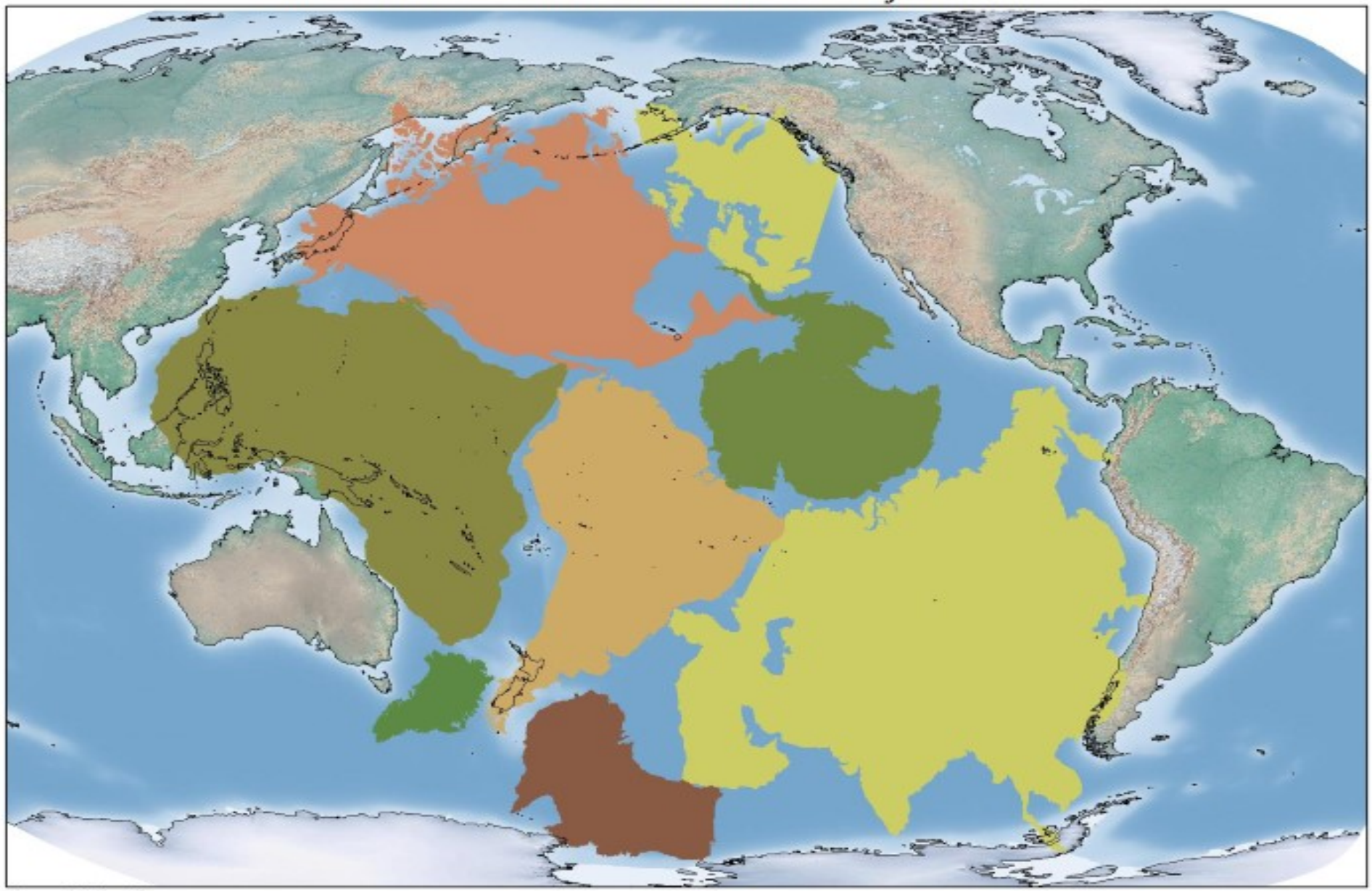
HIGH LEVEL PANEL *for*
A SUSTAINABLE
OCEAN ECONOMY

