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Arctic Shipping: risks to ecological and socio-cultural values

Erin Abou-Abssi
Director of Policy
erin@oceansnorth.ca



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Oceans North supports marine conservation in partnership with Indigenous and coastal communities. Arctic shipping work is focused on supporting Inuit-led initiatives, community-based programs, and policy development. Shipping emissions work includes advocating for the inclusion of Canada's maritime sector in its climate plan, including hosting first ever Ports and Maritime Hydrogen Summit.



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Arctic shipping risks to ecology and socio-cultural impacts

- Arctic shipping in Canada contends with many special challenges
- Risks from shipping include:
 - Disturbance to wildlife and hunting
 - Pollution events
 - Introducing invasive species
 - Overwhelming essential capacity
 - Contributing to climate change

How can LNG help?

- Significantly lowers spill risk
- Significant decrease in NO_x and SO_x pollution
- GHG emissions are not at scale compatible with net zero by 2050



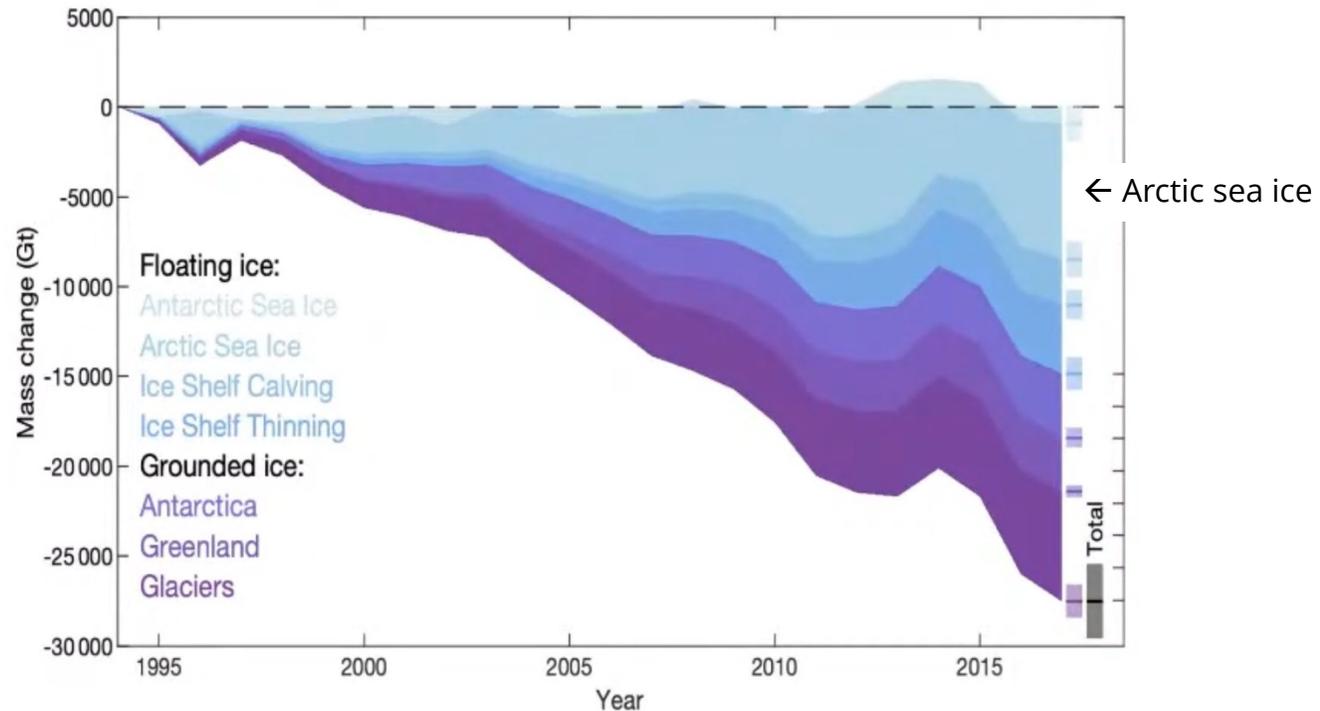
Need for shared vision for future Arctic shipping

- Possible Futures
 - Transit
 - Tourism
 - Destination
- Low Impact Shipping Corridors
 - Focus on prevention
 - Better infrastructure for shipping
 - More, higher-quality, and closer to real-time information for mariners
 - Proactive management and environmental protection
 - Greater monitoring and oversight
 - Higher level of partnerships with Inuit



Greatest risk to the Arctic marine environment is climate change

- Arctic has already warmed 3.1 °C since 1971
- 7.6 trillion tons of Arctic sea ice have been lost since 1994
- Linear relationship: loss of 3 m² of Arctic sea ice per metric ton of CO₂e emissions
- Wide ranging effects
- Equity implications



Notz and Stroeve, 2016

Sources: AMAP 2021. Arctic Climate Change Update 2021: Key Trends and Impacts
Slater et al. 2021. Review article: Earth's ice imbalance. The Cryosphere, 15, 233-246
Notz and Stroeve. 2016. Observed Arctic sea-ice loss directly follows anthropogenic CO₂ emissions. Science, 354 (6313)

Implications of climate action for Arctic LNG

- Expect acceleration in pace of policy action
 - Forthcoming methane regulations for oil and gas sector (at least 75 percent below 2012 levels by 2030)
 - Fossil fuel subsidy phaseout by 2023
- Expect shipping to be brought in line with other sectors
- Uncertain and marginal GHG reductions don't align with action needed



Climate Action Tracker. Canada. 15 Sept 2021 Update.



So what then?

- Better to focus on solutions that get us to where we need to go and that benefit Arctic people
 - Major, long-term investments in housing, energy systems, local infrastructure, and adaptation are climate-aligned
 - Investments in safer arctic shipping to prevent impacts
 - Investment in zero emissions technologies for ships and Arctic communities

Thank you for your attention

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