

Equity and Shared Benefit – Revisiting the Concepts and Practices of the International Arctic Observing Assessment Framework

S. Starkweather¹, C. Chythlook², M. Rudolf², V. Buschman^{2,3}, M. Biermann², H. Eicken²

1. Cooperative Institute for Research in Environmental Sciences, University of Colorado - Boulder, CO USA
2. International Arctic Research Center, University of Alaska Fairbanks, AK, USA
3. Greenland Institute of Natural Resources, University of Greenland, Nuuk, Greenland

Introduction

Equity has emerged as an important goal within planning processes, including within Sustaining Arctic Observing Networks (SAON) Roadmap for Arctic Observing and Data Systems (ROADS) process. Definitions of equity in relation to sustainable development highlight three interrelated dimensions that are valuable to examine within ROADS: distribution, procedure, and recognition (McDermott *et al.*, 2012). Distribution is concerned with who realizes benefits or incurs costs; procedure refers to how decisions are made and by whom; recognition is about the status afforded to different social and cultural values or identities and to the social groups who hold them. All of these dimensions of equity should inform benefit assessment within ROADS. This short statement makes specific recommendations to improve and build upon the state of these concepts and practices.

Background

One of the main themes at the 2016 Arctic Science Ministerial (ASM) was *Strengthening and Integrating Arctic Observations and Data Sharing*. The ministers committed to the “*shared development of a science-driven, integrated Arctic-observing system*” and saw “*a critical role for the Sustaining Arctic Observing Networks (SAON) initiative*”. In 2017, Sustaining Arctic Observing Network partners engaged in an effort led by the US Science and Technology Policy Institute (STPI; supported as a US deliverable to the ASM) to develop an Arctic-specific societal benefit framework to advance observing system partnerships under shared objectives. Framework development involved a review of international Arctic strategies for common objectives that rely on Earth observations. Following this review and the engagement of subject matter experts from international, state, and local governments; academia; Indigenous organizations; and non-governmental organizations, STPI and SAON co-led a 3-day workshop to add structure and detail. The resulting International Arctic Observing Assessment Framework (IAOAF, IDA, 2017) identifies 12 Arctic-specific Social Benefit Areas (SBAs) that rely on Arctic observations:

1. Disaster Preparedness
2. Environmental Quality
3. Food Security
4. Fundamental Understanding of Arctic Systems
5. Human Health
6. Infrastructure and Operations
7. Marine and Coastal Ecosystems and Processes
8. Natural Resources
9. Resilient Communities
10. Sociocultural Services
11. Terrestrial and Freshwater Ecosystems and Processes
12. Weather and Climate

Observations on Equity in IAOAF

The stated purpose of developing the IAOAF was to create “a common set of international objectives for the delivery of societal benefit to the region” through a process that would yield “a consensus assessment framework”. One intended use of the IAOAF was to provide the justification for sustained investments in a pan-Arctic observing system, but also to identify the potential for generating greater value at the intersection of seemingly diverse objectives. The IAOAF was an inspiration for the ROADS process and has been taken up by efforts in Europe (e.g. Dobricic et al., 2018) and United States (e.g. Starkweather et al., 2020) to justify sustained investments and identify value-added actions. As a result, how benefits are determined and defined, and who is included in those definitions, are central questions to achieving equity.

A review of the key documents used to develop the IAOAF illustrates one of its shortcomings - only national Arctic observing strategies are referenced as inputs, demonstrating a lack of direct input from communities. Further, the framework was produced through western processes with limited participation by Indigenous experts and was supported through top-down mechanisms on a short timeline. Deliberations by the Food Security Working Group at the 2020 Arctic Observing Summit pointed out some of these shortcomings of the IAOAF and supported the view that Indigenous-led frameworks like the ICC-AK Food Security Framework (ICC-AK, 2015) result in better guidance as to how benefits are related and understood within Inuit communities. For example, the Food Security benefit area within the IAOAF does not capture the relationship, reciprocity, and responsibility to the land that is central in Indigenous worldview.

As part of its process, ROADS calls on Expert Panels to systematically assess the shared benefit of proposed observing system subject areas (e.g. permafrost or salmon). While ROADS does not require the use of the IAOAF in benefit assessment, there is a need for stronger dialog and guidance on how assessment should proceed, with a particular emphasis on guidance that will lead to more equitable outcomes.

Recommendations

The following observations and recommendations are meant to inform these dialogs:

- Recognize that there are many ways to conceptualize benefits and much work has already been done by Indigenous communities to identify relevant conceptual frameworks and indicators (e.g. Donkersloot et al. 2020) for place-based work;
- Given the diversity of relevant worldviews and actors, it is unlikely that there is a ‘one size fits all’ approach for benefit assessment within the ROADS process and each Expert Panel within ROADS should identify or co-produce the frameworks of highest relevance to their region or topic;
- ROADS Expert Panels are encouraged to consider how diverse frameworks can be linked to yield multi-dimensional understandings of benefits that acknowledge both global and local perspectives (e.g. Sterling et al. 2020 who explore fit between locally defined well-being and global Sustainable Development Goals) and to apply assessments toward identifying beneficial intersections across activities rather than ‘ranking’ or ‘prioritizing’ one activity over another;

- Recognize that the benefit assessment process will be influenced by differing worldviews, power, and positionality, so adequate procedures must be in place to assure that all voices are heard within a co-production of knowledge approach;
- Encourage stronger and diverse communities of practice to develop around benefit assessment, to share approaches and lessons learned. For example, the RNA CoObs project, the US Arctic Observing Network initiative and Arctic PASSION are all pursuing benefit assessment in their respective projects and could learn from one another;
- SAON invites its partners to recognize that the IAOAF is a living framework and there are opportunities to continue to enrich and revise the definitions within it.

The ROADS process seeks to generate alignment across the many diverse partners concerned with Arctic observing and data systems in order to build stronger partnerships and shared value. Adopting a lens of societal benefit in planning is an opportune starting point for building such relationships, but only if the resulting frameworks and their implementation explicitly recognize the equitable distribution of costs and benefits, implement fair procedures for decision making and generate recognition for diverse worldviews.

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