Towards A Sustainable Ocean Economy

Maritime Clean Tech Annual Conference
28 November 2019

The Continents and Greenland in the Pacific Ocean

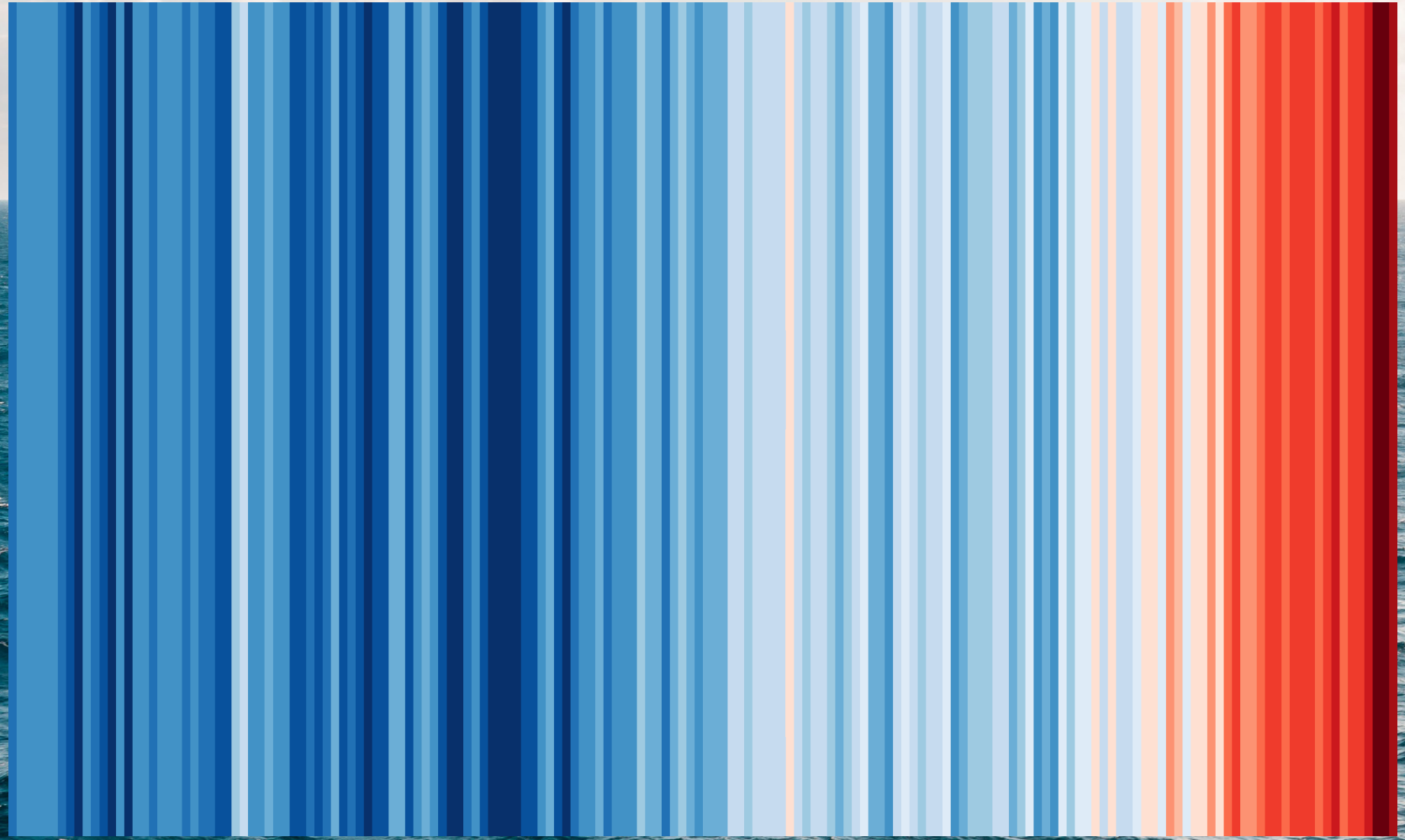


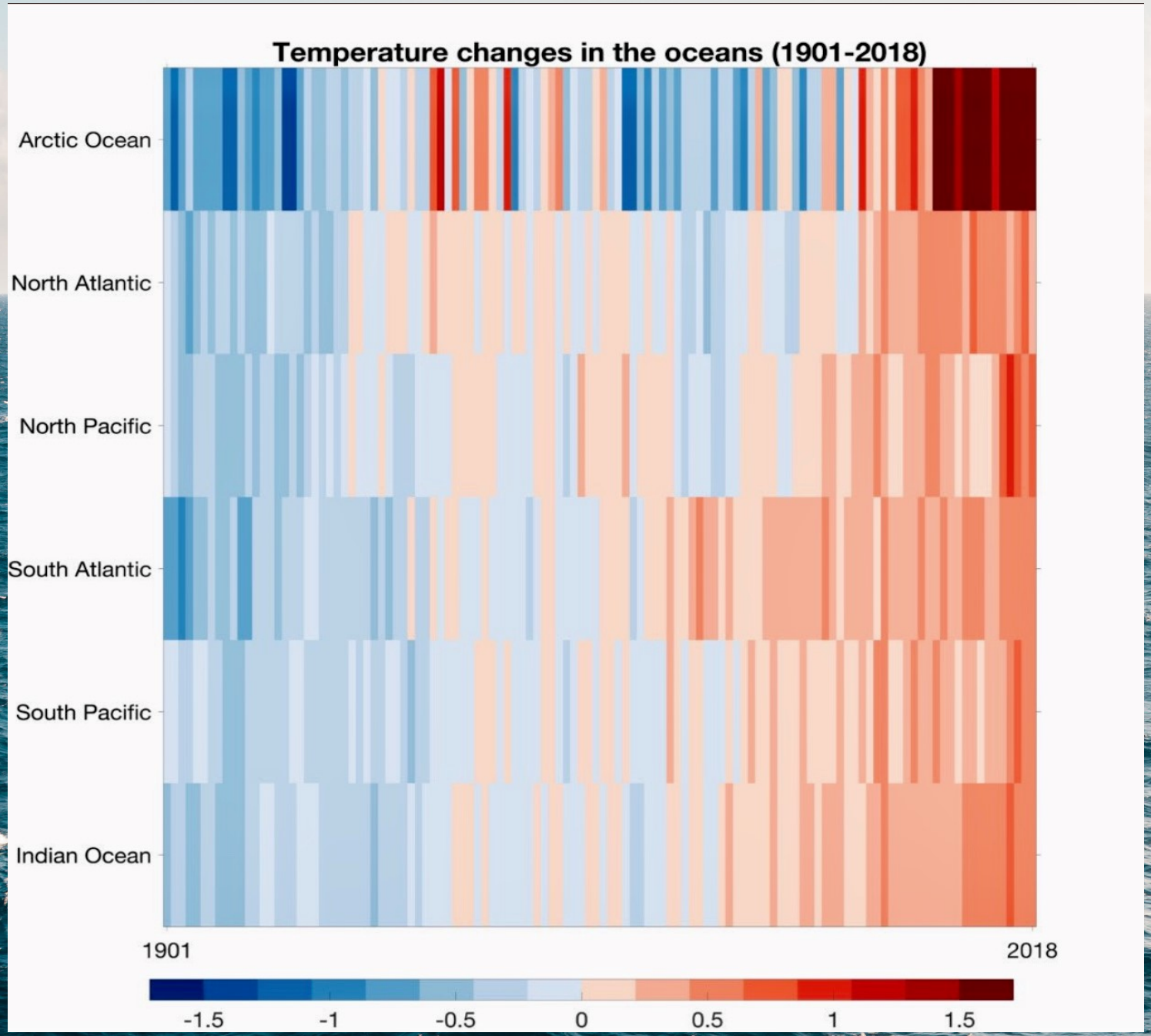
Basemap Projection: Robinson
Continents & Greenland Projection: Fuller

