

10 December 2021



Climate change and the effects on fisheries management

Nordic Climate Change Forum for Fisheries and Aquaculture
Presentation by Dr. Jón Þrándur Stefánsson

Government of Iceland
Ministry of Industries and Innovation



The starting line

Is there a need to change fisheries management to meet or adjust to the climate challenges?



Heróubreið

Agreement on the Platform for the Coalition Government
of the Independence Party, the Left Green Movement
and the Progressive Party

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We want to create a consensus on the utilisation of resources. **We emphasise combating climate change by reducing emissions, energy conversion and green investment.** At the same time, it is our task to prepare Icelandic society for increased technological advances, while ensuring further improvement in living standards for all generations. Emphasis will be placed on balancing economic, social and environmental factors.

The new coalition government target

Independent target to reduce Icelandic greenhouse gas emissions by **55%** compared to 2005.



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The capeline catch case story!

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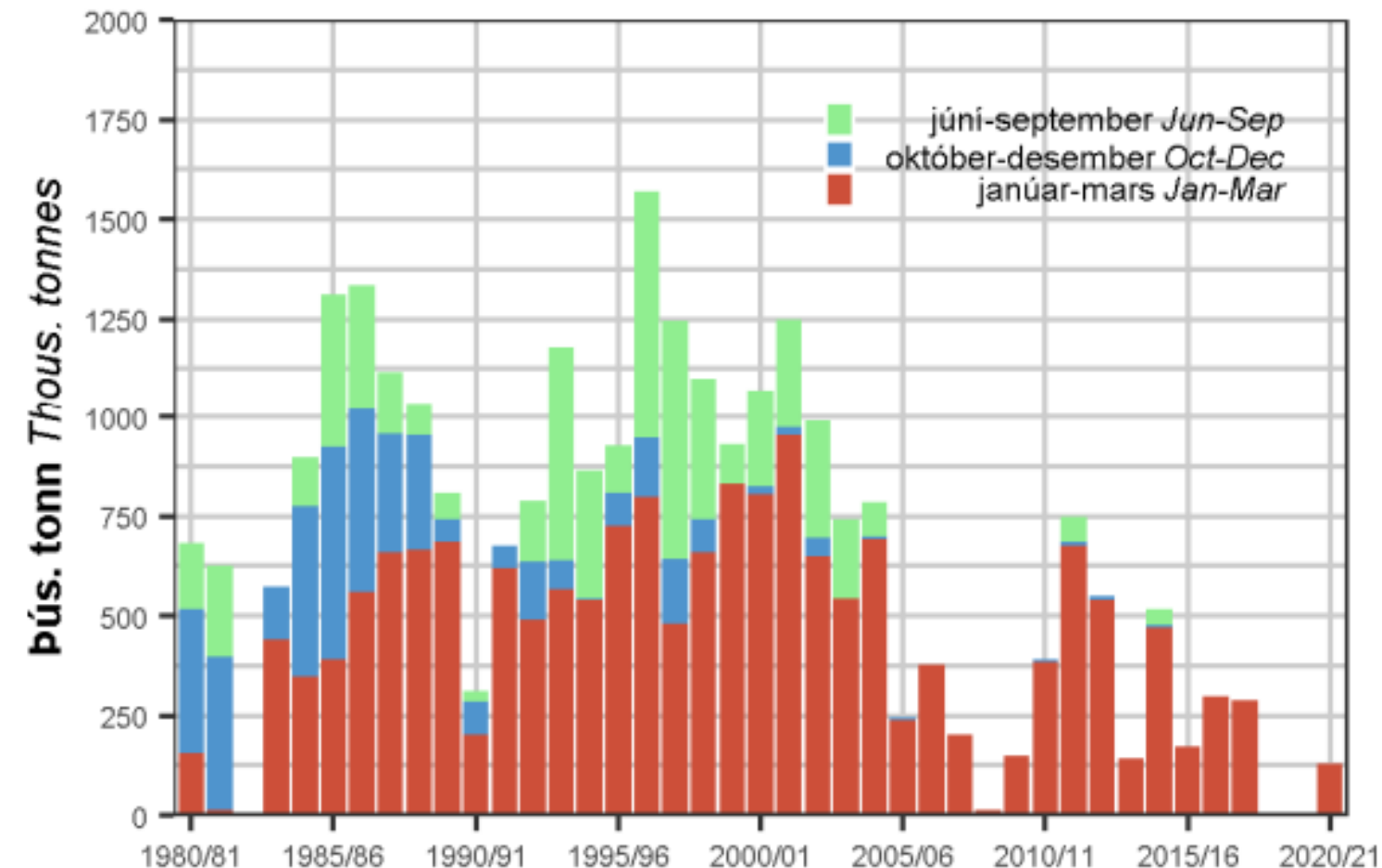




