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EU Arctic Footprint and Policy Assessment

Emily McGlynn

Transatlantic Fellow, Ecologic Institute, Berlin

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- Biodiversity
- Chemicals and Transboundary Pollution
- Climate change
- Energy
- Fisheries
- Forestry
- Tourism
- Transport
- Arctic Indigenous and Local Livelihoods





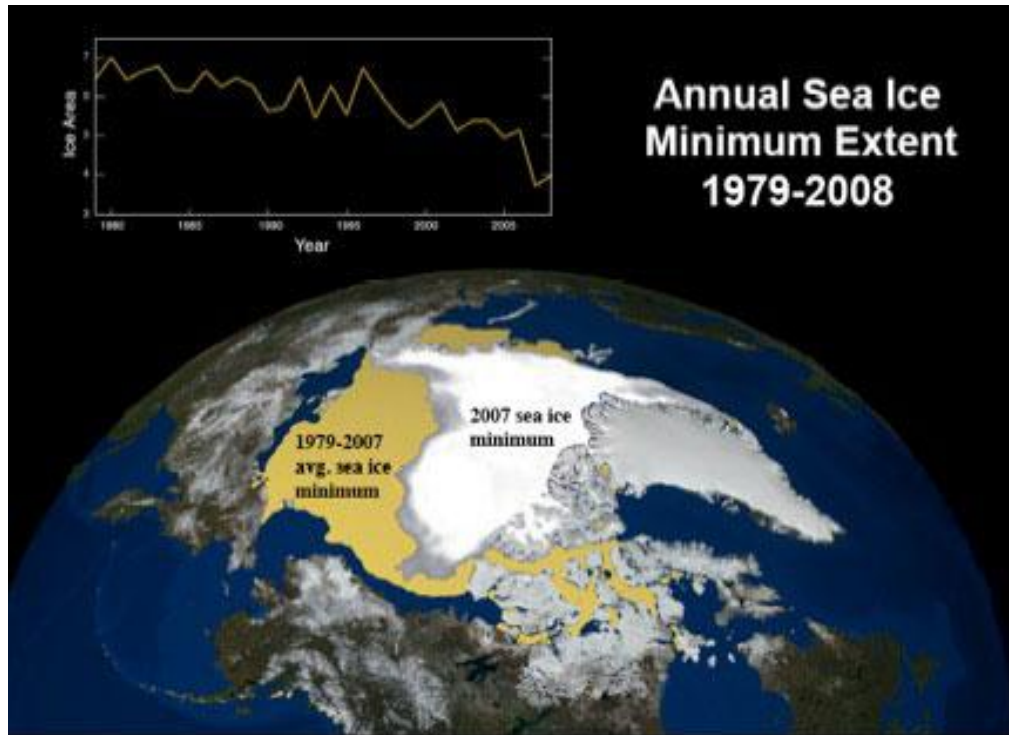
Outline

- Policy context and project overview
- Methodology
- EU's footprint in 9 policy issue areas
- Major short-term and long-term policy recommendations





Policy context



www.climate.nasa.gov





Policy context

The European Commission and High Representative decided in 2008 that the EU needs an Arctic policy because:

- Opening of new international trade routes
- Increased accessibility to “enormous hydrocarbon resources in the Arctic region”
- Changing geo-strategic dynamics – **consequences for European security interests**