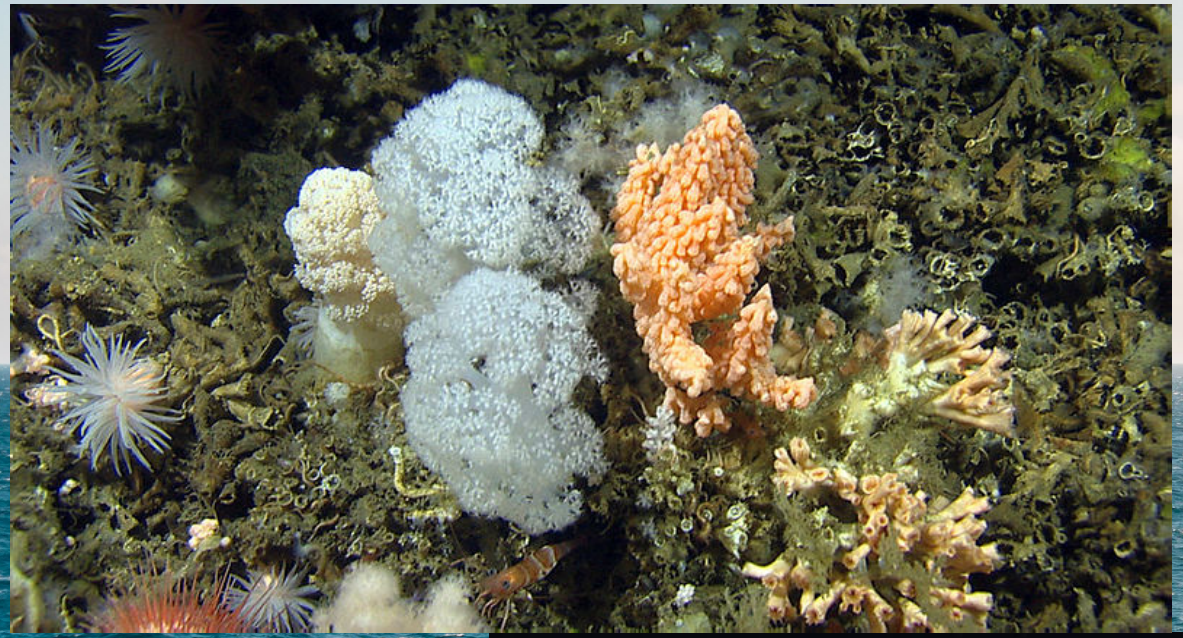
Scale- 1:86,000000

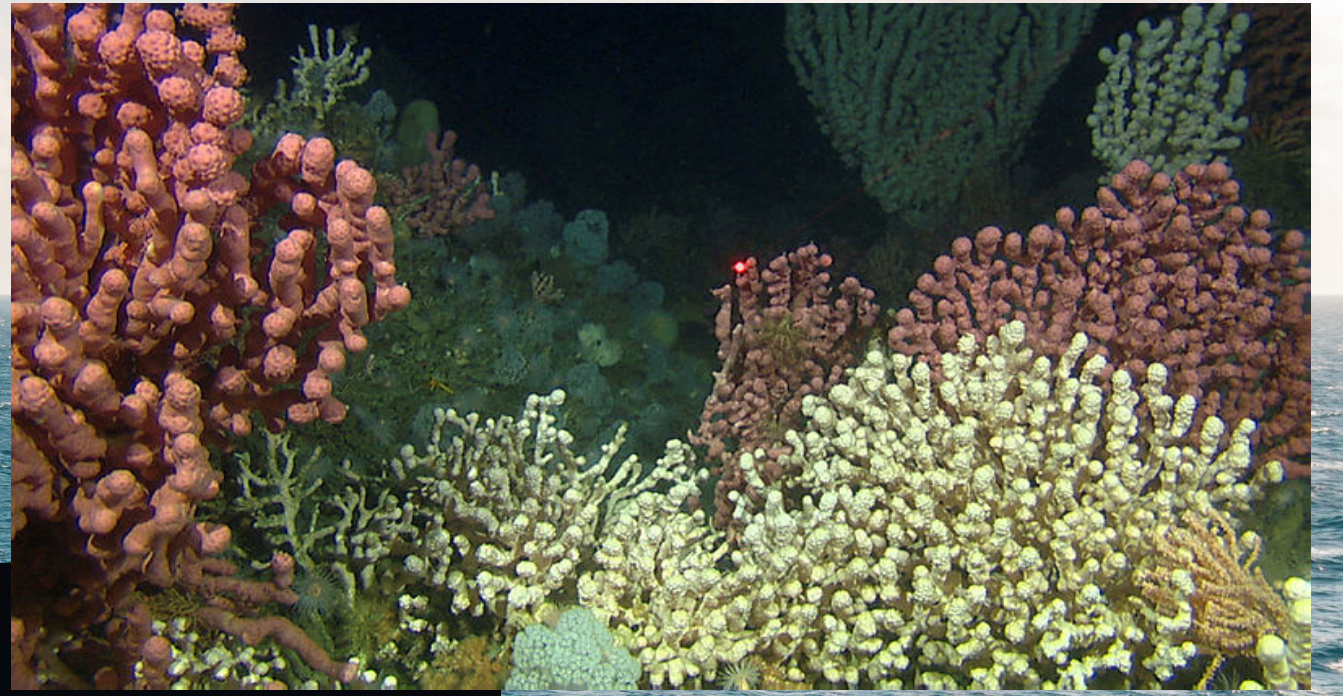
Map Credit: Chris Stephens

Data Source: NaturalEarthData.com




Temperature changes in the oceans (1901-2018)
Arctic Ocean
North Atlantic
North Pacific
South Atlantic
South Pacific
Indian Ocean
1901
2018
-1.5
-1
-0.5
0
0.5
1
1.5





Yellow Croaker

(Johnius spp.)


Vattenkikar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The Ocean as a Solution to Climate Change
Five Opportunities for Action
CONVENING LEAD AUTHOR
Ove Hoegh-Guldberg
EXPERT AUTHORS:
Ken Caldeira, Thierry Chopin, Steve Gaines, Peter Haugan, Mark Hemer, Jennifer Howard, Manaswita Konar, Dorte Krause-Jensen, Elizabeth Lindstad, Catherine E. Lovelock, Mark Michelin, Finn Gunnar Nielsen, Eliza Northrop, Robert Parker, Joyashree Roy, Tristan Smith, Shreya Some, and Peter Tyedmers
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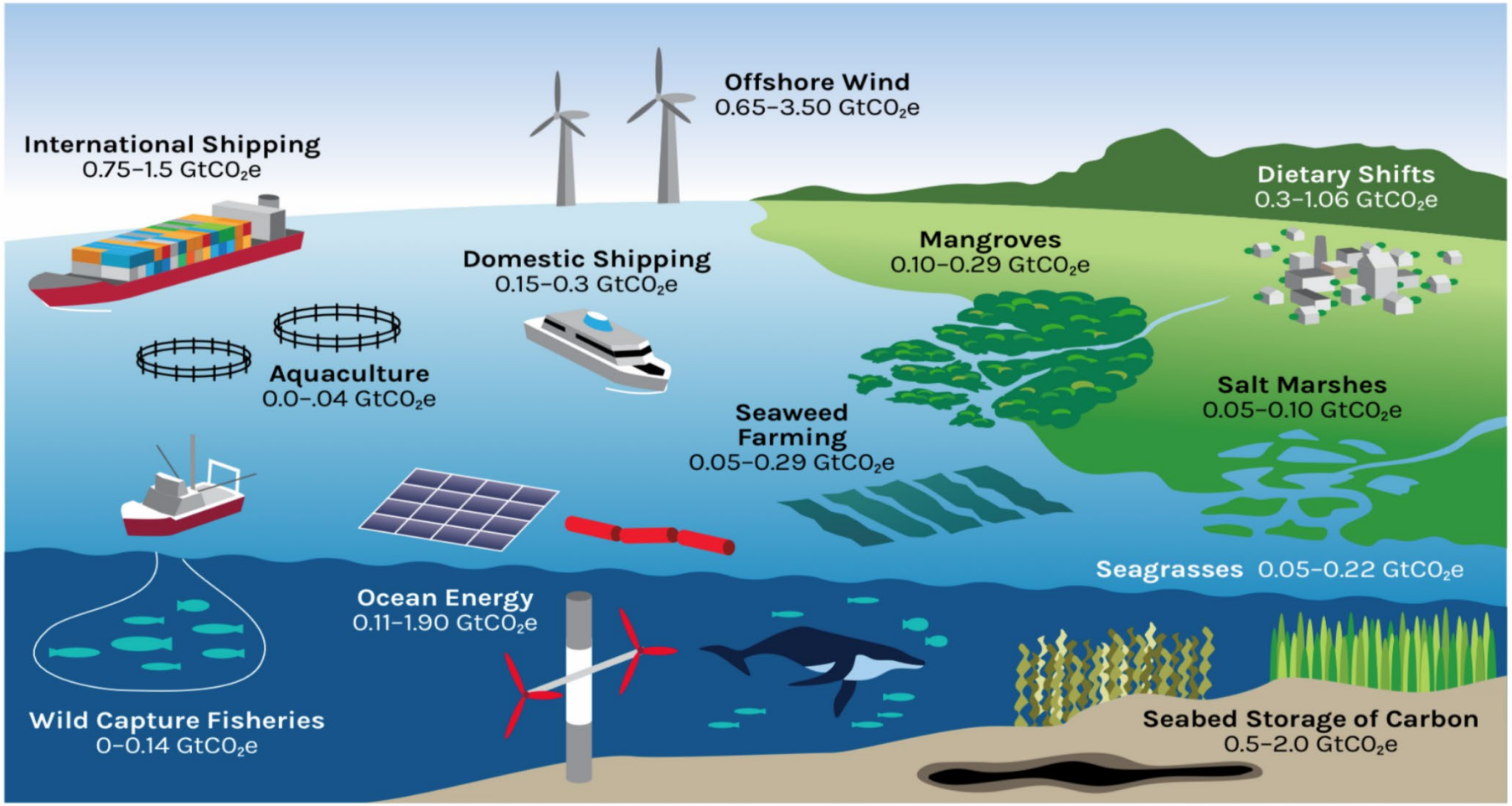
Figure ES-1. Ocean-based Mitigation Options Explored in This Report and Associated Annual Mitigation Potential in 2050

