

CACCON Workshop Report
Circumpolar Arctic Coastal Communities Observatory Network

Purpose: CACCON Initial Design Workshop

Location: European Environment Agency, Copenhagen, Denmark

Dates: 14-16 April 2014

Participants: with affiliation, contact details, and funding source

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Background and Vision

The coastal zone is the interface through which land-ocean exchanges in the Arctic are mediated and where decision-making of local to global consequence takes place. It is also the home and homeland of many indigenous peoples and the home and workplace for temporary and permanent northern residents. Narrow, but vastly extensive, the coastal margin is the locus of complex interactions of marine, terrestrial and atmospheric processes that are sensitive to projected environmental change and anthropogenic stressors. Many northern indigenous cultures are dependent on marine resources and, in many Arctic regions, most communities are located on the coast or along rivers draining to the coast. A better understanding of current and expected circumpolar coastal change is urgently required, given that the region provides essential ecosystem services, supports indigenous economies and lifestyles, hosts a wealth of natural resources, and is a zone of expanding infrastructure investment and growing security concerns (Forbes 2011).

The Circumpolar Arctic Coastal Communities Observatory Network (CACCON or 'Catch-On!') is envisioned as a pan-Arctic network of community-engaged, multi-faceted, and integrative coastal

community observatories and knowledge hubs. These will address the current status and present or anticipated trends in natural and social conditions affecting human settlements and activities along the circumpolar Arctic coast. The goal is to develop and mobilize co-designed and co-produced knowledge that addresses real-world challenges to community well-being and sustainable development in the face of rapid environmental and social change. The project aims not only to generate and compile relevant data sets and indices of change, but crucially to understand how scientific and indigenous knowledge can and might better contribute to informing decisions on critical issues of climate, resources, and well-being in the north. The network will provide training opportunities to build local capacity across a range of disciplines and to facilitate the involvement of early-career researchers and northern residents in community-engaged research. The network and affiliated observatories will archive, manage, and disseminate the data, reports and other products of this research for use by future researchers and stakeholders, including traditional knowledge where appropriate.

There is no precedent for a network of coastal community observatories and knowledge centres that collect, distil, and share both physical/ecological and social science data to enable evidence-based decision-making in the Arctic. We use the term “community” in its broadest sense; it may refer to communities of residents (from hamlets to cities), industries, NGOs, or governments. As a consequence of climate change, changing demographics, resource shifts and extraction, and globalization, northern coastal zones are rapidly changing environments. There is an urgent need to inform adaptation processes in a way that addresses the local priorities of coastal communities in the Arctic. Moreover, once established, it is critical that these adaptation processes and decision-making supports are sustained within the region. A network of integrated Arctic coastal community observatories and knowledge hubs will fill this important gap.

Workshop Summary

The European Environment Agency kindly offered very convenient facilities for the workshop meetings in their office at Kongens Nytorv 6, Copenhagen. Most out-of-town participants stayed at the Copenhagen Strand Hotel, within easy walking distance. This report, based on detailed notes taken by Rudy Riedlsperger, provides a brief summary of the meeting. The workshop agenda is included as an appendix.

Participants in the workshop represented Russia, Norway, Iceland, Canada, USA, Austria, Germany, Nordregio, and the Indigenous Peoples’ Secretariat, including participants with extensive experience in northern Russia, Chukotka, Alaska, Yukon, Northwest Territories, Nunavut, Nunatsiavut (Labrador) and Greenland.

Day 1: The first morning was devoted to background information on the co-sponsors of the workshop (IASC and LOICZ [Land-Ocean Interactions in the Coastal Zone]), the ICARP-III process, and prior initiatives that inspired the development of CACCON. These included the Arctic coastal white paper presented at the ICARP-II conference in Copenhagen in 2005, the joint IASC-LOICZ Arctic Coastal Zones at Risk conference in Tromsø in 2007, and the State of the Arctic Coast 2010 report published in April 2011. The group then focused on an inventory of current initiatives and existing Arctic coastal observatory networks and databases. The intention was then to move on to a mapping of decision-making structures as a basis for assessing the distribution of key players and stakeholders in various jurisdictions who would have an interest in and could benefit from the CACCON network. However this proved to be a bigger task than anticipated and would form a separate early objective of the project. The remainder of the first day was devoted to further discussion of the CACCON vision.

