Arctic viewpoints to the governance of climate-altering approaches

C2GLearn: Climate-altering approaches and the Arctic

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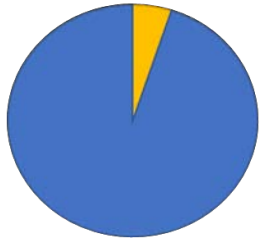
What is governance?

- IPCC 2018: *”a comprehensive and inclusive concept of the full range of means for deciding, managing, implementing and monitoring policies and measures”*
- Many levels from local to global; multilevel governance
- Governments, scientific community, media, business, civil society
- Rules, regulations and laws; international cooperation; market instruments; incentives, funding and support; guidelines and codes of conduct; unwritten norms

The Arctic as a region

- The Arctic is a home to 4-4,5 million inhabitants
- 8 countries and several indigenous peoples
- 10-20 % indigenous population
- The Arctic has <0,05 % of the global population (7,4 billion)

4,5 million inhabitants of which 10-20 % indigenous



The Arctic Portal

Who Owns the Arctic? | Live Science
livescience.com

How the global battle for the Arctic became the new Cold War
newstatesman.com

What happens in the Arctic...does not stay in the Arctic - Tähdistö
tahdistolehti.fi

6 Stone-cold Facts A
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The Arctic Ocean, explained | National Geograp...
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Arctic likely to be ice-free by 2050 despite cl...
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Arctic in Depth - Scenic® USA
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lot Spots' for Melting Sea Ice Identified i...
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Arctic Warming Faster Than Previously Thought –...
themoscowtimes.com

Russia to offer preferences for people relocat...
northernforum.org

A thawing Arctic is heating up a new ...
nationalgeographic.com

How we solved an Arctic mercury ...
theconversation.com

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”What happens in the Arctic doesn’t stay in the Arctic”

- The Arctic is warming 2-3 times faster than the global average
- The impacts of climate change are seen first in the Arctic
- Keeping the global warming at 1.5 degrees would help to alleviate or avoid some negative impacts, but that would still mean 5,5 degrees warming in the Arctic (NASA)
- Several tipping points in the Arctic with global consequences
- Melting of the Greenland ice sheet can cause several meters’ sea level rise
- Saving the Arctic by climate-altering techniques for the Arctic or for global reasons?

Some relevant governance frameworks, instruments and processes

- International law
- National legislations
- Convention on Biodiversity (CBD) (CBD 2008)
- London Convention 1972 and the 1996 London Protocol (IMO 2016)
- The Kyoto Protocol
- UN Framework Convention on Climate Change (UNFCCC) (UN 1992)
  - Paris Agreement 2015 (UNFCCC 2015)
- The UN Convention on the Law of the Sea (UNCLOS) (UN 2009)
  - Basic framework for managing all marine activities in the Arctic
  - Exclusive Economic Zones 200 nm
- Regional governance frameworks including the Arctic Council

Solar Radiation Modification

- Increasing the reflectivity (albedo) of the Earth's surface or atmosphere
- Purpose to cool down the global climate
- Doesn't replace mitigation by GHG emission reductions
- Impossible to cool only the Arctic; trying to cool the Arctic results in some amount of global cooling
- Solar radiation modification (SRM) would ideally need at least near-global consensus
- How much cooling? Who can decide to deploy?

Targeted interventions

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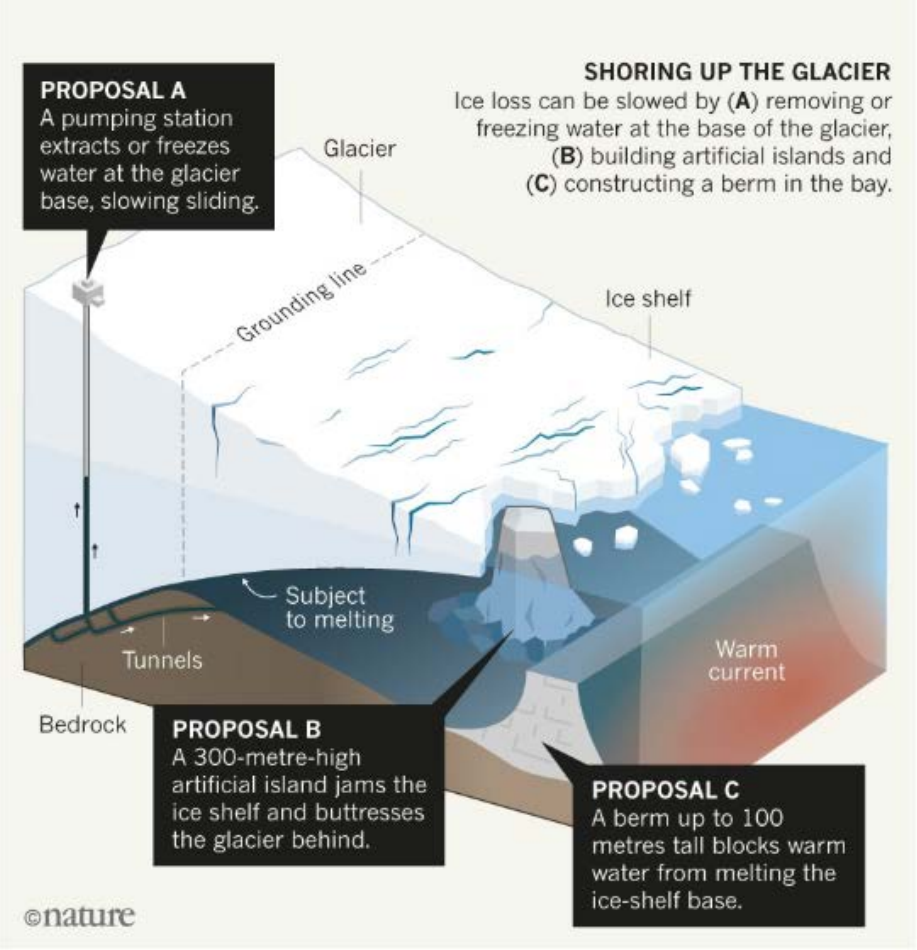
- Targeted interventions include e.g.
  - Ice911
  - Pleistocene park for conserving permafrost in Siberia
  - Ice sheet conservation
- Undertaken at the regional or local level for protecting the Arctic environment or to prevent global sea level rise
- Applying the precautionary principle, maintaining the status quo
- Targeted approaches may require only a subset of states to agree on them
- 200 nm Exclusive Economic Zone
- Can take place within a state's territory; national legislation