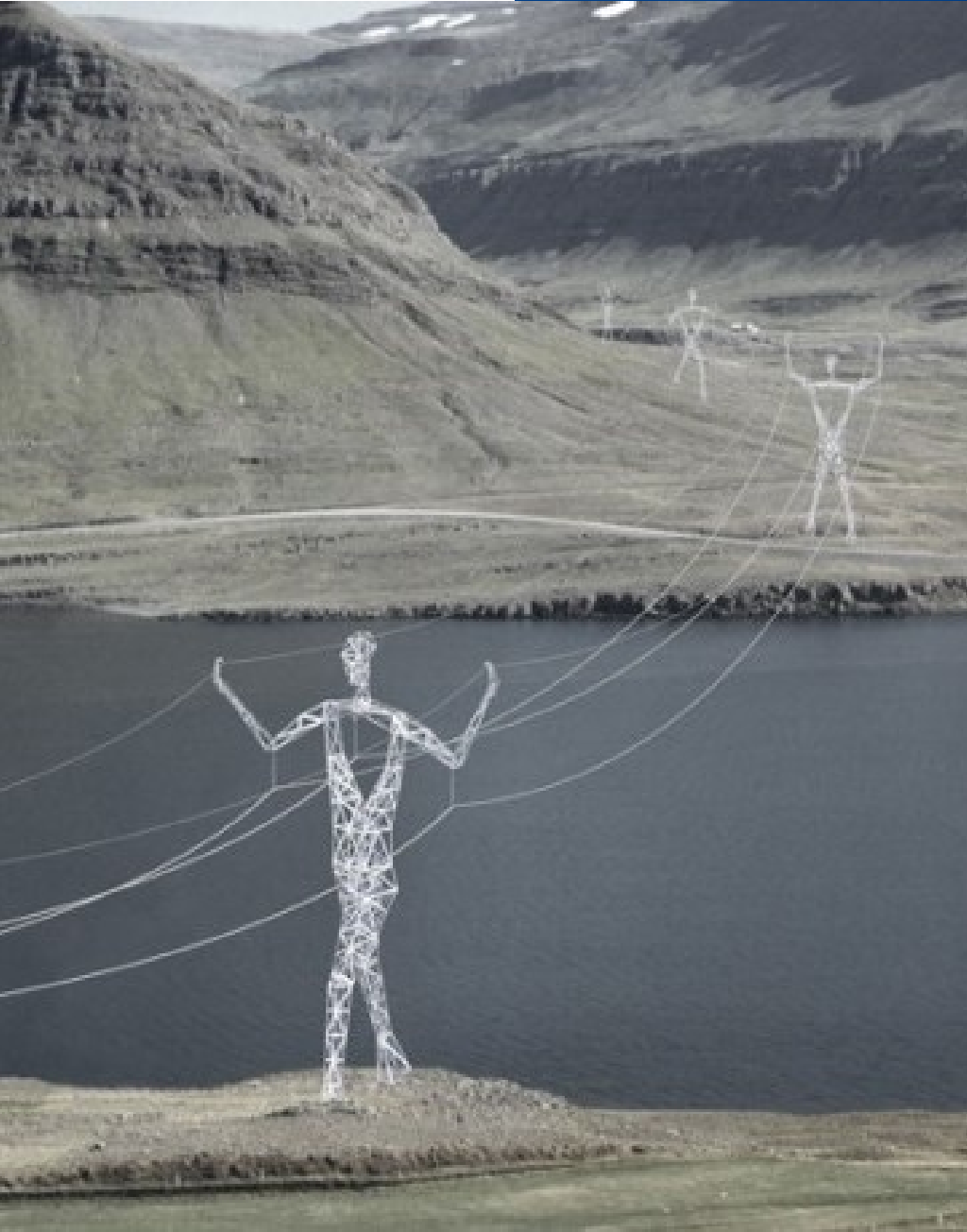
What will be the climate impact of the 904.200 tons capelin catch quotas for the 2021/22 season in Icelandic waters?