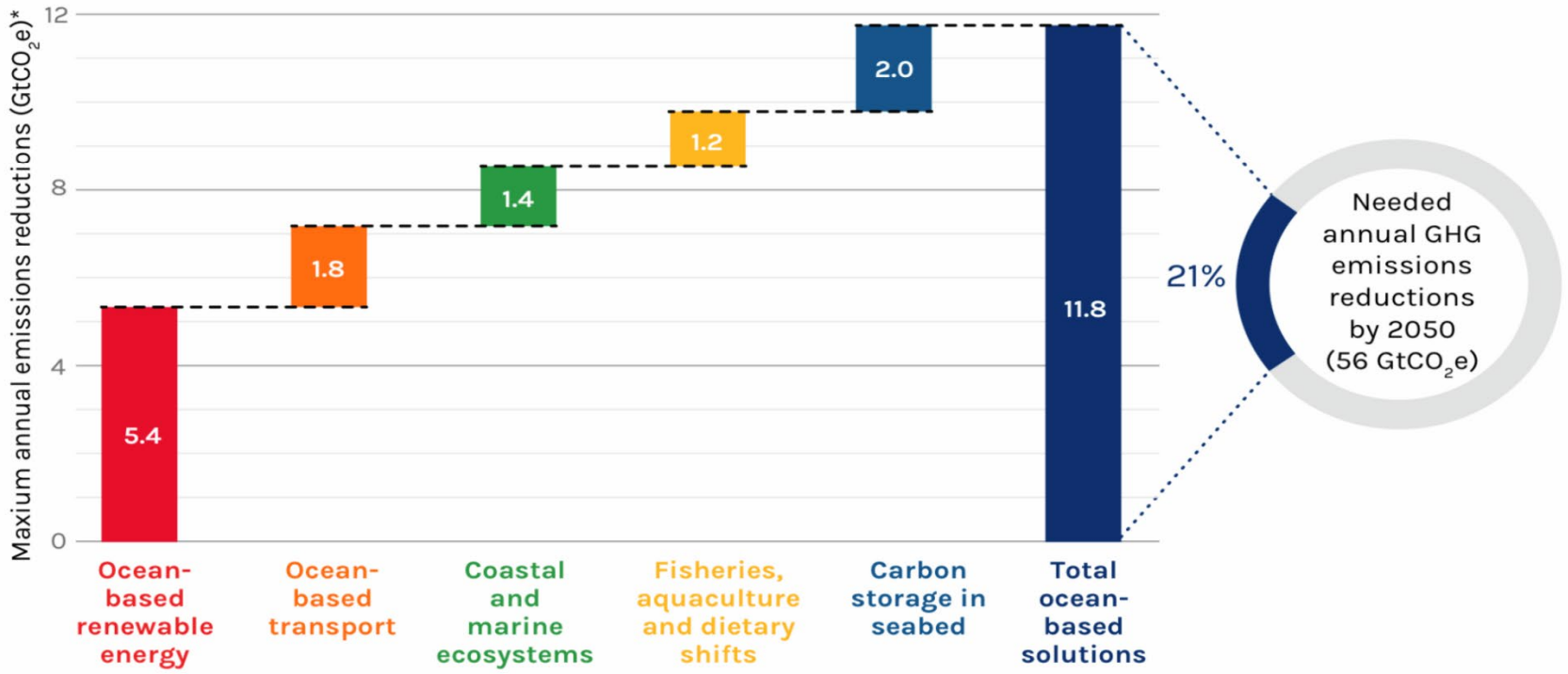


Source: Authors

*Notes: * To stay under a 1.5°C change relative to pre-industrial levels*

Source: Authors

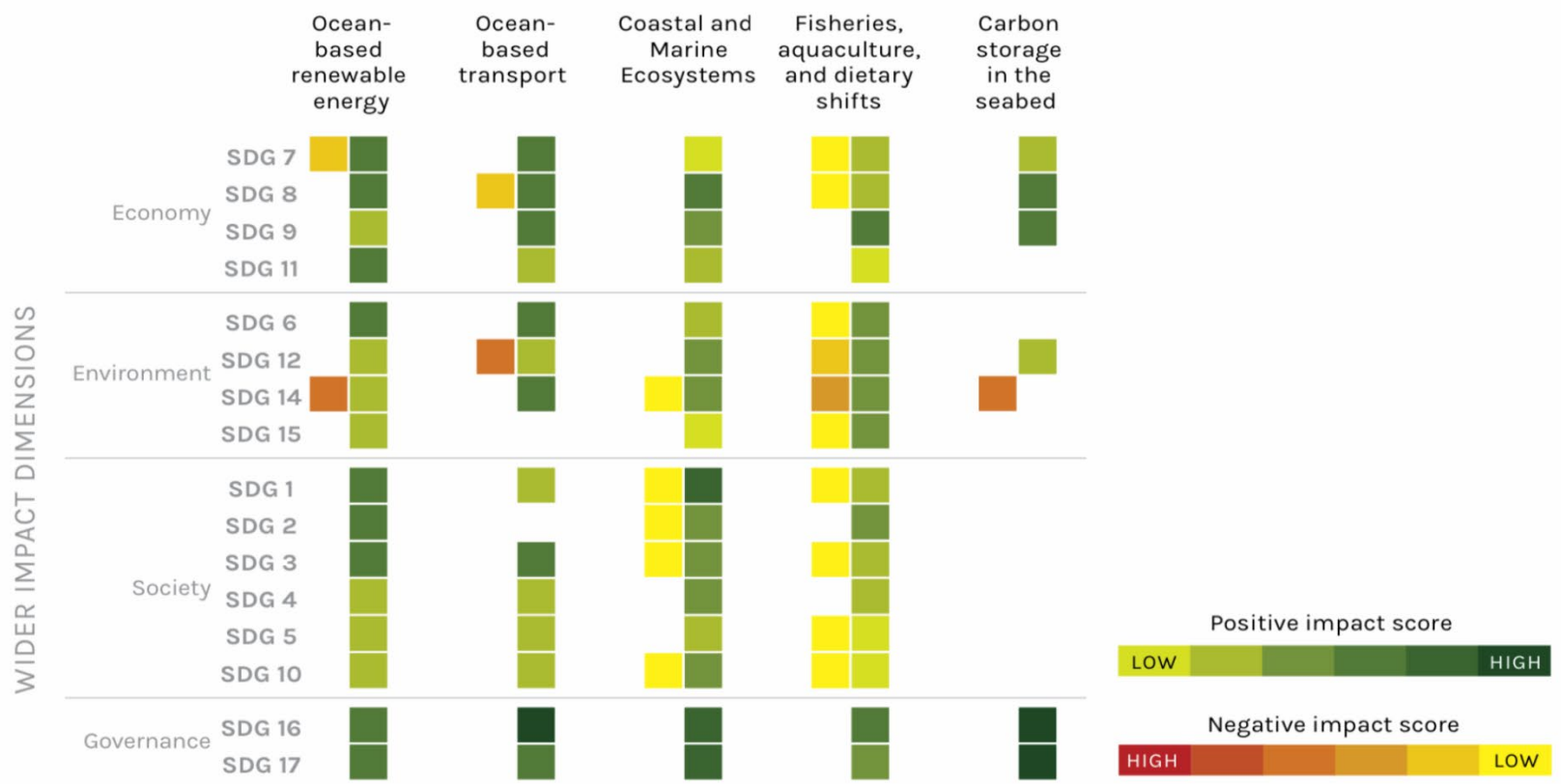
Figure ES-4. Contribution of Five Ocean-based Climate Action Areas to Mitigating Climate Change in 2050 (Maximum $GtCO_2e$)



