

# Strictly protected areas in the German Baltic Sea – challenges and state of the art

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Sven Gust

# Content

- Introduction
- Criteria for strict protection
- Challenges of implementing strictly protected areas
- Time schedule
- Summary



# Why do we regularly get confused on the targets? Indicators Climate crises vs Indicators Biodiversity Crises

Global surface temperature increase since 1850-1900 (°C) as a function of cumulative CO<sub>2</sub> emissions (GtCO<sub>2</sub>)

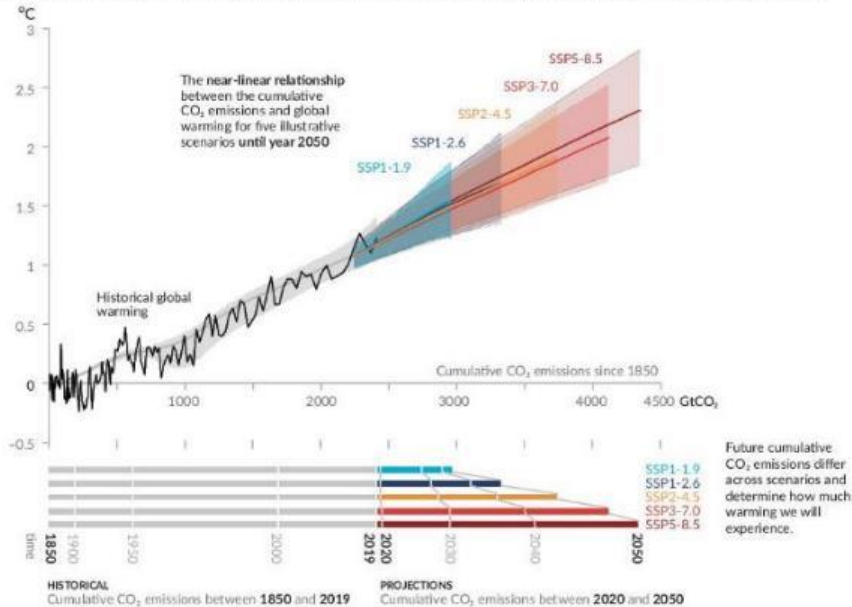
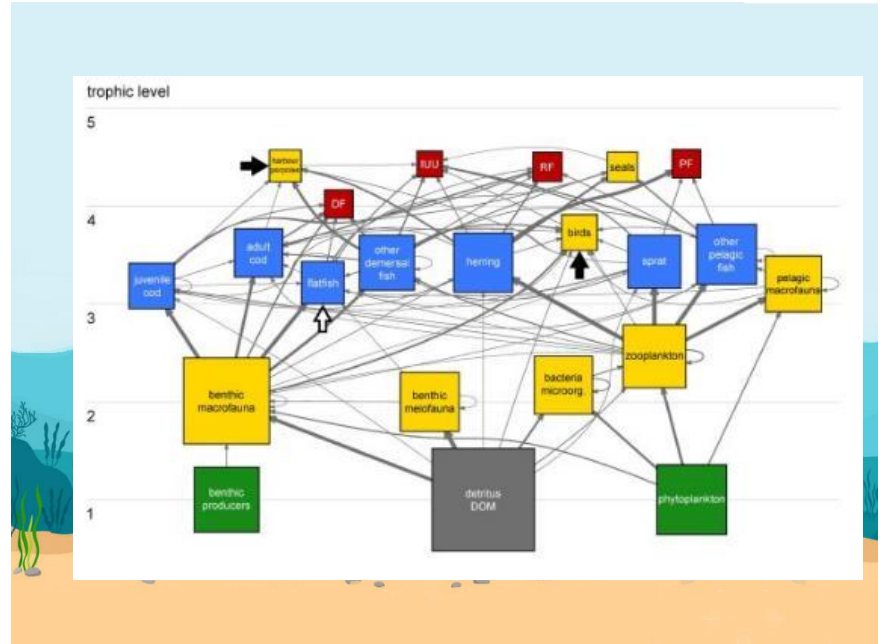
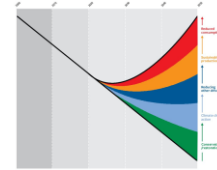
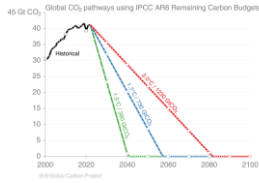