Afli Catches



This will increase CO₂ emissions and likely reversing the reduction trend at least temporarily due to higher energy needs for the catch.



Limiting the access to electrical power

The National Power Company of Iceland, announced that it would immediately reduce the delivery of electricity to large users including to fish meal factories.

This decision is expected to have a major effect on fish meal factories, which will likely have to increase their use of oil of 54.400 tons of CO₂ equivalents.

This will drastically increase the carbon footprint of Icelandic fisheries, in addition to increasing cost to the fish meal factories.

Source: News | Iceland Monitor | Wed 8 Dec 2021 | 11.22 GMT

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Back to the climate issues

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Fisheries management in Iceland

Climate challenges are not addressed as **direct variables** in fisheries management.

However, fisheries management can in some cases potentially address climate challenges **indirectly** through other means.

- Use of fishing gear
- Open fishing areas
- Types of vessels and requirements
- Allocation of TAC
- Resource rent/taxation



Considerations in fisheries management



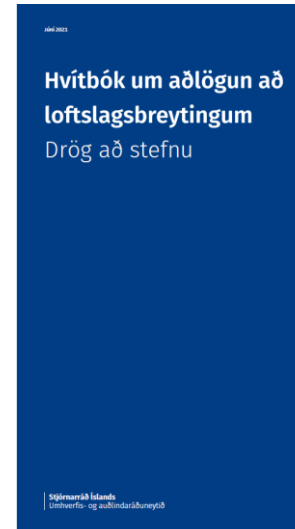
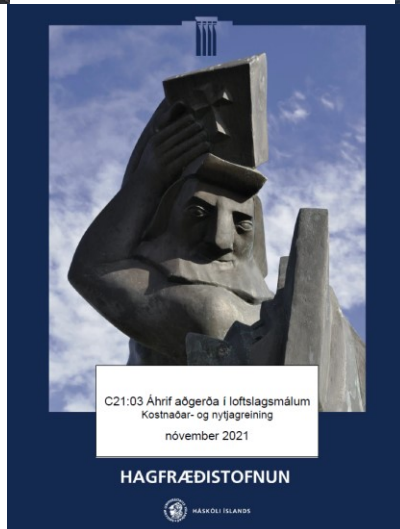
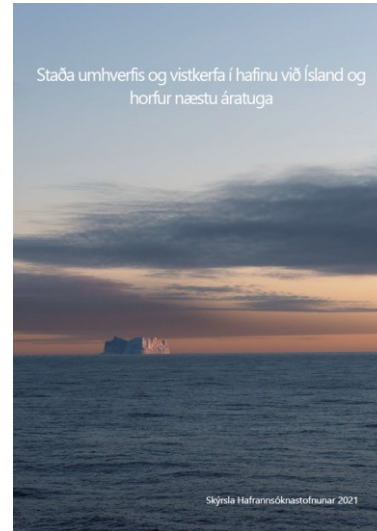
An example of potential climate change challenges and migration patterns: Fisheries management and „new species“ disputes



