## Towards the increased use of local knowledge in international management bodies' advisory services

Finn Danielsen<sup>1</sup>, Jason Akearok<sup>2</sup>, Bjarne Lyberth<sup>3</sup>, Maria Tengö<sup>4</sup>, and Martin Enghoff<sup>1</sup>

Affiliations:

- 1. Nordic Foundation for Development and Ecology (NORDECO), e-mail: fd@nordeco.dk
- 2. Nunavut Wildlife Management Board
- 3. KNAPK, The Association of Fishermen and Hunters in Greenland
- 4. Stockholm Resilience Centre, Stockholm University

Environmental observing programs based on experiential knowledge of local resource users are receiving increased interest. Despite general policies of stakeholder involvement, information from the programs is often not utilised by Arctic decision-making bodies. Here we report about a new initiative started by the interest organizations of small-scale Arctic resource users to stimulate increased practical use of local knowledge in government decision-making.

International agreements and Arctic Council declarations emphasize the importance of engaging community members and Indigenous and local knowledge in decision-making on natural resource management and climate adaptation. In recent years, several initiatives have been taken on cross-weaving Indigenous and local knowledge with scientific knowledge. Important progress has been made both at the technical level (Johnson *et al.* in review) and at the global policy level (Convention on Biological Diversity, Tengö *et al.* 2017; Inter-governmental Science-Policy Platform on Biodiversity and Ecosystem Services; Díaz *et al.* 2019).

Nevertheless, Arctic government agencies' decision-making on quota-setting and resource management still do not sufficiently consider the Indigenous and local knowledge to fulfill the potential for improved monitoring and management. This is linked to the fact that government decisions often are informed by international management bodies that in turn only to a relatively limited extent are basing their advice on indigenous and local knowledge sources.

While international environmental management bodies are supposed to incorporate Indigenous and local knowledge into their advice to governments, this rarely happens in practice (Nordic Council of Ministers 2015; Inuit Circumpolar Council 2018). Advances in online platforms have made it possible to share community-produced observations across sites and scales of decision-making but such tools are not being fully used by the international management bodies.

In some Arctic community-based monitoring programs, hundreds of management proposals with supporting information have been made by small-scale resource users but only few have been acted upon by the authorities. In many cases, this is because international management bodies have made recommendations that contradict the resource users' proposals. Unless more actions are taken in support of the proposals by the resource users, their interest in acting in accordance with the international management bodies' recommendations will decline and opportunities for continued involvement of local resource users in documenting status of the resources will decrease.

With the rapid climate-induced species re-distribution, it is particularly relevant to shorten the gap between observation and action by further incorporating local knowledge in decision-making. There

are several examples where resource users have detected environmental changes earlier than scientists.

Among the international management bodies of greatest importance to the lives and livelihoods of small-scale resource users in the Arctic are: NAMMCO (The North Atlantic Marine Mammal Commission) and CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora).

During 2019 representatives of the interest organizations of small-scale Arctic resource users have started a cooperation with scientists to give fishermen and other small-scale resource users a stronger voice in the international management bodies that advise the Arctic authorities on resource management and climate adaptation. The long term goal is to contribute to enable Arctic communities to develop in an environmentally and socially sustainable manner.

The dialogue between resource users, scientists and the management bodies is focused on answering four questions:

1) Which natural resource management interventions are taken today in the Arctic with guidance from international management bodies?

2) What kind of knowledge is being used; and where do the management bodies get this knowledge from?

3) Where can resource users' knowledge be further incorporated and influence the guidance provided by the management bodies?

4) What is being done today in relation to utilizing local knowledge for informing the advice provided by the management bodies?

The process comprises a number of Skype meetings and an international workshop. The workshop will be held in Nuuk in 2020 with key representatives of Arctic resource users, government natural resource management agencies, scientists and international management bodies to exchange experiences and agree on tasks ahead, and roles and responsibilities for how to further incorporate resource users' knowledge into decision-making.

## <u>Acknowledgments</u>

Funding from Nordic Council of Ministers (grant A19210), European Union through the INTAROS project (Integrated Arctic Observing System, grant 727890), and Oak Foundation.

## References

- Díaz, Sandra *et al.* 2019. "Pervasive human-driven decline of life on Earth points to the need for transformative change." *Science* 366, no. 6471. doi:10.1126/science.aax3100.
- Inuit Circumpolar Council. 2018. *Wildlife Management Summit Report*. Ottawa, Canada, Nov. 6-8, 2017. Online: <u>https://secureservercdn.net/104.238.71.250/hh3.0e7.myftpupload.com/wp-content/uploads/ICC-Wildlife-Management-Summit-Report.pdf</u>.
- Johnson, Noor. *et al.* n.d. Digital platforms for community-based monitoring. *BioScience* (in review)

- Nordic Council of Ministers. 2015. Local knowledge and resource management. On the use of Indigenous and local knowledge to document and manage natural resources in the Arctic. TemaNord 2015-506. Copenhagen: Nordic Council of Ministers.
- Tengö, Maria *et al.* 2017. "Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability." *Current Opinion in Environmental Sustainability* 26: 17-25.