interviews to develop 'metrics or indicators of response' between science and policy / decision making
- Use metrics and indicators to examine source documentation (scientific publications, newspaper articles, media press releases from all stakeholders, Parliamentary Hansard transcripts etc) to identify the influence of various actors and sources of information in the communication of ArcticNet and other key Arctic science
- Analyse key text materials (e.g. press releases, newspaper articles etc) to identify cases when communicators (e.g. journalists and others) are strongly influenced by specific documentation

METHODS (cont'd)

Key Informant Interviews (assessing the policy landscape)

Goal: Identify and understand the critical steps in the knowledge translation process

- Conduct semi-structured interviews to understand the processes of knowledge transfer between researchers, communities, sponsors, media, Indigenous organizations, federal and territorial governments, and international collaborators
- Develop metrics to understand the ways in which ArcticNet science (and other relevant Arctic research) has been translated into / or impacted the development of key emerging and existing policies

Convene Workshops/Meetings (analyzing the interface and develop recommendations)

Goal: Bring experts together to discuss and develop recommendations on methods for enhanced science and IK uptake in policy processes of relevance to ArcticNet

- Host strategic policy roundtable at the 2010 ArcticNet Annual General Science meeting to develop preliminary recommendations and explore the IRIS policy influences, gaps and recommendations
- Convene meeting on Inuit and Arctic Research at ICC General Assembly, Nuuk, 2010
- Conduct case study analyses (user needs and program design) of ArcticNet IRIS workshops and processes
- Convene strategic workshop(s) to review Government platform documentation (domestic, Arctic Strategy, S & T Policy, Foreign Policy) and develop process to influence federal positions and statements using Arctic and ArcticNet science

EXPECTED RESULTS

This research will contribute to our present knowledge on how to improve the use, translation and transfer of scientific research results and IK into sound policy. The conclusions from this project will support ArcticNet in addressing the most effective ways to use and translate ArcticNet research results on urgent issues such as climate change into "action" or decision-making at the local, region, national and international levels.

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