- It is of vital importance that the coastal states, Iceland, Norway, the Faroe Islands, the EU, and the UK, reach an agreement on the management of mackerel fisheries, including the allocation of quotas, as soon as possible.
- The coastal states carry a joint responsibility for preventing overfishing from the stock and ensuring sustainable fisheries.
- All parties must all contribute to reaching an agreement.
- This dispute needs to be resolved at the negotiating table in a civilized manner based on objective factors and the principles of sustainable fisheries.



Recent reports published on the issue





júní 2021

Græn skref í sjávarútvegi

Skýrsla starfshóps
fjármála- og efnahagsráðherra

Stjórnarráð Íslands
Fjármála- og efnahagsráðuneytið

Green steps in the fishing industry

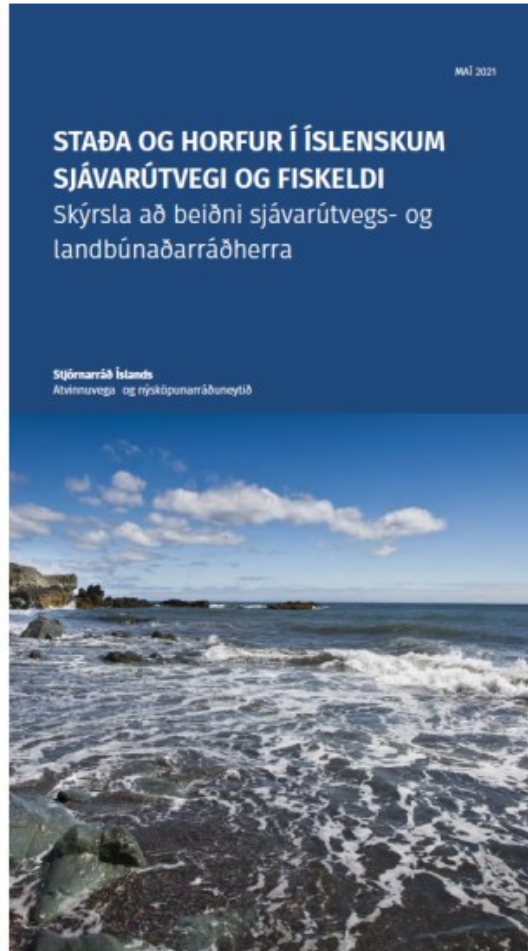
- Some measures to be considered in order to increase efficiency and reduce energy use
 - Changes in catch
 - Changes in fisheries management e.g. allocation of TAC to specific vessels
 - Changes in resource rent to promote more efficiency



„**Proposals** of the working group **for green steps in the fisheries sector will be followed up on**, to accelerate as much as possible energy conversion in the fisheries sector.

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The state and the outlook for the Icelandic Seafood Sector

- New resources to be utilized
 - Opportunities in aquaculture
 - Opportunities considering the catch and utilization of mesopelagic fish species

The state of the ecosystem and the sea and the outlook for next decades



- Regulatory challenges
 - Changing migration patterns of joint fishing stocks
 - Changing distribution patterns of fishing stocks
 - Changing productivity in the sea
 - Changing temperatures and degree days
 - The effects of fishing gear



Júní 2023

Hvítbók um aðlögun að loftslagsbreytingum

Drög að stefnu

Stjórnarráð Íslands
Umhverfis- og auðlindaráðuneytið

White Paper on Adaptation to Climate Change

- Fisheries management related issues
 - Ensure sufficient monitoring and assessment of the effects of climate change on stocks and distribution of exploitable marine stocks
 - MFRI funding and research
 - Risk assessment and assessment of the adaptation needs of the seafood and aquaculture industry



Fisheries management regulations in Iceland

The Fisheries management in Iceland is heavily regulated.