*Notes: * To stay under a 1.5°C change relative to pre-industrial levels*

Source: Authors

Figure ES-5. Summary of Wider Impact of Ocean-based interventions on Sustainable Development Dimensions



List of Sustainable Development Goals reviewed:

Source: Authors

Notes: Wider-impact dimensions cover various sustainable development dimension indicators as well as 2030 Sustainable Development Goals (SDG). The figure shows the relative strength of the relationship between the ocean-based areas of interventions and the SDGs. The relationship between each ocean-based mitigation option and SDG is given a linkage score, positive scores shown by green boxes and negative scores shown by yellow/red boxes. Scores range from +3 (indivisible) to −3 (cancelling) (Nilsson et al. 2016). A zero score (no bar and no colour) means no impact was found in this review of the literature. For intervention areas where there is more than one mitigation option, an average of the linkage score is taken among the mitigation options in that area. Further information on the linkage scores and the associated confidence levels are provided in the Annex.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HIGH LEVEL PANEL for
A SUSTAINABLE
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BLUE PAPER
The Future of
Food from the Sea
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Wild catch + 20% (+ 40%)

Mariculture x 6

Bivalves and seaweed x even more

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“Major strategic global policy shifts” required

End overfishing

Massively invest in non-fed mariculture

Identify and scale new feed alternatives for fed species

Proper ocean and fisheries management

Effective action on climate and pollution

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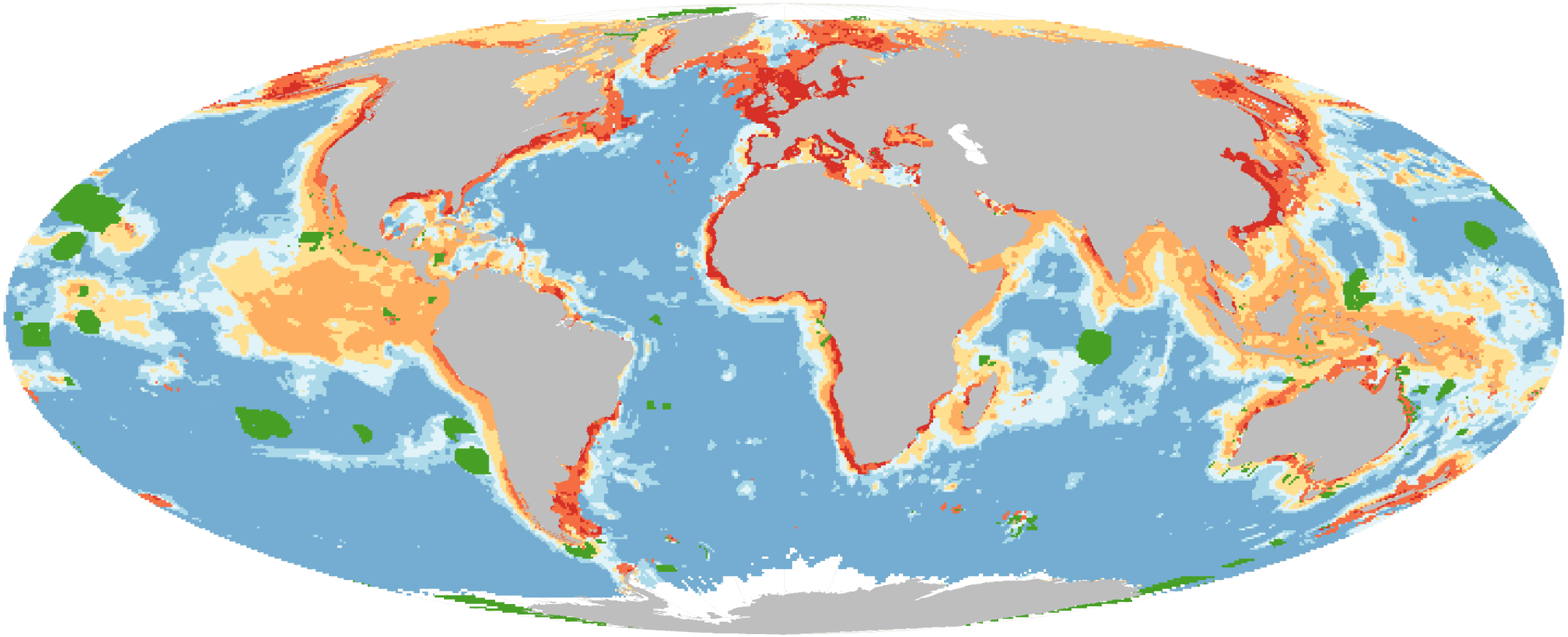
Emerging insights