Figure SPM.10 | Near-linear relationship between cumulative CO<sub>2</sub> emissions and the increase in global surface temperature  
IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Keitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)].  
Marine Biogeographical Seminar Baltic Sea, Riga, 08. – 10.11.2023



Scotti M, [Opitz S](#), [MacNeil L](#), [Kreutle A](#), Pusch C and [Froese R](#) (2022): Ecosystem-based fisheries management increases catch and carbon sequestration through recovery of exploited stocks: The western Baltic Sea case study. *Front. Mar. Sci.* 9:879998. doi: 10.3389/fmars.2022.879998und HOLAS III

# Towards Achieving climate and biodiversity targets



- *Reduce our emissions of greenhouse gases*
- *Switch energy production to the production of renewable energies*
- *Dumping climate gases without harming the environment*

- *Sufficient energy transfer to the upper trophic levels*
- *species/individuals have sufficient undisturbed space*
- *Reduction in pressures on the whole food web*
- *Resilient ecosystems need Sufficient areas with naturally developing species communities*



## EU criteria for strict protection (10 %) (COM SWD (2022) 23)

- **Natural processes**
  - *essentially undisturbed*
  - *“independently of whether those pressures and threats are located inside or outside the strictly protected area”.*
  - *large enough*
  - *active management possible*
- Non-intervention areas
- activities that either do not interfere  
restoration and/or conservation*