Day 2: The second day involved extensive discussion of the objectives, role, contribution and co-design model for the network. Some time was devoted to experience with SLICA (the Survey of Living Conditions in the Arctic) and the Arctic Social Indicators (ASI) that evolved from that. The conclusion was that the small number of key ASI indices were manageable, simple, easily understood, useful, and as a result there was ready buy-in to that project. The workshop concluded that this might provide a model for a small suite of interdisciplinary CACCON indicators that could provide a starting point and common objective for the knowledge hubs in the network. There was extensive discussion on the scope and boundaries of the network, whether it should focus exclusively on direct or indirect coastal issues (or social issues relevant to coastal concerns) or take a more general approach. No firm decision was taken. The overall approach is to focus on coastal regions or communities in which coastal issues are a major factor with social-ecological impacts, yet to be open in a co-design mode to the issues that are at the top of the agenda for local partners. It was also suggested that the network could evolve in part as a set of case studies, in which partners will be able to share experience, best practices, and how adaptation to various types of change has been managed. The group was introduced to an approach known as 'Foresight Analysis' being used in the Nordic countries to foster local engagement and co-design.

There may be scale-dependence in the knowledge required for decision-making, but a key objective would be to identify the priority issues at various scales and determine how to meet the associated knowledge needs. At a circumpolar scale, indigenous peoples have recognized a number of common priorities, including climate change, traditional knowledge and western science, mental health, and indigenous languages. At regional or local levels, or in predominantly non-indigenous areas, other priorities will emerge, but issues related to climate change, sea level, coastal hazards, sea ice, health and safety, living resources, food security, permafrost and infrastructure stability, transportation, cultural integrity, fate control, and many more will resonate in most coastal communities around the Arctic. There was discussion about a risk-management approach and the applicability of a small set of common indicators (analogous to the ASI) that would allow communities to see where they stand, an approach similar to that of the Inuit Health Survey. Time on day 2 was also allocated to a description and discussion of the Arctic Coastal Dynamics project and an extensive set of physical indicator data already assembled and mapped on a circumpolar basis (e.g. Lantuit et al. 2012).

Day 3: This final day of the workshop focused on the roadmap to develop and 'test-drive' CACCON. A 5-step process was outlined, as follows:

- 1 – Initiating workshop (this meeting) and extensive informal consultation;
- 2 – Development of indicators (circumpolar with local co-design);
- 3 – Core network initiation – initial hubs as case studies
- 4 – Dissemination and outreach:
reports, data portal, peer-to-peer knowledge sharing, building knowledge use capacity;
- 5 – Cultivating a sustainable network: how to maintain capacity and a self-sustaining process.

A number of products were identified as valuable outputs over the coming year:

- 1 – CACCON Workshop report for internal purposes;
- 2 – CACCON report for ICARP-III;
- 3 – Paper or editorial in *Arctic* or *Polar Geography*;
- 4 – Plain-language pamphlet (multiple languages);
- 5 – Outreach document including fact sheet and perhaps maps.

It was noted that opportunities for further discussion amongst the initiating group and, more importantly, consultation with the broader research community and stakeholders, would arise at a number of forthcoming meetings, including:

- International Arctic Social Sciences Association, Prince George, May 2014
- Coastal Zone Canada, Halifax, June 2014
- Arctic Council Permanent Participants meeting, 2014
- Russian ICARP meeting, Arkhangelsk, Oct 2014
- Arctic Circle, Reykjavik, Oct-Nov 2014
- International Conference on Arctic Change (ArcticNet), Ottawa, Dec 2014
- ICARP-III, Toyama, April 2015
- International Geographical Union, Moscow, Aug 2015
- ASSW, Fairbanks, April 2016.

Several funding sources were considered. A proposal under the call for Fast Track Initiatives in Future Earth (funded by NSF) was submitted shortly before the workshop (deadline was April 4). Subsequent to the workshop, we learned that this was not funded directly, but was one of three proposals offered modest funding to explore opportunities for a common initiative and develop a proposal to be submitted in 2015. Other opportunities included the Belmont Arctic call (CACCON proposal submitted July 31, 2014) and possible funding under the Nordic Council.

Concluding remarks

This initiating workshop forged new relationships amongst a multidisciplinary, multi-generational, international group of Arctic researchers broadly committed to new, transdisciplinary, interactive approaches to issues of rapid change and sustainability in the circumpolar coastal zone. Over three days of discussion, we learned much about each other, shared experience from a wide range of Arctic communities and regions, and developed a number of fundamental principles for the future evolution of CACCON. First, it will be holistic. Second, simplicity will be a goal. Third, it will be co-designed and co-driven at the grassroots level in participant communities, be they small indigenous settlements, regional organizations or governments, or other entities. While there will be common objectives, indices, and processes, local priorities will also be acknowledged and addressed. Fourth, it will promote sharing and co-learning, both at the local level and amongst knowledge hubs forming the network. Fifth, through the sharing and co-learning processes, we expect that a number of best practices will emerge to enhance sustainability at local and regional levels around the circumpolar North.