Climate, biodiversity, food production

Carbon



Top % of the Ocean

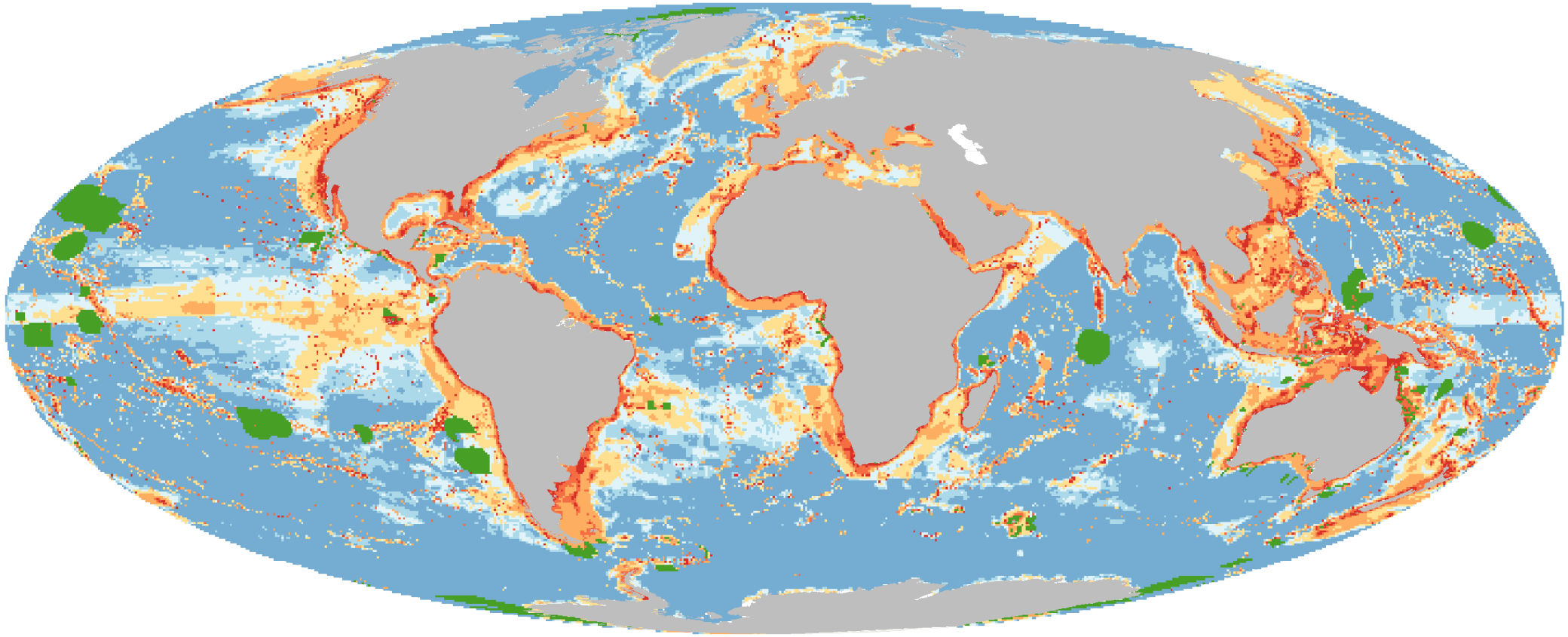
0 5 10 20 30 40 50

Fully protected areas

Current protected areas represented in green

https://media.treehugger.com/assets/images/2011/10/china20trawler20shrimp.jpg

Biodiversity



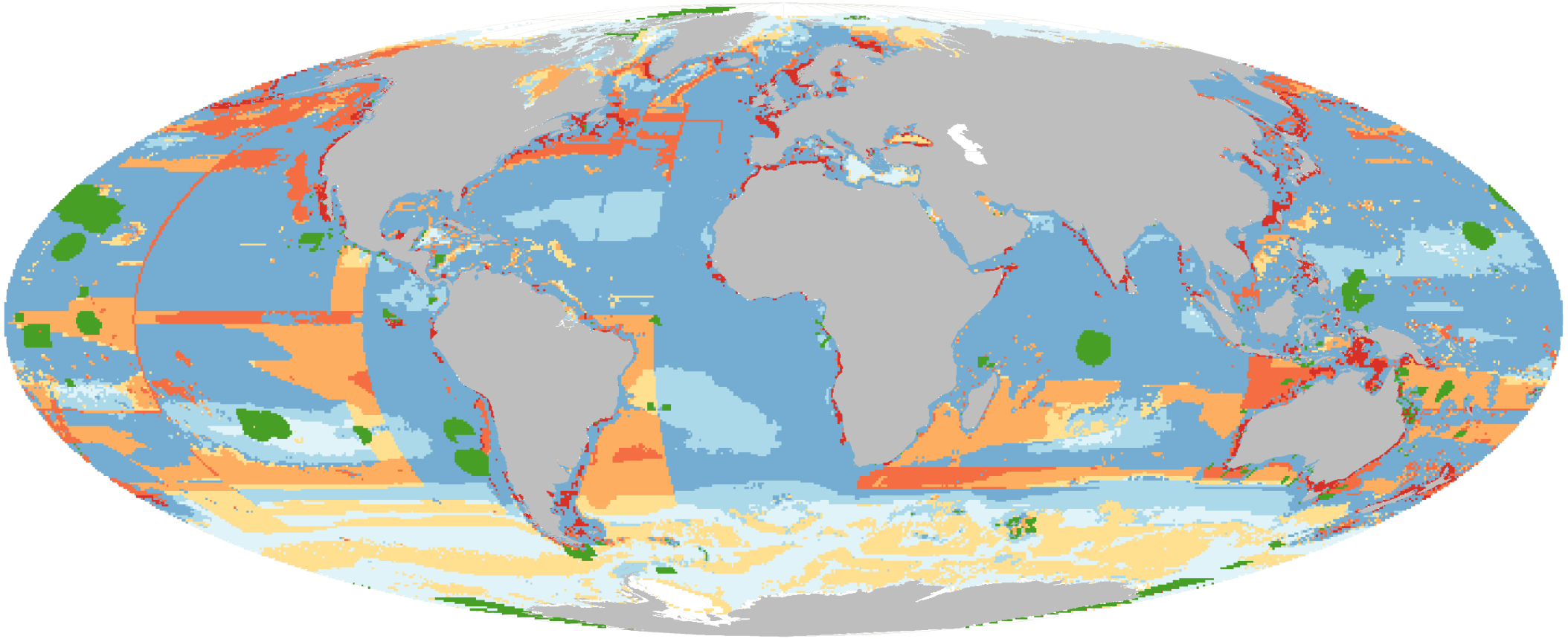