# Conservation vs Disturbance

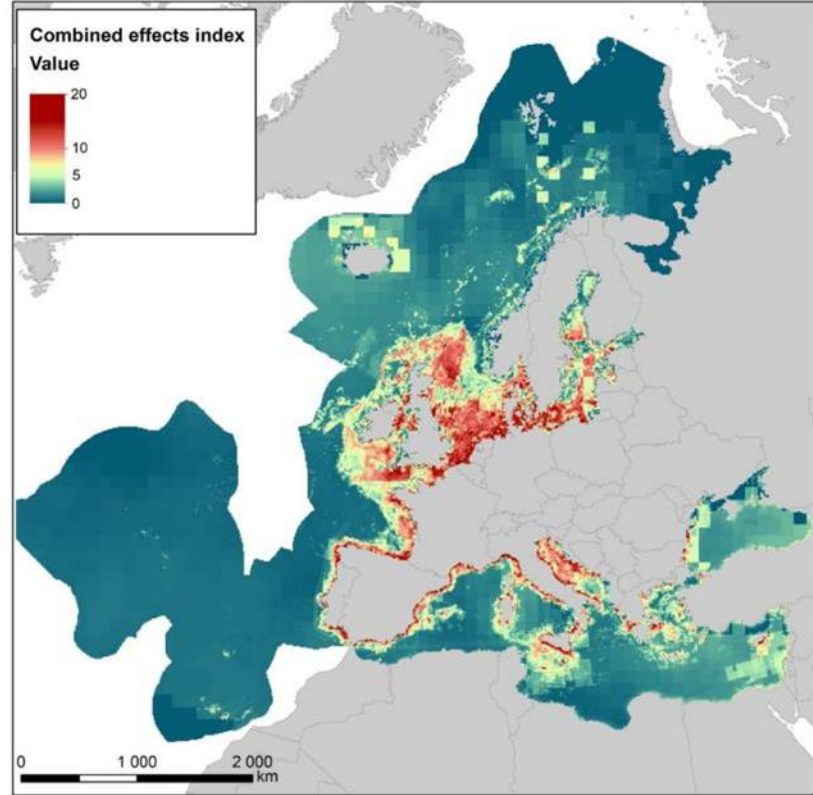
