



Title of activityInternational Study of Arctic Change (ISAC) Responding to Change Activities

Type of activity Date Place

Workshop and Scoping January 2012 Kingston, Canada Meeting January 2014 Tromsø, Norway

Main organizer(s) (name and/or organization) and additional partners Main Organizers:

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Abstract1

Responding to Change (RtoC) is one of the three components of the International Study of Arctic Change (ISAC) Science Plan; the other two components are Observing and Understanding Change. In 2012 ISAC began the implementation of RtoC activities with a first workshop in Kingston, Canada. This was followed in 2014 with an RtoC Scoping Meeting in Tromsø, Norway. The 2014 meeting built on the results and recommendations of the 2012 Workshop (Murray et al. 2012, www.arcticchange.org) and addressed topics related to stakeholder engagement and Arctic observing activities for the scientific and stakeholder communities. Specifically participants at the Scoping Meeting were asked to consider the four recommendations from the 2012 RtoC Workshop:

- 1. Development of an interactive, widely accessible, stakeholder engagement tool to identify key research questions;
- 2. Use of the RtoC framework to increase exposure between stakeholders and arctic observing systems;
- 3. Aligning science events with stakeholder driven events;
- 4. Entraining a greater diversity of research capacity from engineering, social science and the health sciences research communities into existing and developing arctic research programs, as well as their design and implementation process.

In combination both the 2012 and 2014 RtoC activities have led to a series of contributions and/or recommendations to ICARP III in each of the priority areas as described below. In 2015 as part of the ASSW/ICARP III events there will be a third RtoC activity - a Workshop on the Partnership between the Scientific Community and Arctic Stakeholders. This workshop was organized by the Japanese ASSW Local Organizing Committee with the support of ISAC (International Study of Arctic Change) as an interim activity to bridge AOS2014 and AOS2016. Results will be reported through the ISAC Program Office.

¹ Provide a short summary of the activity

Main contributions to ICARP III² in terms of the ICARP III priorities³

The following recommendations stem from both the 1st ISAC RtoC Workshop (Kingston 2012) and the Tromsø scoping meeting (2014) and build upon initial discussions held during the 2011 ISAC International Coordination and Cooperation in Arctic Research Meeting (Fairbanks 2011). In all they represent the collective efforts of ca. 200 people representing the research community, aboriginal groups, government agencies and NGOs. They are focused on RtoC needs for the next decade.

1. Identify Arctic science priorities for the next decade

- Develop an implementation plan through ISAC for responding to change research;
- Develop new conceptual models capable of projecting Arctic change for the coming decades (beyond environmental change);
- Refine processes for better identification of emerging issues;
- Prioritize the collection, rescue and analysis of long-term data sets and use that data to inform response to change (scientific, local and policy response for example) in light of emerging issues;
- Identify and build on areas where science is actually informing response (Including scientific response) in areas of key concern (for example - loss of critical habitat, changes to the cryosphere, human and wildlife health, development)
- Focus attention on Arctic/global linkages and feedbacks across all aspects of Arctic System research (biological, social and physical)

2. Coordinate various Arctic research agendas

- Building momentum for Arctic Observing Summit(s), the first RtoC Workshop and the Tromso scoping meeting brought diverse groups together to tackle synthesis. Future synthesis should specifically designed to address needs for responding to change;
- RtoC activities bring missing members of the research community participants into the discussion (engineers, health researchers, educators, economists, etc.); This process should continue;
- More broadly, ISAC activities are directed toward development of an international synthesis effort to advance scientific inquiry, transform knowledge, and inform.

3. Inform policy makers, people who live in or near the Arctic and the global community

- RtoC Activies include preparation of materials for the policy and decision-making communities and for ICARP, RtoC recommendations include:
 - 1. Identify critical gaps between science and policy:
 - 2. Work in concert with the PPs and other indigenous organization to advance translating both TK and science into policy relevant information that may be applied.

4. Build constructive relationships between producers and users of knowledge

- RtoC activities have led to the following recommendations:
- Identify those outside of the research and operational communities who can, do and might use the observational information (among the other stakeholder groups);
- Consider the knowledge needs of the broadest possible spectrum of stakeholders;
- Improve engagement with private sector knowledge producers and users;
- Look to regions outside the Arctic for examples of managing the complexities of environmental change, while respecting indigenous rights and knowledge;
- Look to regions outside the Arctic for examples of concrete actions leading to policy;
- Develop new and more effective communication mechanisms so that the need for longterm observation is clearly understood by those outside of the scientific community;

² List a few key statements (findings, priorities, recommendations) that you would like to see reflected in the overarching ICARP III products

³ ICARP III priorities:

identify Arctic science priorities for the next decade

coordinate various Arctic research agendas

inform policy makers, people who live in or near the Arctic and the global community

build constructive relationships between producers and users of knowledge