- We are in the early stages of forming new regulation to meet the climate challenges
- The recent reports will serve as guidelines in assisting on how to formulate the regulations

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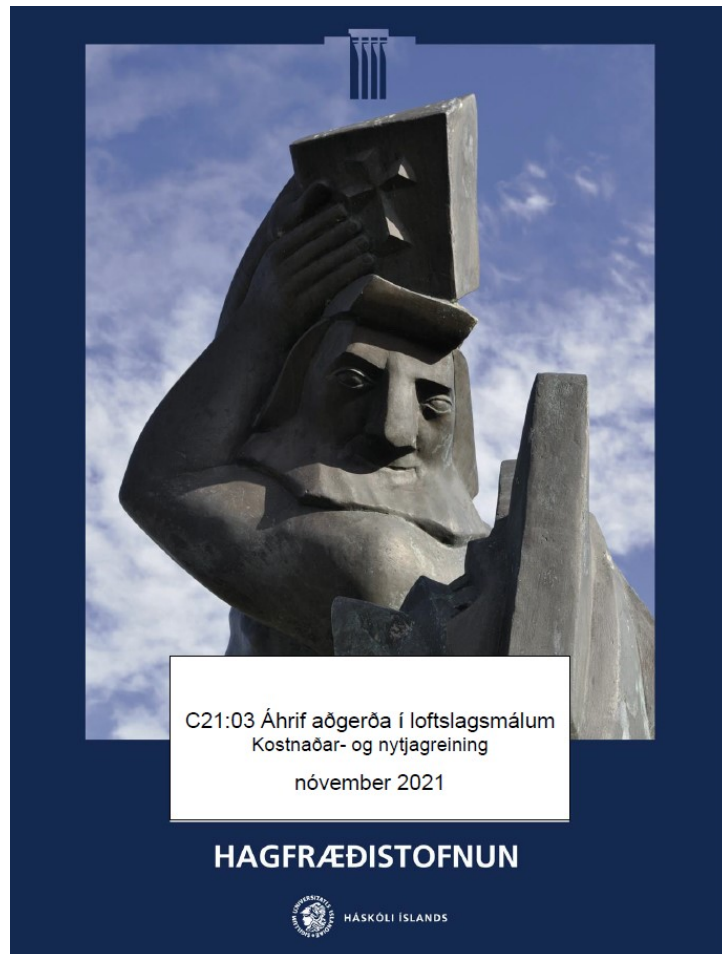
Stjórn fiskveiða 2021/2022 Lög og reglugerðir

Atvinnuvega- og nýsköpunarráðuneytið
september 2021

Í sérprentun þessari eru helstu lög og reglugerðir sem lúta að stjórn fiskveiða á fiskveiðarárinu 2021/2022. Útgáfa þessi er ætluð til hagræðis. Séu í sérprentun þessari að finna frávik frá texta Stjórnartíðinda vikur þessi texti að sjálfsgöðu.

The Impact of Climate Actions

Cost and benefit analysis (work in progress)



- Work in progress on cost benefit analysis on various measure that are included in current action plan.
- No cost and benefit analysis directly related to fisheries management issues
 - Clear benefits to implement connections to the electrical grid for vessels in docking in harbour.
 - Clear benefits to convert fishmeal factories from using oil to electricity.



Pathways for Decarbonization of the Icelandic Maritime Sector

Samorka, Ministry of Industries and Innovation, Associated Icelandic Ports and Fisheries Iceland

Report No.: 2021-1074, Rev. 2
Document No.: 10306236
Date: 2021-11-12



Pathways for Decarbonization of the Icelandic Maritime Sector

- Analysis of the current situation.
 - Current fleet, energy use, and CO₂ emissions
- Emission targets and drivers for the decarbonization
- Alternative marine fuels
- Scenarios towards 2050



Thank you for listening