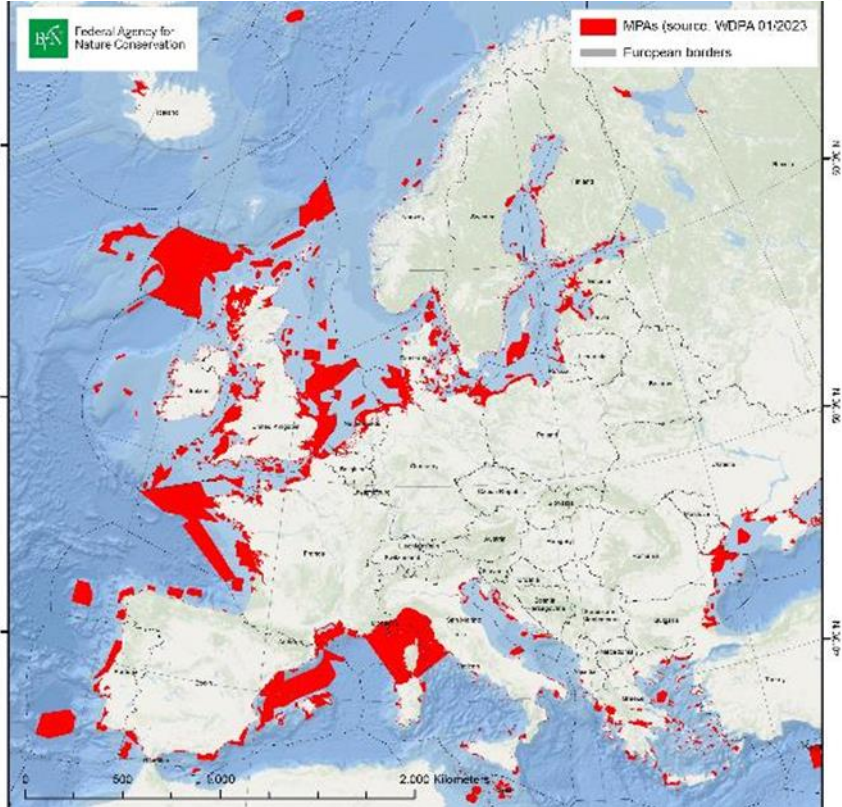
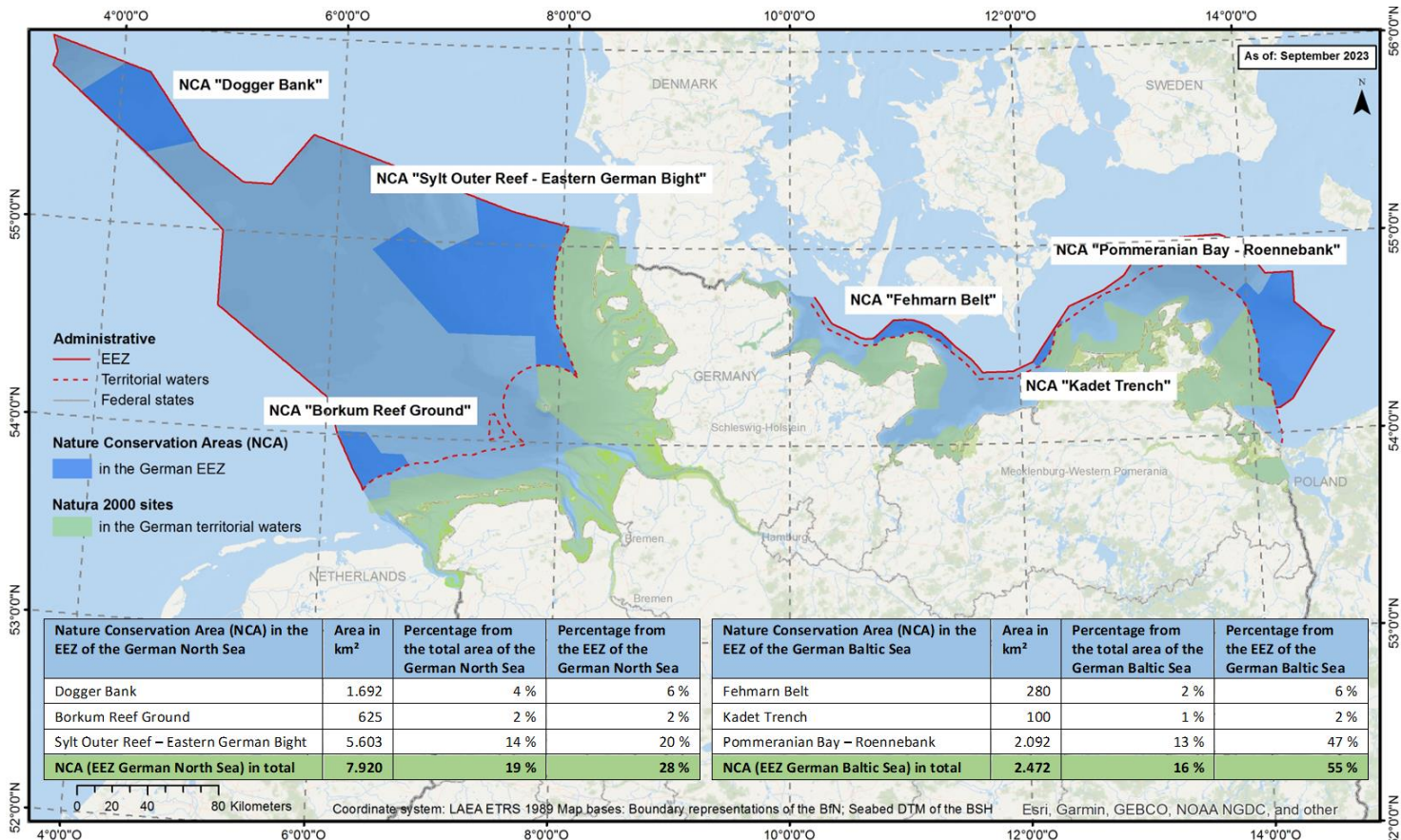


