

Fisheries transitions in times of crisis and changes – are strong property rights the appropriate answer?

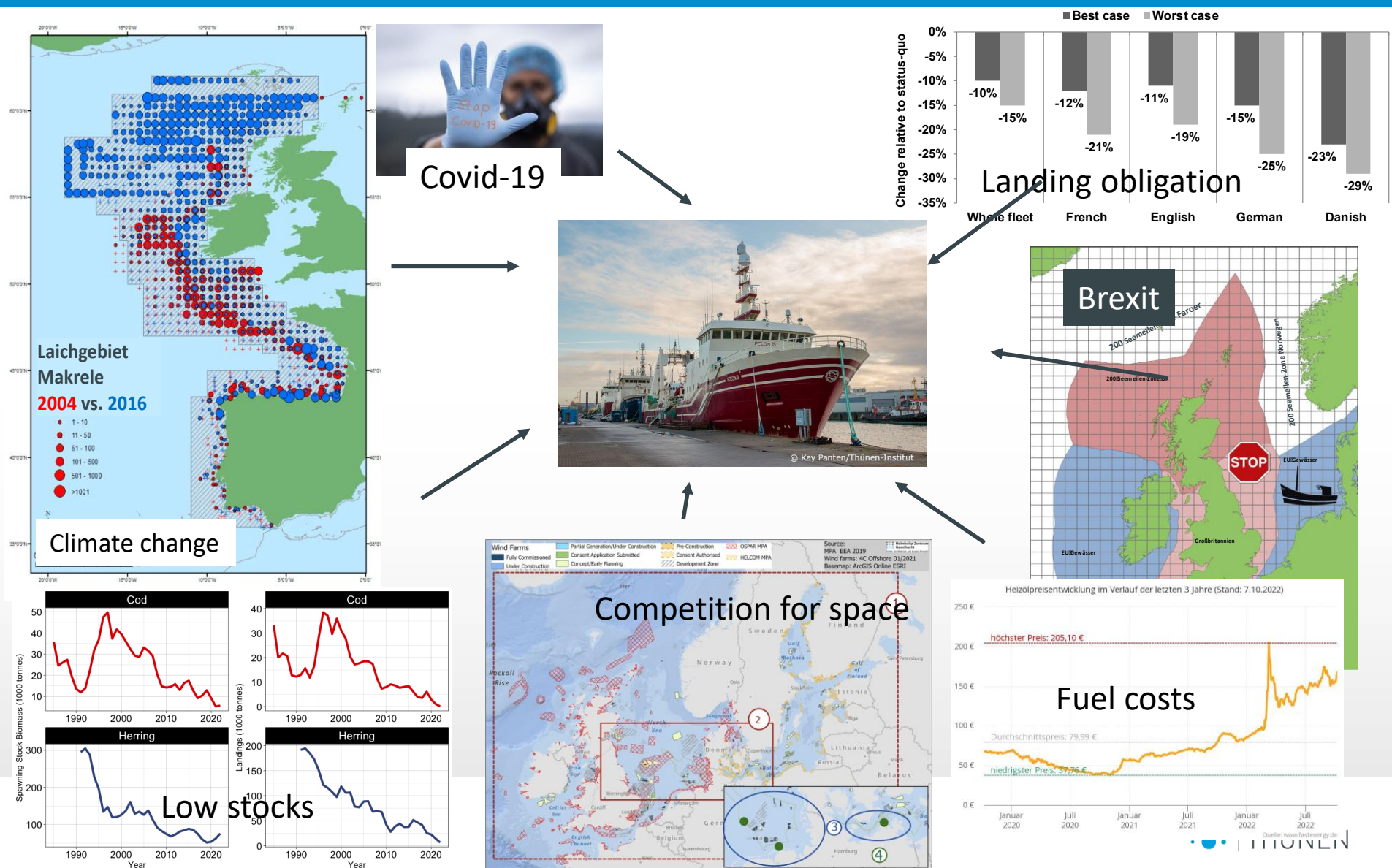
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Overview

- Introduction – Work in progress
- Efficiency in fisheries – mostly a cost-efficiency issue
- Times of crisis/Times of transition – The fishing sector need to adapt
- Conclusions regarding today's property rights situation
- Outlook