Top % of the Ocean

0 5 10 20 30 40 50

Fully protected areas

Current protected areas represented in green

Food production



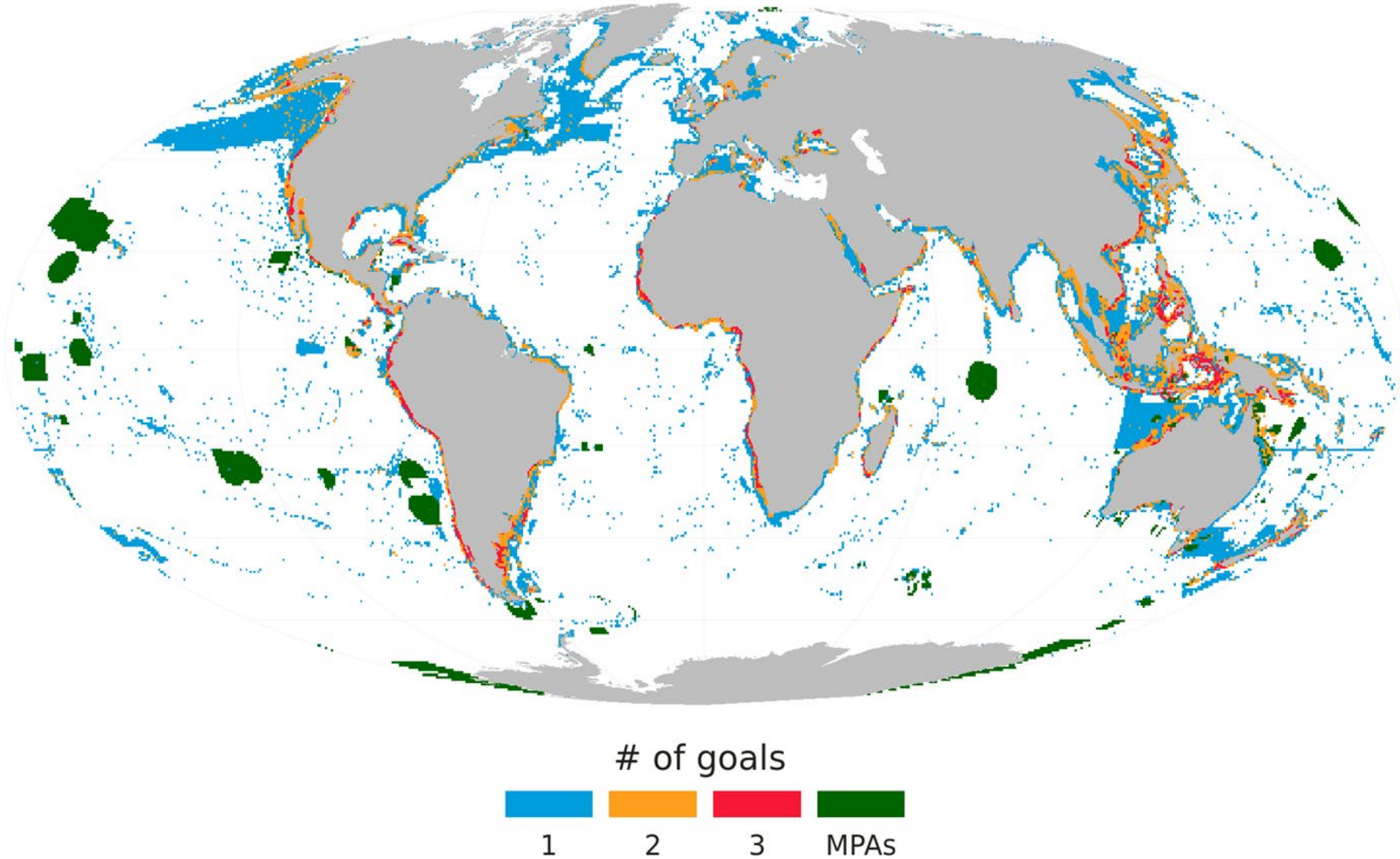
Top % of the Ocean

0 5 10 20 30 40 50

Fully protected areas

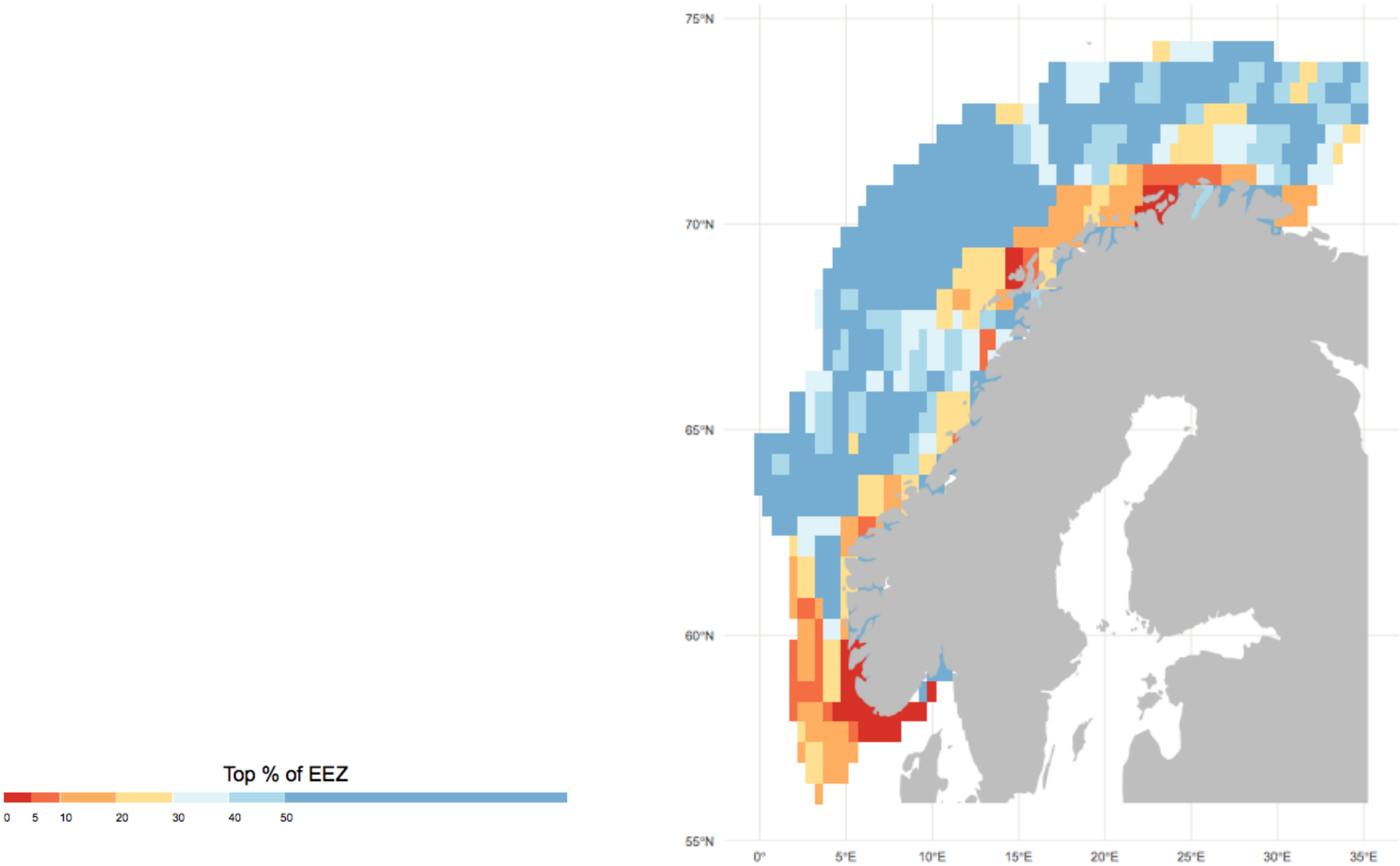
Current protected areas represented in green