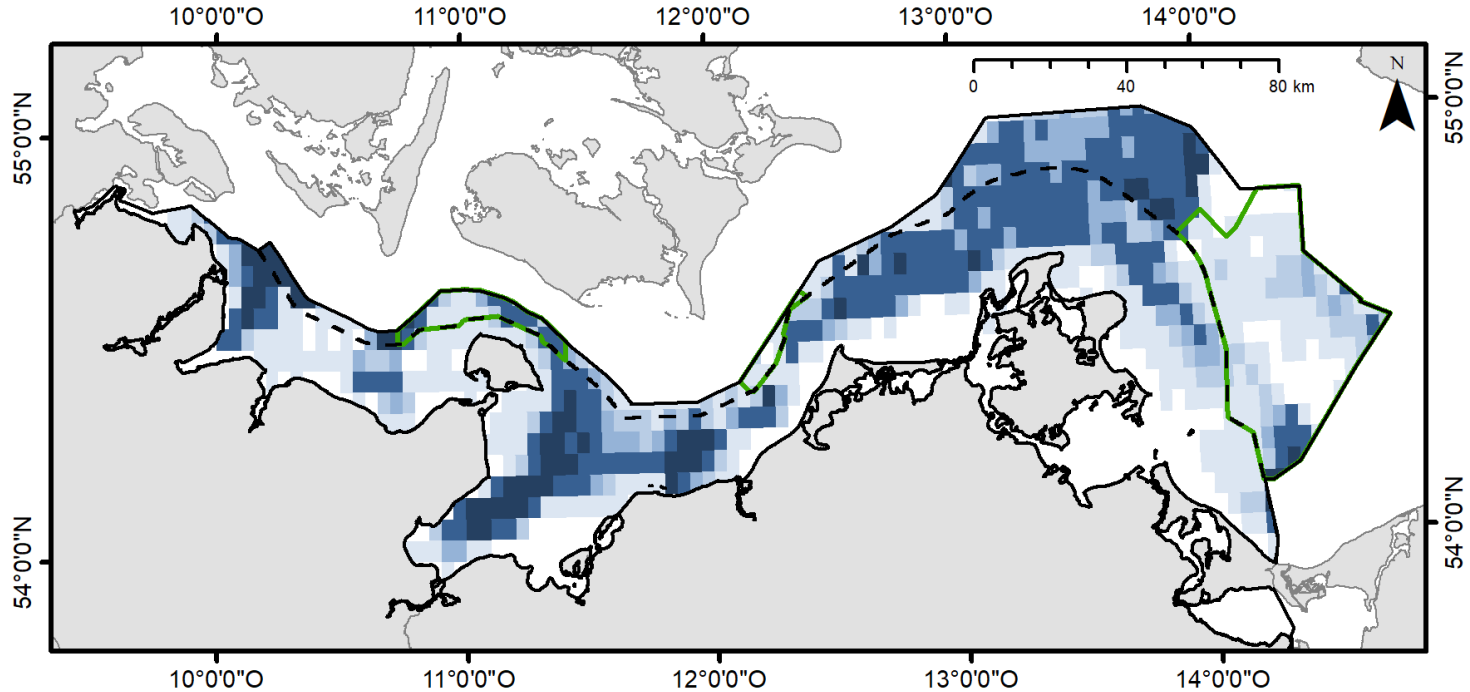
Fig. 1 Combined effects of anthropogenic pressures in Europe's seas. The marine area follows the European Environment Agency's delineation of the Marine Strategy Framework Directive assessment area

