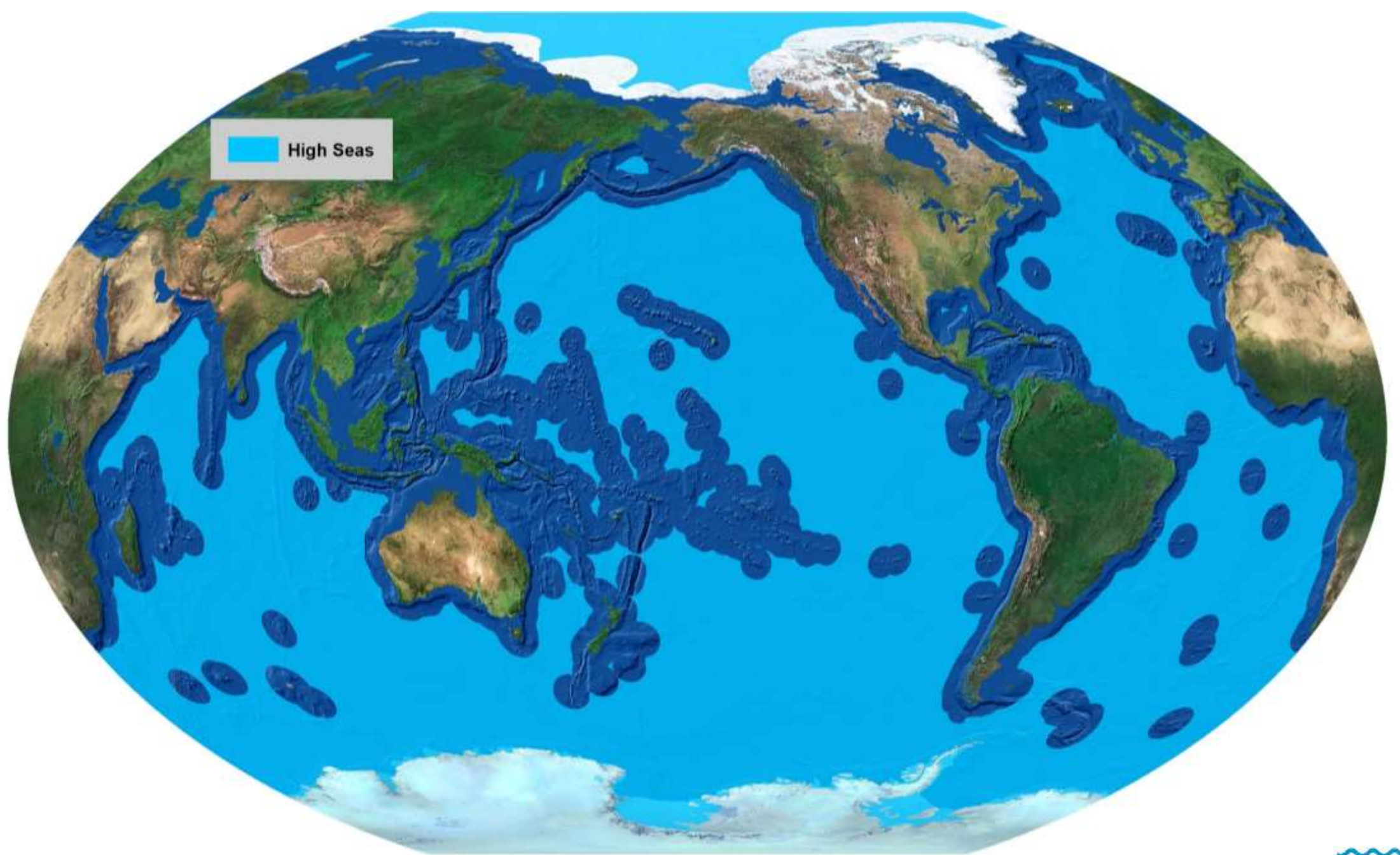


Navigating the high seas: towards a new UN treaty to protect the forgotten half of the planet

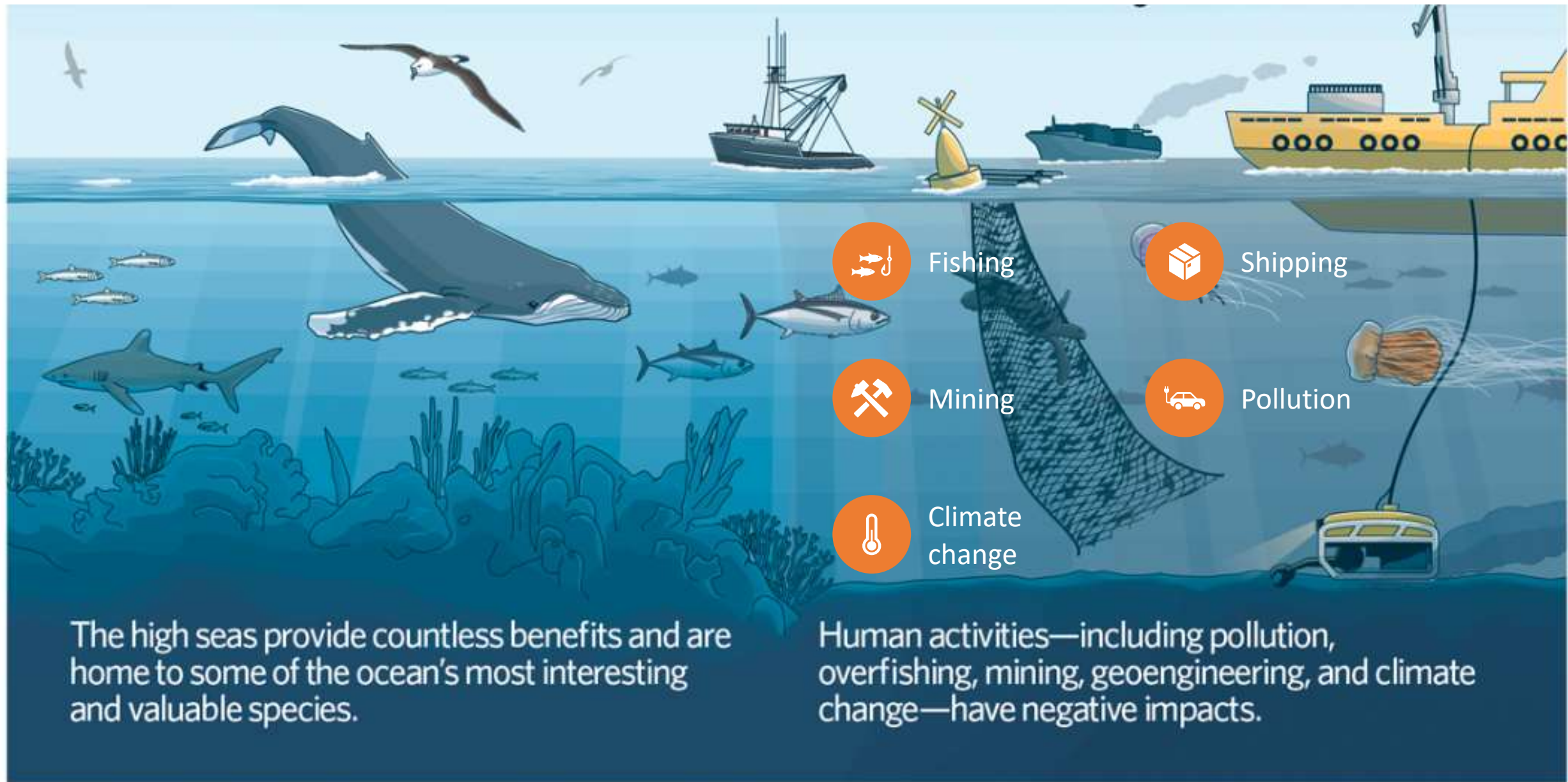