- Moore et al. (2018) *Nature*
- Moore et al. (2020, forthcoming) *Global Policy*
- Bodansky & Hunt (2020) *International Journal of Marine and Coastal Law*



Source: J. Moore et al.; Design: Claire Welsh/Nature

The Arctic Council

- Established in 1996 by a declaration
- No legal powers but a soft-law instrument with influence
- Roots in the Arctic Environmental Protection Strategy (1991)
- 8 Arctic States, 6 permanent participants (indigenous peoples of the Arctic) and 38 observers incl. Non-Arctic states, NGOs, intergovernmental and international organisations
- Iceland's Chairmanship 2019-2021:
  - The Arctic marine environment
  - Climate and green energy solutions
    - Work on black carbon continues
  - People and communities of the Arctic
  - Stronger Arctic Council
- Arctic as a region of peace and stability; cooperation between member states despite differing opinions elsewhere
- Climate change important theme; no Rovaniemi declaration in May 2019

- The Arctic Council is an important body for environmental collaboration in the Arctic
- Recent reports include
  - AMAP, 2019. AMAP Climate Change Update 2019: An Update to Key Findings of Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017
  - Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017
  - Three regional reports on Adaptation Actions in a Changing Arctic (AACA) in 2017-2018

Arctic Council and climate-altering approaches

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- The Arctic Council has been suggested as taking a role in defining and representing ”the Arctic voice” on climate-altering approaches
- No stance or role so far in the governance of climate intervention
- The Arctic rush – aims towards the Arctic ”inner circle”
- Corry 2017: *”Arctic countries must not only wake up to challenges that come with the prospect of geoengineering, but must recognize that they have a special responsibility to carry out such investigation*”
- Bodansky & Hunt 2020: *”the Arctic Council could (…) serve as an assessment and policy forum, since it comprises the actors who have the primary interest in Arctic activities, including the Arctic circumpolar countries and indigenous communities”*

Code of conduct for research on climate-altering approaches (Hubert 2020)

- Governance of research internal or external to the scientific community
- Research on climate-altering approaches is needed, as “information on the efficacy, risks, and benefits of geoengineering measures may be necessary in the future to support better informed decision-making”
- Moratorium of the use of climate-altering approaches “until there is an adequate scientific basis on which to justify such activities and appropriate consideration of environmental and other effects”
- Climate-altering approaches cannot be promoted as an alternative to mitigation or adaptation

Several research ethical guidelines for research in the Arctic

- **Principles for Conducting Research in the Arctic / the U.S. Interagency Arctic Research Policy Committee (IARPC) 2018**
  - Be Accountable
  - Establish Effective Communication
  - Respect Indigenous Knowledge and Cultures
  - Build and Sustain Relationships
  - Pursue Responsible Environmental Stewardship

International Arctic Social Sciences Association IASSA Principles and Guidelines for Conducting Ethical Research in the Arctic (2020)

- Guidelines for all researchers working in the North in the social, natural and health sciences, and in the humanities
- Aim to promote mutual respect, communication and partnerships between researchers and northern residents
- Complementary to other international, national, professional, Indigenous or local guidelines
- ” 1. The researcher **should consult with the appropriate regional, local and/or Indigenous authorities regarding planned research within their territories**.”
- ”11. Research should be **beneficial for local communities and their political decision makers** through appropriate knowledge sharing”

Research as governance?

- Knowledge on the impacts of different climate-intervention designs are needed for meaningful participation in governance
- For example, the DECIMALS project empowers developing countries by providing knowledge on the impacts of Solar Radiation Management in those countries
- Research permissions would be required for research projects on targeted interventions in e.g. Greenland
- Co-production of knowledge with local communities may inform research agendas and this way contribute to research governance?
- Gupta & Möller 2018: “authoritative assessments constitute a source of *de facto* governance themselves, and consequently shape the context for *de jure* types of governance.”

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