B. Overlap of goals (top 10%)



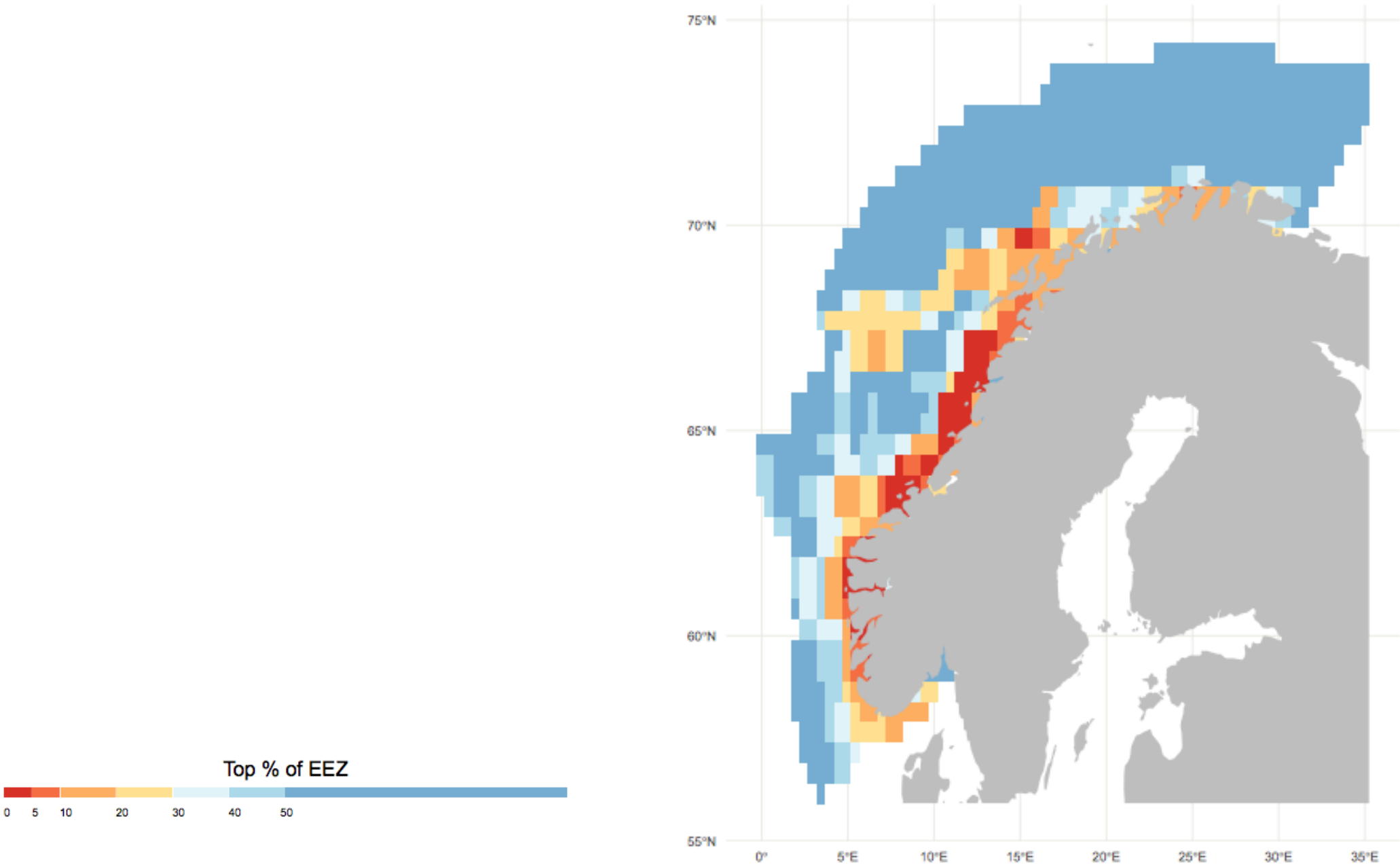
Carbon Conservation Priorities

Norway



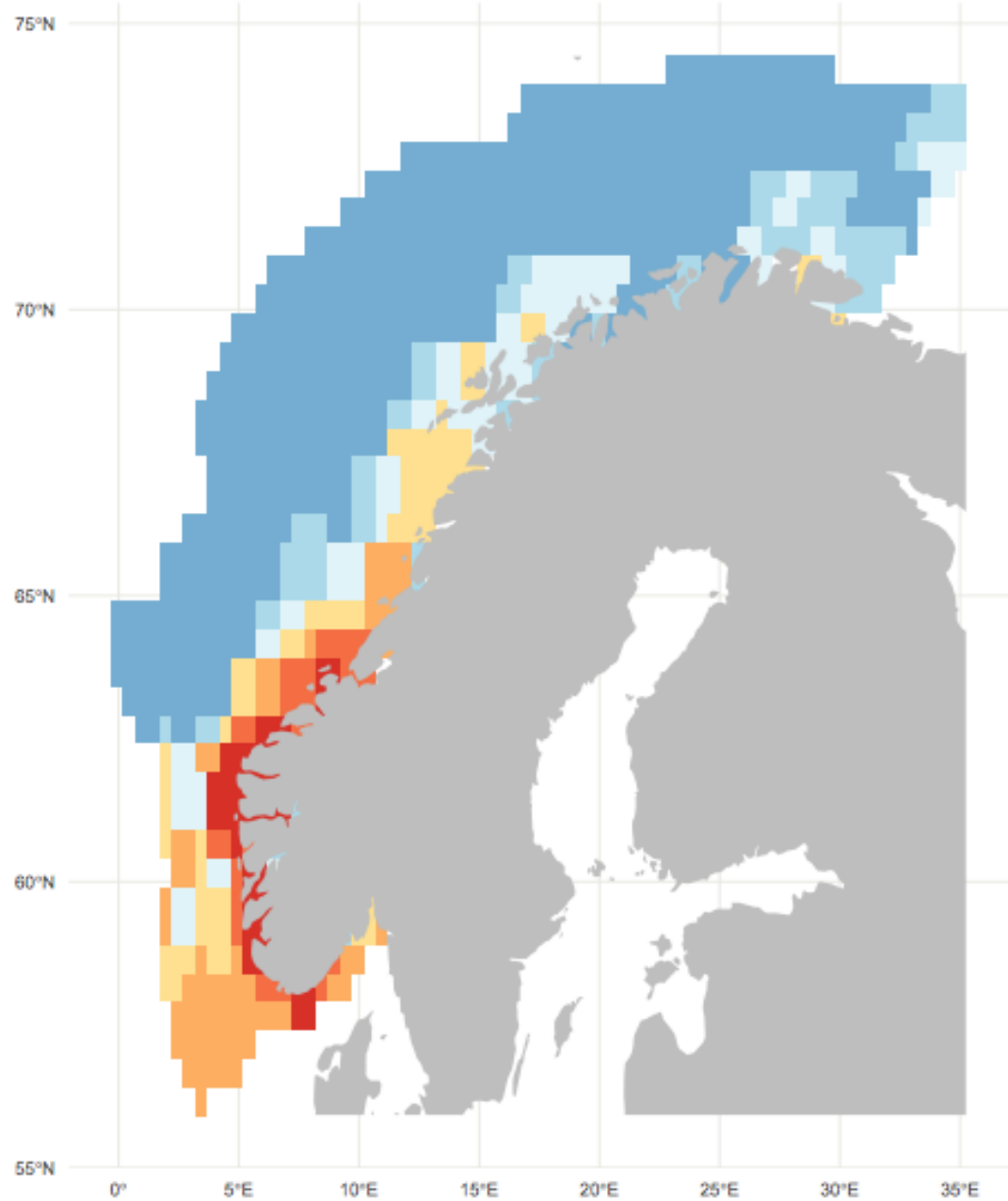
Biodiversity Conservation Priorities

Norway



Food Provision Conservation Priorities

Norway



Top % of EEZ

0 5 10 20 30 40 50