Samuli Korpinen, Leena Laamanen, Lena Bergstrom, Marco Nurmi, Jesper H. Andersen, Juuso Haapaniemi, E. Therese Harvey, Claran J. Murray, Monika Peterlin, Emilie Kallenbach, Katja Klancnik, Ulf Stein, Leonardo Tunesi, David Vaughan, Johnny Reker (2021): Combined effects of human pressures on Europe's marine ecosystems. *Ambio*, 50:1325–1336 <https://doi.org/10.1007/s13280-020-01482-x>





# Current situation in the German North and Baltic Sea



# Fisheries intensity 2019-2020 – Baltic Sea










## Grenzen

-  deutsche Meeresfläche
-  Meeresschutzgebiet
-  Küstenmeer
-  Landfläche

## Intensität grundber. Fischerei 2019-2020

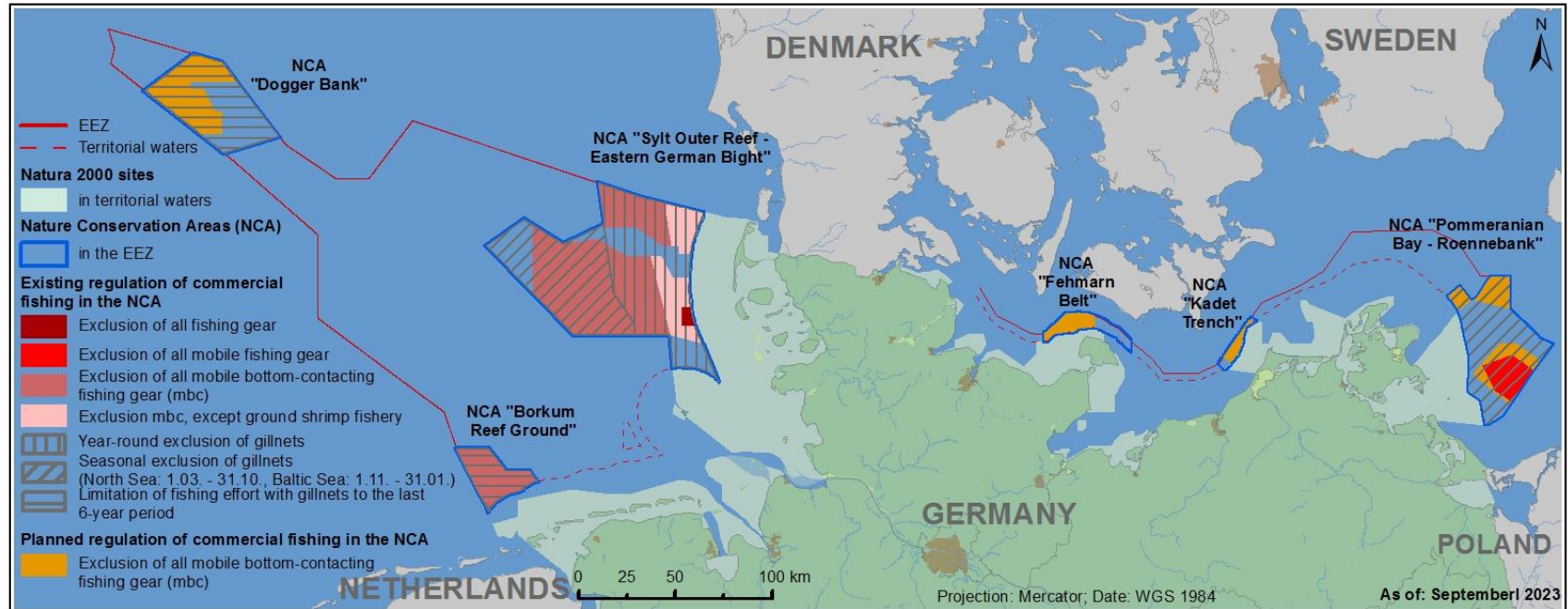
(Verhältnis geschleppter zu ungeschleppter Fläche)