Introduction – Fishing sector economically vulnerable



Introduction – Work in progress

- German fisheries in phase of transition – especially coastal fleet segments but also larger ones
- Quota cuts due to Brexit, change in species distribution etc. leads to uncertain future
- Adjustment to changing situation is necessary – could be problematic due to management framework
- Could be also an efficiency question
- Work in progress – Objective: more flexibility for fishing vessels regarding e.g. quota distribution may lead to more resilience

Efficiency in fisheries – mostly a cost-efficiency issue

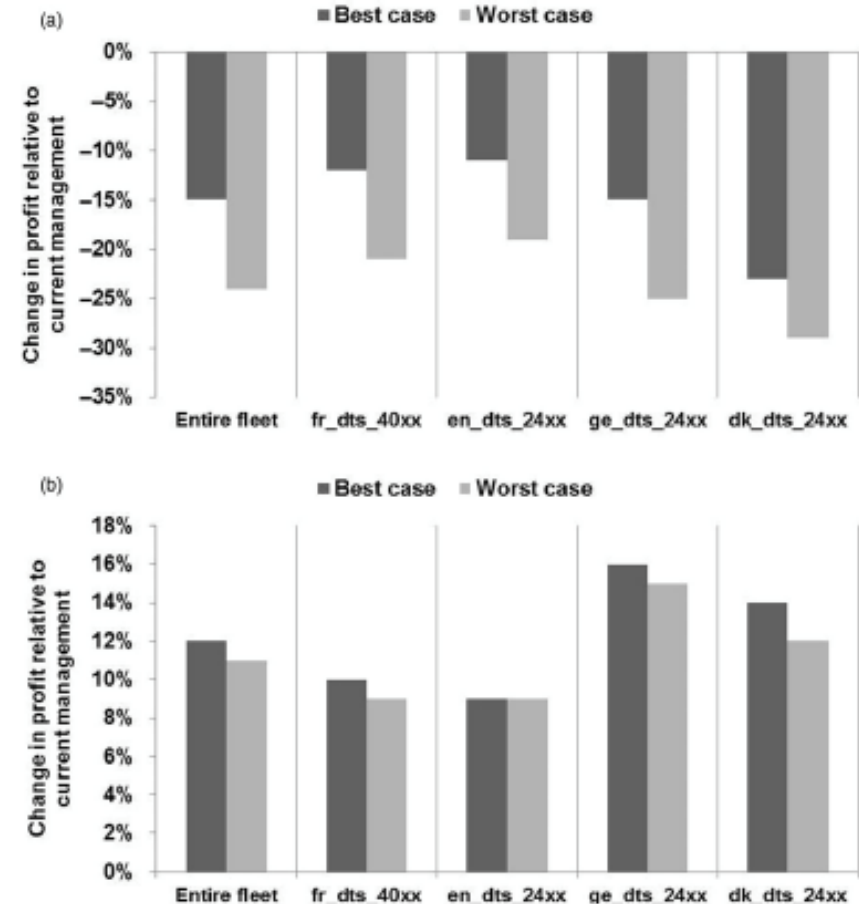
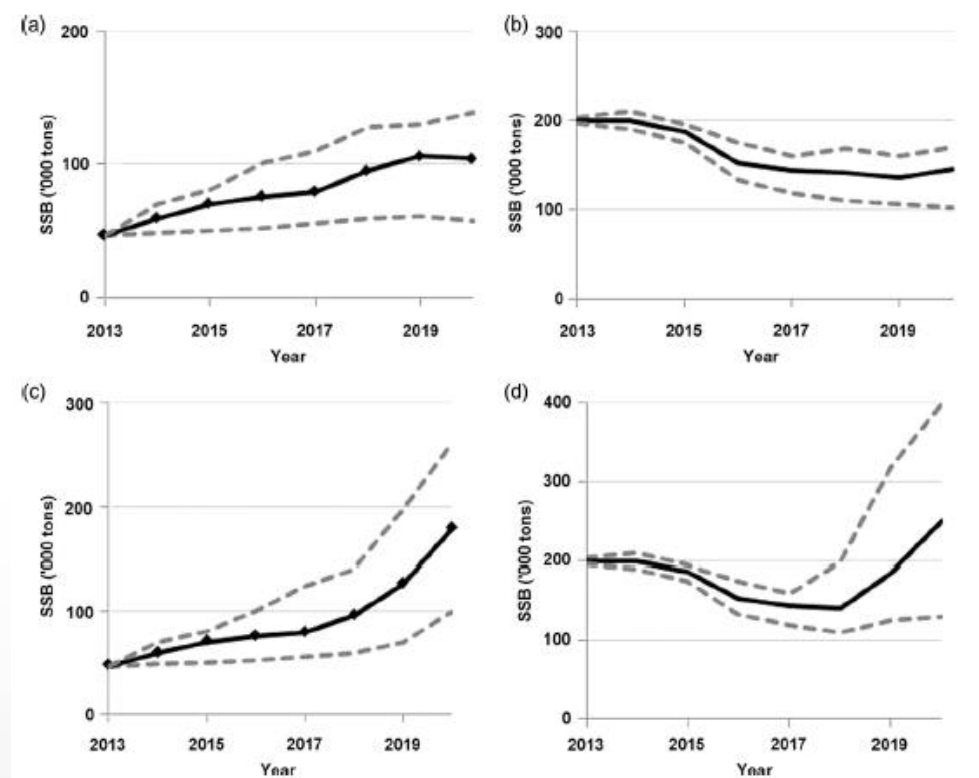
- A short run through the literature reveals that mostly we debate cost-efficiency
- Strong property rights – especially ITQ – should lead to ‚harvesting the available resources with the lowest costs‘
- In mixed fisheries we have already issues regarding quota distribution – how far does the available quota reflects the actual catch?
- Few examples of other forms of efficiency: energy consumption, GHG emissions, species flexibility

