



InsSciDE Work Package 7:

Environment: Monitoring as an Arena for Science Diplomacy

Case Study n°7.3	The networks of Arctic Monitoring and Assessments and the objectives of the Arctic Council
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Abstract

This InsSciDE case study focuses on formal scientific assessments of the Arctic environment which have become important features in both the public and the political understanding of the region. The Arctic Monitoring and Assessment Programme (AMAP) was put in place in the 1990s and eventually became a working group of the Arctic Council, which is made up of the eight Arctic states Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. These assessments have a scientific *raison d'être* but the development of their popular and executive summaries is also an arena for political decision making and thus of essence in understanding science diplomacy in a European context.

Introduction

The case explores how environmental monitoring carried out by the Arctic Monitoring and Assessment Programme functioned as an arena for international agreements. Furthermore, the case investigates how some of the popular and executive summaries were agreed upon, received in the Arctic Council and formed the basis of further action. A central question is to what extent scientists in fact conducted foreign policy already in designing the monitoring project and choosing which forms of environmental knowledge to collect. Science and technology are not neutral practices that give an unmediated image of the environment. On the contrary, science and technology create the environment from nature and those processes are laden with values and choices.

The Arctic with its 4 million human inhabitants has become a central arena and not just a periphery. Climate change is a major reason for this development as its effects are seen with greater amplitudes in the region. Moreover, Arctic climate change impacts including shrinking sea ice, warming oceans and changing currents will have global effects and are thus essential to study and monitor. At the same time the shrinking sea ice has led to speculations about the possibility of increased resource extraction in the region, ironically furthering the global warming that allows this extraction in the first place. The region is thus a nexus for climate change, negotiations and politics. To agree on issues concerning this region is a diplomatic task not just for the eight Arctic Council members but also for the six of them that belong to the European region.

Actors

There are several layers of actor categories in this case, intervening at different levels according to the issue in question. Central individual actors in this case are scientists who negotiate, plan and carry out the actual monitoring and assessment. Often these projects involve large international conglomerates of people from many universities and institutes that work together for several years. Furthermore, the Arctic Council, the



member states as well as the permanent participants and the observer states can be seen as actors on a specific level. The process of arriving at a statement is also an arena in which new actors can be formed.

Fields and disciplines, interfaces with technology

The AMAP assessments by now stretch over several decades and cover many areas of environmental change and pollution. It is too early to say which sciences and which fields have been privileged and perhaps also proved to be arenas where diplomacy has been more or less successful. The arrival of the so called human dimension in the overall Arctic assessments is, however, late and notable.

Disciplinary/methodological approach

This case draws on literature in history of science, technology and environment as well as science and technology studies. The co-production of science and society (Jasanoff 2004) is a core interest in STS and the boundary work separating the two also has a long history (Gieryn 1983). In this particular case, the role of the scientist as for example broker (Pielke 2007) will be of interest.

The text of a few assessments will be analyzed as well as their production and reception. Interviews will be conducted with some of the persons involved in producing these texts and their reception.

Essential bibliography

Annika E. Nilsson, *A Changing Arctic Climate: Science and Policy in the Arctic Climate Impact Assessment* (Linköping: Linköping University, Department of Water and Environmental Studies, 2007).

R Mitchell, W C Clarke, D W Cash & N M Dickson (eds.), *Global Environmental Assessments: Information and influence* (Cambridge: MIT Press, 2006).

Nina Wormbs, "The Assessed Arctic: How Monitoring Can Be Silently Normative", in *The New Arctic*, ed. Birgitta Evengård, Joan Nymand Larsen & Øyvind Paasche (Cham: Springer International Publishing :, 2015), 131–51.

Nina Wormbs & Sverker Sörlin, "Arctic Futures: Agency and Assessing Assessments", in *Arctic Environmental Modernities: From the Age of Polar Exploration to the Era of the Anthropocene*, ed. Lill-Ann Körber, Scott MacKenzie & Anna Westerståhl Stenport (Basingstoke: Palgrave Macmillan, 2016), 247–62.