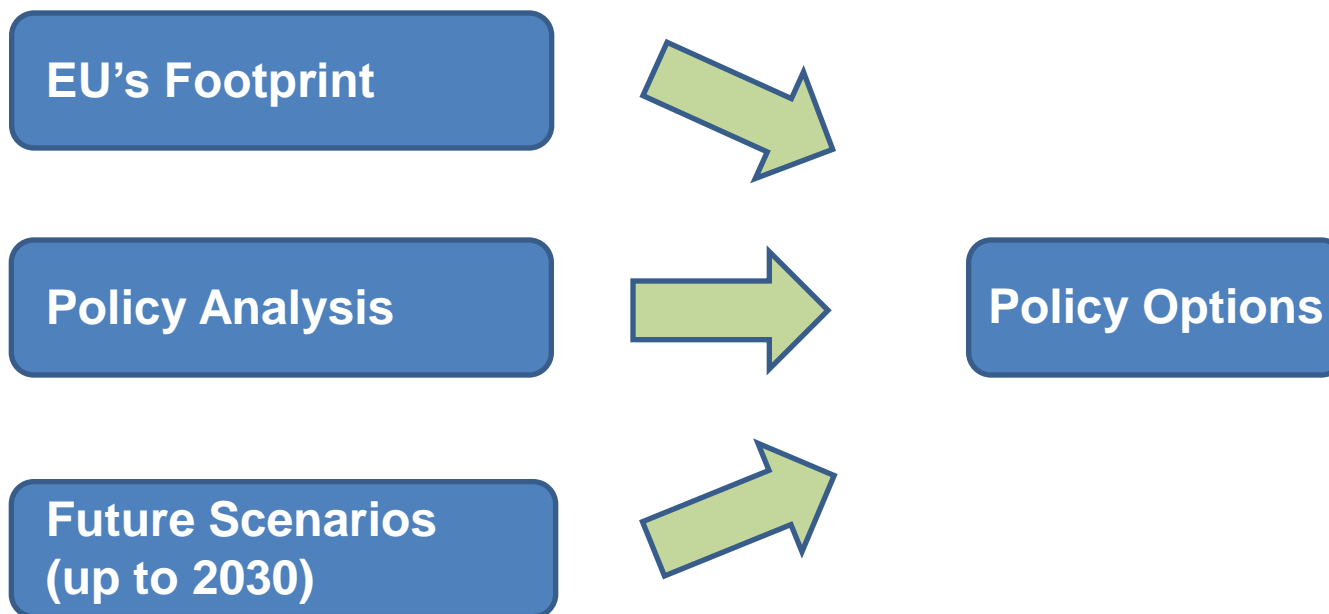
Policy context

- **March 2008:** European Commission and High Representative report on Climate Change and Security
- **November 2008:** European Commission Communication – The EU and the Arctic Region
- **December 2009:** Council Conclusions on Arctic Issues
- **January 2011:** Parliament resolution on a sustainable EU policy for the High North





Project overview





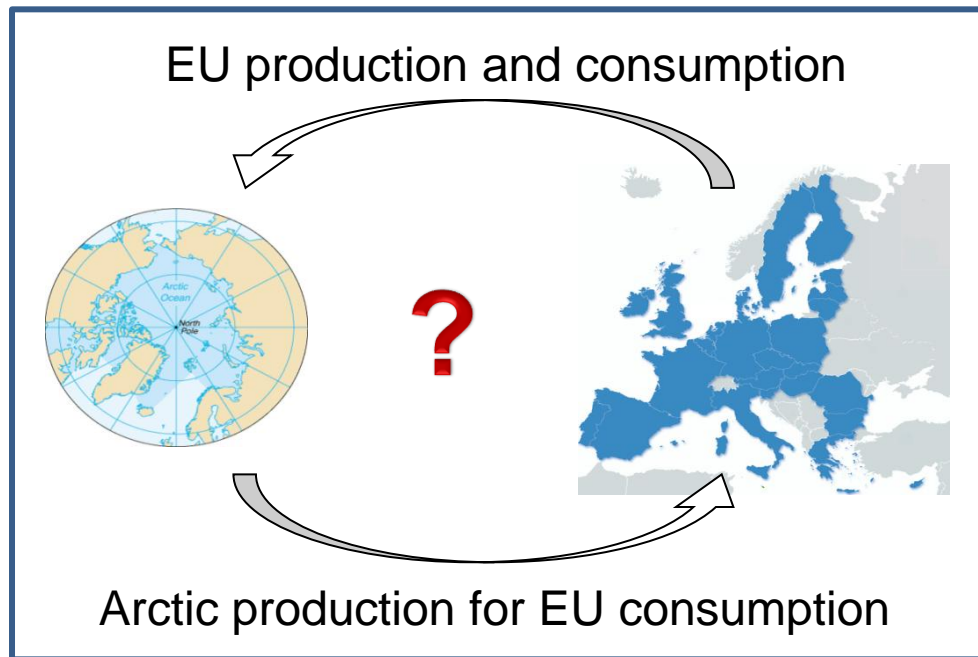
Policy issue areas

- Biodiversity
- Chemicals and transboundary pollution
- Climate change
- Energy
- Fisheries
- Forestry
- Tourism
- Transport
- Arctic indigenous and local livelihoods





Footprint methodology



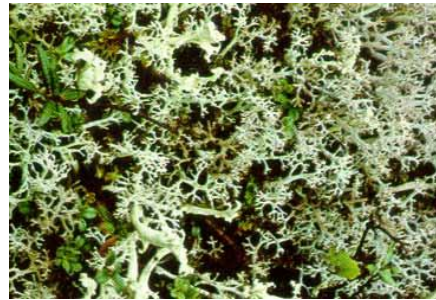


Biodiversity

n.a.