Efficiency in fisheries – mostly a cost-efficiency issue

- Example: Landing obligation in the EU – North Sea Saithe fishery

Scenario 1 (no flexibility in quota distribution): No improvement for saithe

Scenario 1: Losses for all fleets



Scenario 2 (flexibility in quota distribution):

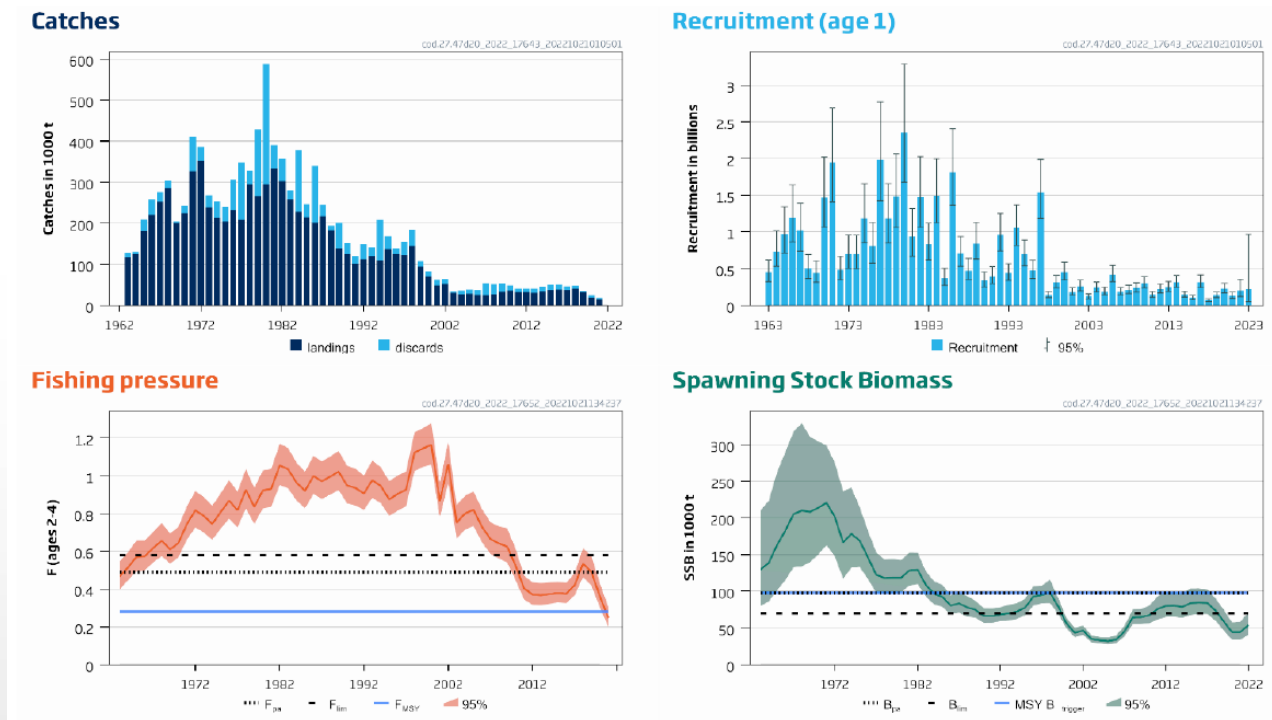
Improvement in both stocks

(Simons et al. 2015)

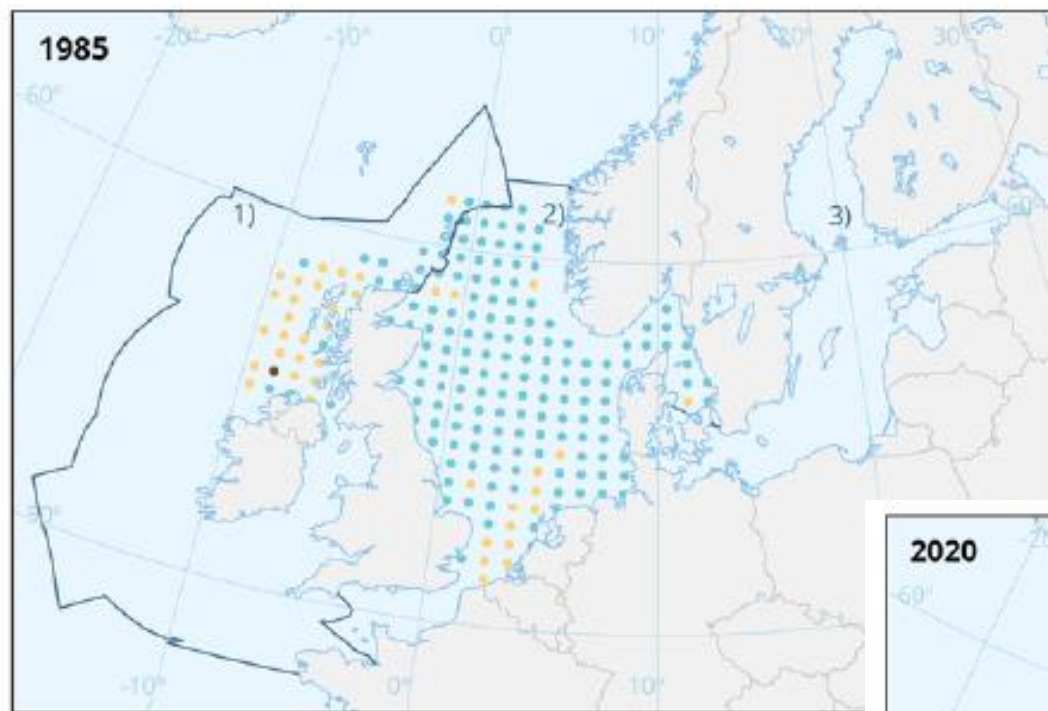
Scenario 2: Improvement in profits for all fleets

Times of crisis/Times of transition – The fishing sector need to adapt

- Northern movement of stocks – change in species distribution



North Sea cod (Source: ICES)



1985

- Dominance of Boreal species: ratio ≤ 1
- Dominance of Lusitanian species: ratio 1-2
- High dominance of Lusitanian species: ratio > 2

No management for new species yet!



