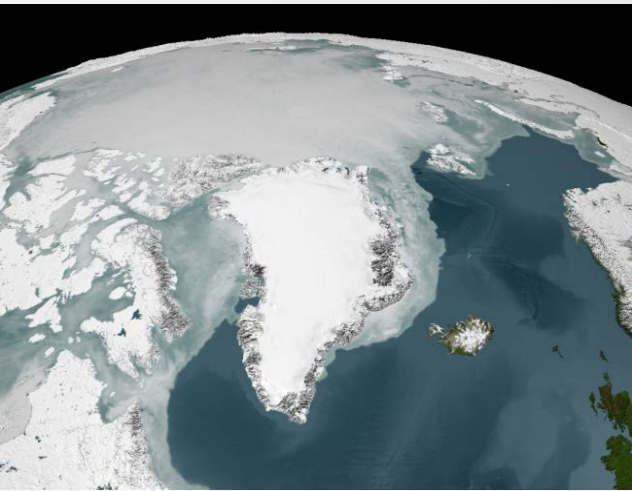


# Transboundary approach proposal for sustainable and climate change adaptation strategies in the Arctic

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# Fascinating Arctic



*source: NASA*



*source: USGC*



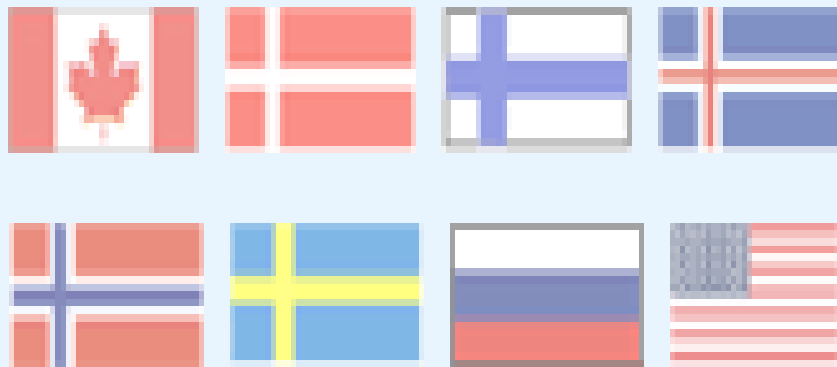
*Source: National Geographic*



*Source: Arctic Council*

# Phenomena

Climate change and technological advances



pressure on Arctic governance

# Arctic environmental governance

## Environmental Assessments (EAs)

- Arctic states included EAs provisions in legislation
- Signed international conventions on EA
- Arctic EA guidelines



- Limited and diverse application of EA
- Lack of inclusion of specific Arctic conditions
- Guidelines seldom been used
- Low capacities to carrying out EAs

# Hydrological and environmental monitoring

- Sustaining Arctic observation networks (SOAN process)



- Declining monitoring where climate change is expected to be greatest

- Limited funding and competing information

# Research needs

- Address the low application, limitations and gaps with EA to better plan the projected increase of human activities in the Arctic
- Prioritize and optimize Arctic monitoring networks to couple monitoring systems to information goals, EA and other governance structures

# Collaborative research project

**Overall objective** combine recent frontline research on quantitative analysis of environmental monitoring with strategic environmental governance to:

- develop strategic decision-making tools and assessment processes
- explore and improve the preconditions for and links between environmental management, policy-relevant monitoring and climate change adaptation strategies in the Arctic

# Methodology

- Phase I: Arctic institutional and governance framework analysis (policies, sustainability objectives, environmental monitoring and assessment practice)
- Phase II: design of a transboundary and participatory SEA approach for information, knowledge and skill increase and exchange (identifying conflicts & gaps of knowledge; a common dev. visions for the Arctic)



# TRANSBOUNDARY ARCTIC SYSTEM

## STRATEGIC ENVIRONMENTAL ASSESSMENT

Screening

Context analysis

Governance & climate change characterisation

Key issues, common objectives & visions

Gaps, uncertainties & conflicts

Assessments

Scenarios

Remaining gaps & uncertainties

Cross-border networking & public participation

Decision making processes

Development & adaptation measures

Monitoring measures

Governance objectives & strategies

Development & adaptation objectives

Monitoring strategies

Yes

No

# Conclusions

## Transboundary SEA approach in the Arctic

-help answer key questions like:

-What activities should take place?

-How should these be carried out and for how long?

-How to deal with unexpected effects?

-What mitigation and monitoring measures should be considered?

- facilitate strategic dialogues on Arctic development
- arrive at common visions and objectives
- set the scope for environmental policy and human activity management
- allow deriving operable strategies e.g. Arctic climate change adaptation and monitoring strategies
- future research: interesting to apply elsewhere

# Thank you!



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