<http://photography.nationalgeographic.com>



<http://www.arcticice.org/plants.htm>



Bluhm/UAF



<http://akcenter.org>

Biodiversity loss from other impact areas:

- Tourism and shipping
- GHG emissions and transboundary pollutants
- Resource extraction



Chemicals and transboundary pollution

POPs

- PCB-153 emissions (Europe)
- BFRs market demand (Europe)

Heavy metals

- Mercury emissions (EU-27)
- Products from Hg-intensive Arctic industries (EU-27)

Acidifying gases

- SO₂ emissions (EU-27)
- Products from SO₂-intensive Arctic industries (EU-27)

57%

17%

24%

36%

42%

38%





Climate change

Greenhouse gases (EU-27)

- 2008 global share of all IPCC GHG emissions
- Historical contribution (1900-2005): 23%

16%

Black carbon (European continent)

- EU share is likely around 40-45%
- Data is limited and source locations are debated

59%





Energy

Arctic oil and gas industry (EU-27)

- total output of the Arctic's oil and gas industry, including pipeline transportation

24%

Arctic infrastructure-intensive industries (EU-27)

- share of Arctic exports from selected industries: oil, gas, diamond and metal extraction

60%



Fisheries

Arctic fish capture production (EU-27)

Norway (33%) and Iceland (30%) make up for most of total Arctic fish capture production

4%

Fish imports from Arctic countries (EU-27)

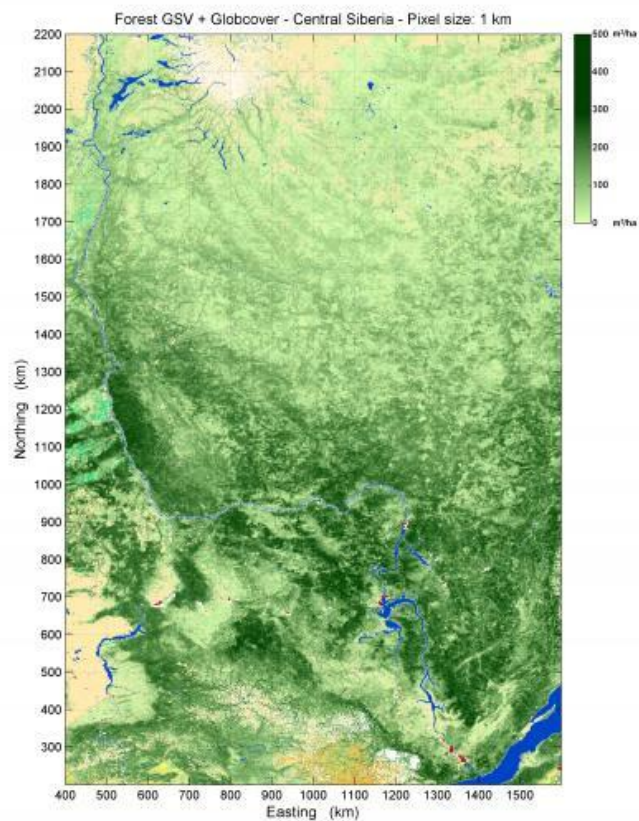
Fish imports from selected Arctic countries (Canada, Iceland, Norway, Russia, and USA) as a share of the total fish exports of these countries

39%



Forestry

n.a.



Credit: ESA, Gamma Remote Sensing, Friedrich-Schiller University Jena





Tourism

Tourists in the Arctic (EU-27)

27%



MV Clipper Adventurer – <http://www.cruiselawnews.com>





Transport (Shipping)

n.a.





Arctic indigenous and local livelihoods

n.a.



Village of Shishmaref – <http://nomenugget.net/>



Policy recommendations

Long-term Policy Considerations:

- Build upon scenarios
- Progressive thinking based upon already existing policy instruments
- Overall comprehensive options, not divided into issue area

Short-term Policy Options:

- Build upon results of policy analysis
- Fill gaps that analysis identified
- Many options for each issue area





Policy recommendations

Long-term Policy Considerations:

- Utilising ecosystem-based management
- Assisting in Arctic climate change adaptation efforts
- Continuing climate change mitigation efforts within the EU and internationally
- Continuing to increase resource efficiency
- Reducing pollution from a wide variety of sources
- Strengthening the policy process within the EU and among other international actors and improving cooperation





Policy recommendations

Short-term Policy recommendations (a few examples):

- *Chemicals* – Support/encourage reduction of mercury emissions in emerging economies (see EU-China cooperation)
- *Energy* – Strengthening of Northern Dimension policy, cooperation with Russia
- *Fisheries* – Support/initiate declaration on Arctic fishing (see USA example)
- *Tourism* – Creation of Arctic Tourism Association
- *Transport* – Support for the development of marine infrastructure, esp. emergency response capacity and pollution response





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Thank you
<http://arctic-footprint.eu>

