Canadian Science Policy Conference Summary
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Summary by:
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The Canadian Science Policy Conference (CSPC) brought together multi-sectoral leaders in science policy and communication to discuss pressing issues in the field with a focus on communication, Indigenous knowledge, capacity building for the next generation, and new directions for science in the federal government.

The full conference program is available at http://cspc2018.ca.

THEME: Inclusion of Indigenous knowledge in science policy and research
Key speakers
Petseolak Pfiefer, Consultant on inclusion of Indigenous knowledge, Inuit, MA candidate at Carleton.
Gabrielle Snowboy, President, Nihtaauchin Chisasibi Center of Sustainability, Cree.
Brownyn Hancock, Assistant Vice President of Research Development, Yukon College
Rachel Olson, Director, Firelight Group

Key messages

- Recognizing Indigenous knowledge means recognizing the laws and cultural norms inherent in the creation and transmission of that knowledge, much of which is contained within Indigenous languages (for example, the Inuktitut word for 'animals' mean 'those who are living'). It is transmitted generationally, usually orally, and is cumulative. Local and temporally deep.
- Indigenous knowledge includes a holistic view where knowledge is not understood as discrete components, but an intimate interconnection of knowledge, language, family.
- The Western attitude towards arctic research has been historically colonial and exploitative and the enterprise of research not resulted in better socioeconomic outcomes for Inuit communities.
- Research must be co-designed and co-developed with Indigenous communities
- To accomplish knowledge transfer, relationship building is key, and the settler communities must provide $$ for building face-to-face relationships over time without expectation of particular outcomes.

- When entering into relationship with Indigenous person and communities, settler researchers need to do the preparatory work: 1) competency in FN history and culture; 2) understanding what decision-making is in an FN context, and 3) understanding the fraught history between researchers and these communities. It is the responsibility of settler organizations to arrange for sensitivity training and to find ways to give back to the community (even small ways, like preparing a communal meal).
- Settlers should expect pushback due to deep-seated (and justified) resentments.
- It is important for academia and government to recognize the different timelines involved, as well as to change policies around credit in publishing and presenting research.
- Relationship protocols must be part of the ethics of working with Indigenous communities and this relationship must be reciprocal.
- Important to count in outcomes local engagement including training of Indigenous HQP and empowering Indigenous researchers to lead.
- Inter-agency coordination is essential to limit consultation fatigue and communities are very frustrated with this

THEME: Science informing government policy and policy informing science

Key speakers

Necole Sommesell, Manager, Research Manitoba
Donna Kirkwood, Chief Scientist, NRCan
Sarah Gallagher, Chief Science Advisor, Canadian Space Agency
Dan Wagner, Chief Science Advisor, NRC
Anthony Morgan, Founder, Science Everyhwere

Key messages

- Divisions between researchers and policy-makers occur because of: 1) different time scales for the production and dissemination of information as compared to policy needs, 2) policy-makers need to include values and ideologies whereas researchers tend to ignore this; 3) different perceptions of uncertainty.
- Key competencies for bridging this gap include understanding both policy and science, communicating scientific knowledge, understanding of quality of knowledge and facts, and ability to provide advice. Attitudes are a fundamental baseline for developing competencies. Training must be provided for these beyond just research work, and would be good to include in university curricula.
- An incentive structure change in academia is needed to encourage collaborative work
- When policy people say ‘science policy’ they mean policy to support science (research funding, etc.) whereas researchers typically mean evidence to support policy.
- Multi-disciplinary teams need to be established with researchers and policymakers in sustained relationship with each other and understanding of each others’ needs (e.g. how to write a brief, how long a research process takes).
- Best practices for integrating sci and poli to achieve project goals include: 1) undertake a project with proof of concept; 2) capacity building internally on both the research and policy side in tandem with a comms plan; 3) engage stakeholders from the outset; 4) disseminate information

appropriately for the audience; 5) have a champion who bridges both worlds and speaks both language.

- Scientific hubris is an impediment to collaboration (scientists thinking they have privilege where they don't, delegitimizing decisions for reasons other than evidence, speaking to areas outside their expertise).
- Government science is science in the public good, and its roles are areas of departmental application and science advice to politicians
- Access to open data is essential and support for the pace of technological change needs to be in place.
- Intra- and inter-departmental synergies and breaking down of silos are essential for success. Interdisciplinarity can be encouraged by putting people into a room: they will find common areas of passion and work together naturally.
- Many efforts are moving towards co-produced science, such as patient-oriented research, but this applies in many other areas
- Scientists within and without of government must speak truth to power and be courageous, but recognize that the decision is not in their hands, and be smart about the time and place.

THEME: Innovating science communication

Key Speakers

Catherine Lau, Art the Science

Jonathan Provost, Department of National Defence

Key messages

- The government typically tries to communicate to 'everybody', but lack of targeting the message to the audience makes it for nobody and results in a public misconception of being communicated *at* rather than *to* or *with.* A new model focussed on relationship building with the intended audience is needed, particularly on the basis of original projects
- Comms strategies need to include relationship strategies.
- Speak in the visual languages of your audience. Money needs to be set aside on projects for visual communications (graphical abstracts, infographics, images), as they are more powerful.
- Sci comm is often an afterthought but needs to be developed at the outset, and messaging then can be used throughout the project.
- Communications about risk need to also include the risks of doing nothing as well as benefits, while also recognizing that not all risks can be quantified or named, particularly in relationship to Indigenous communities and ways of knowing.
- Trust is the most essential currency in communication, which requires time + relationship.