-  keine Daten
-  > 0,33 - ≤ 0,67
-  > 1,00 - ≤ 3,00
-  0,00
-  > 0,67 - ≤ 1,00
-  > 3,00
-  > 0,00 - ≤ 0,33



# Challenges of implementing strictly protected areas

- **Use existing restrictions** (e.g. legislative act for the restriction of fishery activities from 8th March 2023)
- Exclusion of all other disturbances necessary, intersectoral coordination is needed



# Area shares of fisheries regulations in the German Baltic Sea EEZ



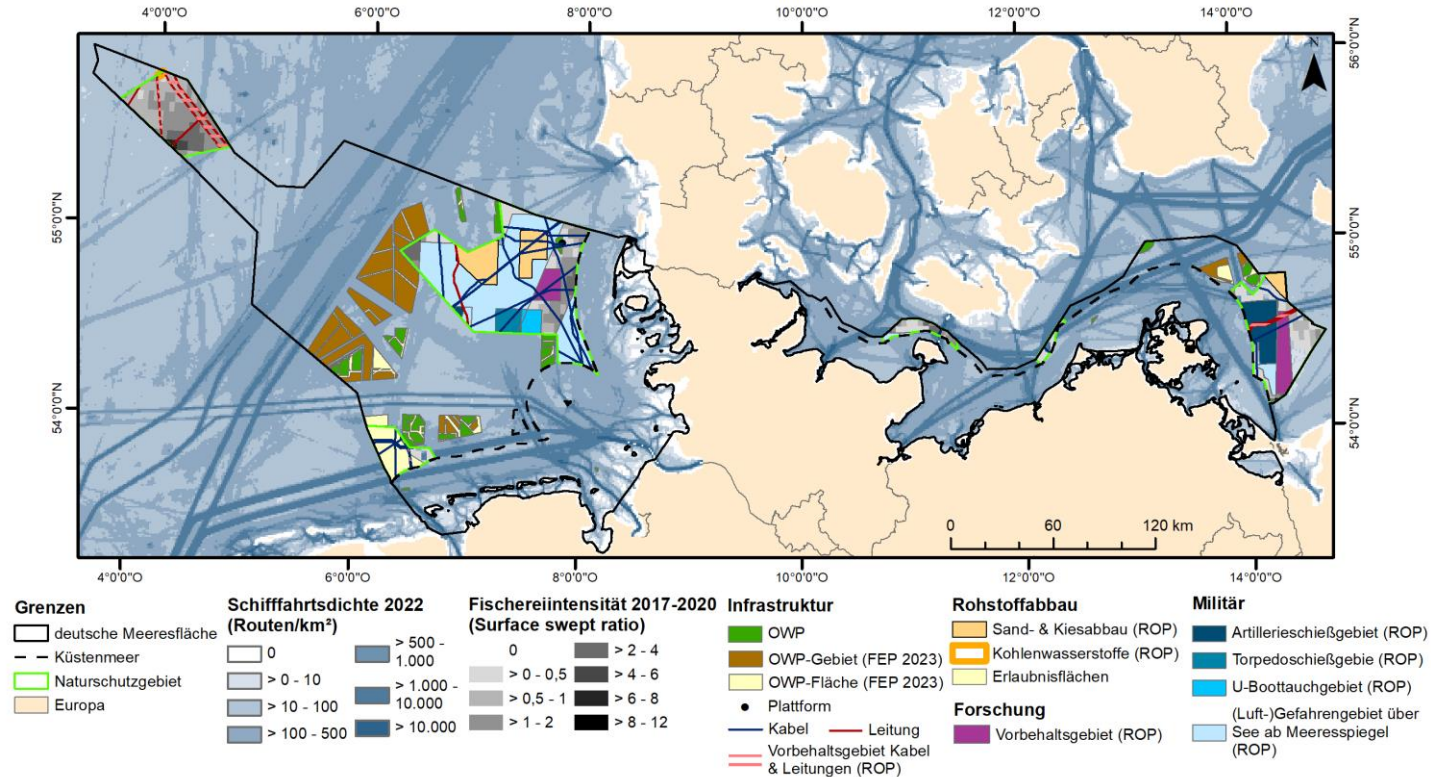
## Commercial fisheries

Measure	Percentage of German Baltic Sea EEZ MPAs	Percentage of German Baltic Sea EEZ	Percentage of German Baltic Sea
No mobile bottom contacting gear (SUBMITTED)	48 %	27 %	8 %
No mobile fishing gear (in place)	15 %	8 %	2 %
Seasonal exclusion of gill net fisheries (in place)	85 %	47 %	16 %
<b>No regulation</b>	5 %	47 %	82 %

## Recreational fishing

	Percentage of area with all year round exclusion	Percentage of area with seasonal exclusion	Percentage of area without regulations of recreational fishing
German Baltic Sea	9,8 %	0,2 %	90 %
German Baltic Sea EEZ	33,4 %	0,6 %	66 %

# Solutions with one sector may be not successful when dealing with all sectors



➤ Intensive use of the German North and Baltic Sea

# Challenges of implementing strictly protected areas



Pressure	Status	Disturbance intensity	Solution approaches
<b>Cables</b>	operating, increase expected with OWP expansion	Building: high Operating: low	adapt cable run, consider OWP buffer zones
<b>Pipelines</b>	operating	Installation: high Operating: low	no installation of new pipelines in 10 % areas
<b>Sand and gravel extraction</b>	Existing, plus areas according to Marine Spatial Planning	Extraction process: high	Adapt spatial plans, exclusion via approval processes
<b>Extraction of hydrocarbons/ mining</b>	No activities known at the moment	Search and extraction: high	Precautionary acquisition of relevant sites, withdrawal of mining permits (acc. to § 18 BBergG)
<b>Research</b>	Scientific activities in MPAs have to file a motion before conducting research, research areas included in marine spatial plans	low to medium	Adapt spatial plans, restrict research to non-invasive methods with respect to the criteria given in SWD (2022) 23
<b>Military use</b>	Military actions take place over and under the surface	medium to high	Check for alternative sites

# Challenges of implementing strictly protected areas

Pressure	Status	Disturbance intensity	Solution approaches
<b>Fisheries</b>	<p><b>Gill net fisheries:</b> Saisonal restriction already in place in some areas</p> <p><b>Mobile bottom-contacting gear:</b> legislative act for the restriction of fishery activities from in place → restricted to North Sea MPAs, Baltic Sea in preparation</p> <p><b>Pelagic fisheries:</b> Only partly restricted (e.g. Oderbank) but no sufficient limitations in all other MPAs</p> <p><b>Recreational fishing:</b> Partly forbidden in all EEZ MPAs</p>	<p>Medium to high</p>	<p>Full exclusion of all fisheries, coordinated actions for all fishery activities, taking into account and acting according to the <b>EU Action Plan</b> (Protecting and restoring marine ecosystems for sustainable and resilient fisheries) and the <b>objectives of the EU Biodiversity strategy:</b></p> <ul style="list-style-type: none"> <li>- Development of a joint recommendation with all government departments in charge to ban all fisheries from strictly protected areas , including gill net fisheries and bottom-contacting gear according to the Action Plan</li> <li>- Agreement with neighbouring states</li> <li>- Submission of a common recommendation to EU COM</li> </ul>
<b>Shipping</b>	<p>Almost everywhere, with areas accounted as major shipping lanes in spatial planning</p>	<p>high</p>	<p>regulation only possible on international level, e.g. IMO-proposal for areas to be avoided (ATBA) Rerouting, pooling of shipping lanes</p>

# Summary

- Germany has not pledged any areas for the 10 % target yet
  - National process still ongoing (expert group)
  - Actions to regulate pressures are needed
  - But: **there are possibilities!**