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References

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- Lantuit, H. and 22 co-authors. 2012. The Arctic Coastal Dynamics database: a new classification scheme and statistics on Arctic permafrost coastlines. *Estuaries and Coasts*, 35, 383-400.

Appendix

CACCON Initiation Workshop

April 14-16, 2014

European Environment Agency (EEA), Kongens Nytorv 6, Copenhagen, Denmark

AGENDA

MONDAY, APRIL 14

10:00 – 11:00 **Introduction and background**

Welcome and orientation – Don Forbes

Introduction of informal CACCON Initiating Committee

Round-table to introduce participants and organizations represented

Placing CACCON within the context of LOICZ and IASC partnership, ICARP-II, State of the Arctic Coast report, ICARP-III, and other initiatives – Don Forbes

Health break

11:30 – 12:30 **CACCON vision** – Objectives of workshop and framework for what we are trying to do – Trevor Bell

Lunch

13:30 – 14:15 **Existing initiatives** – facilitators: Nicole Couture & Joan Nymand Larsen

14:15 – 15:30 **Breakout writing sessions** to document and characterize existing coastal observatory initiatives and databases, both regional and disciplinary.

What coastal observatory networks exist?

- which communities are represented
- identify knowledge gaps (disciplinary and geographical)

What coastal databases exist?

- inventory of available databases and their formats
- Who are the contacts? Who is represented? What is being observed?

Health break

16:00 – 17:00 Plenary report on breakout sessions and wrap-up of the day

19:00 *Dinner hosted by IASC*

TUESDAY, APRIL 15

09:00 – 10:30 **Mapping decision-making structures** – facilitators: Paul Overduin & Trevor Bell

Discussion about the governance and institutional domains in various jurisdictions

- define the decision-makers
- define the key stakeholders
- document the institutional framework
- what does the research landscape look like

Health break

11:00 - 12:30 **Breakout writing sessions** to map decision-making and lay out role of CACCON

Lunch

- 13:30 - 14:00 **Design of CACCON** – facilitator: Don Forbes
Pilot observatories in AACA regions or other examples – Skype link with Martin Fortier?
- 14:00 – 14:30 Discussion about CACCON design – facilitators: Joan Nymand Larsen & Trevor Bell
Vision of CACCON’s role and how it fits with agendas of other organizations
- the establishment of an Arctic Coastal Node
 - stakeholder engagement and community buy-in
 - incorporating existing and new observatories and data
- 14:30 - 15:30 **Breakout writing sessions** to document how CACCON should be structured – its governance, operational and outreach structures. Develop an expanded data model to support integration of physical-ecological and social data and indicators – role of local/traditional knowledge.
Health break
- 15:45 – 17:15 Plenary report on breakout sessions and wrap-up of the day

WEDNESDAY, APRIL 16

- 9:00 – 10:00 **Implementation and operation of CACCON**
– facilitators: Paul Overduin & Nicole Couture
Team building – define network team members
- 10:00 – 10:30 **Funding and other issues** – facilitators: Trevor Bell & Joan Nymand Larsen
- Future Earth Fast Track Initiative (FTI)
 - other funding possibilities (ISSA Transformations call, Belmont Forum call)
 - institutional support
 - data management and rights
- Health break*
- 11:00 - 12:30 **Breakout writing sessions** to identify pilot region potential team members and implementation strategies
Lunch
- 13:30 - 14:30 **Products** – facilitator: Don Forbes
- Workshop report from this meeting
 - Paper in journal *Arctic*?
 - CACCON report and recommendations for ICARP III
- Health break*
- 14:45 – 15:45 **Next steps**
Contact additional partners
Northern engagement possibilities
- AACA Baffin Bay/Davis Strait regional workshop, early June 2014, Nuuk, Greenland
 - Topical session or townhall meeting about CACCON at Arctic Change, 8-12 December 2014, Ottawa, Canada (session proposals due 16 May 2014).
 - Suggested venue for launch of CACCON report
 - Final ICARP III conference at ASSW, Toyama, Japan - 27-30 April 2015
- 15:45 – 16:00 Workshop wrap-up