Cuttlefish

Sea bass



2020

Times of crisis/Times of transition – The fishing sector need to adapt

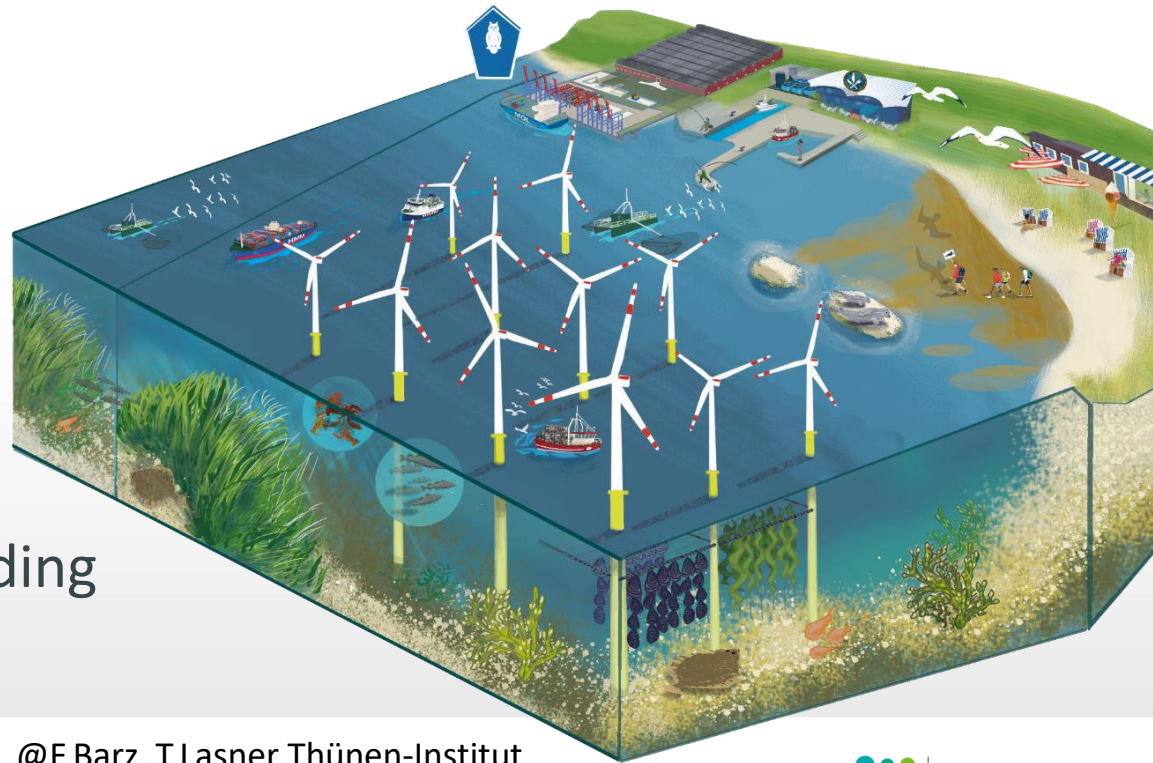
- Northern movement of stocks – change in species distribution
- Relative stability of quota distribution in the EU – problem especially for the landing obligation
- Germany has individual quota attached to the vessels and open ‚by-catch‘ quotas
 - Quota exchange between German vessel owners and with other countries seems to work quite well – but for how long?

Times of crisis/Times of transition – The fishing sector need to adapt

- However, changes in species distribution in the North Sea already demand adaptive measures of the fishing vessels (smaller vessels cannot reach fishing grounds further north or offshore)
- First vessels employing other kinds of fishing gear – pots instead of beam trawls in an unregulated fishery
- Problem: High uncertainty about the economic conditions over the next 10 years
 - Many fishers gave up or will probably give up soon

Development of Co-use options

- Space is more and more limited
- New species need often different kinds of fishing gear
- Flexibility necessary regarding species and fishing gears



Conclusions regarding today's property rights situation

- There is some flexibility in the quota distribution in the EU also under relative stability
- Seems not sufficient looking at the expected severe changes in ecosystems
- Strong property rights for specific species are only possible if exchanges with other countries will be possible and with low administrative burdens
- Especially for small-scale vessels TURFs may be a better options giving them flexibility

Thank you very much!



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