Kristina Gjerde, Senior High Seas Advisor, IUCN Global Marine and Polar Programme

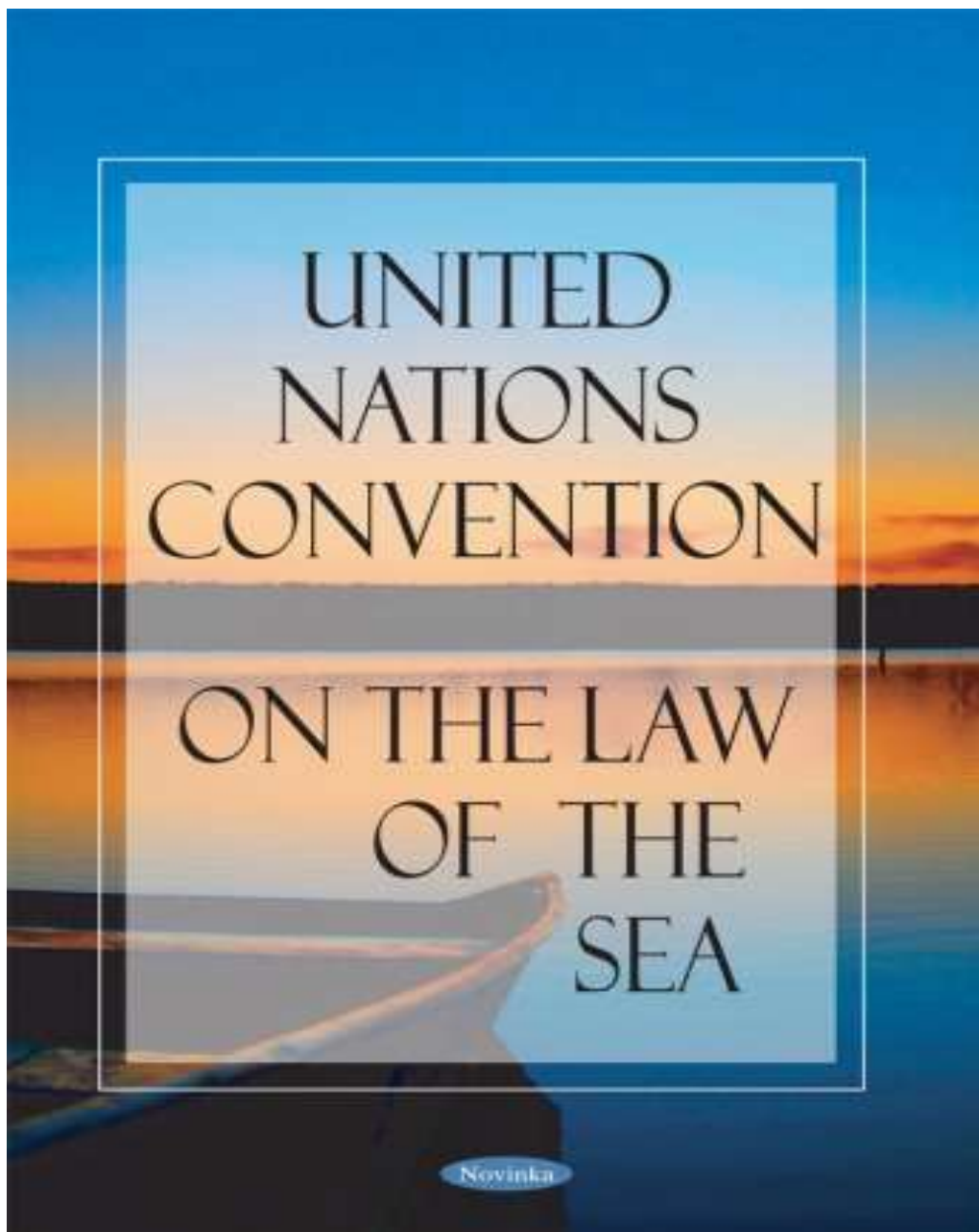
Adjunct Professor, Middlebury Institute of International Studies at Monterey, CA

Earth Journalism Network
Navigating the High Seas: a deep dive for journalists
Webinar Wednesday 16 February



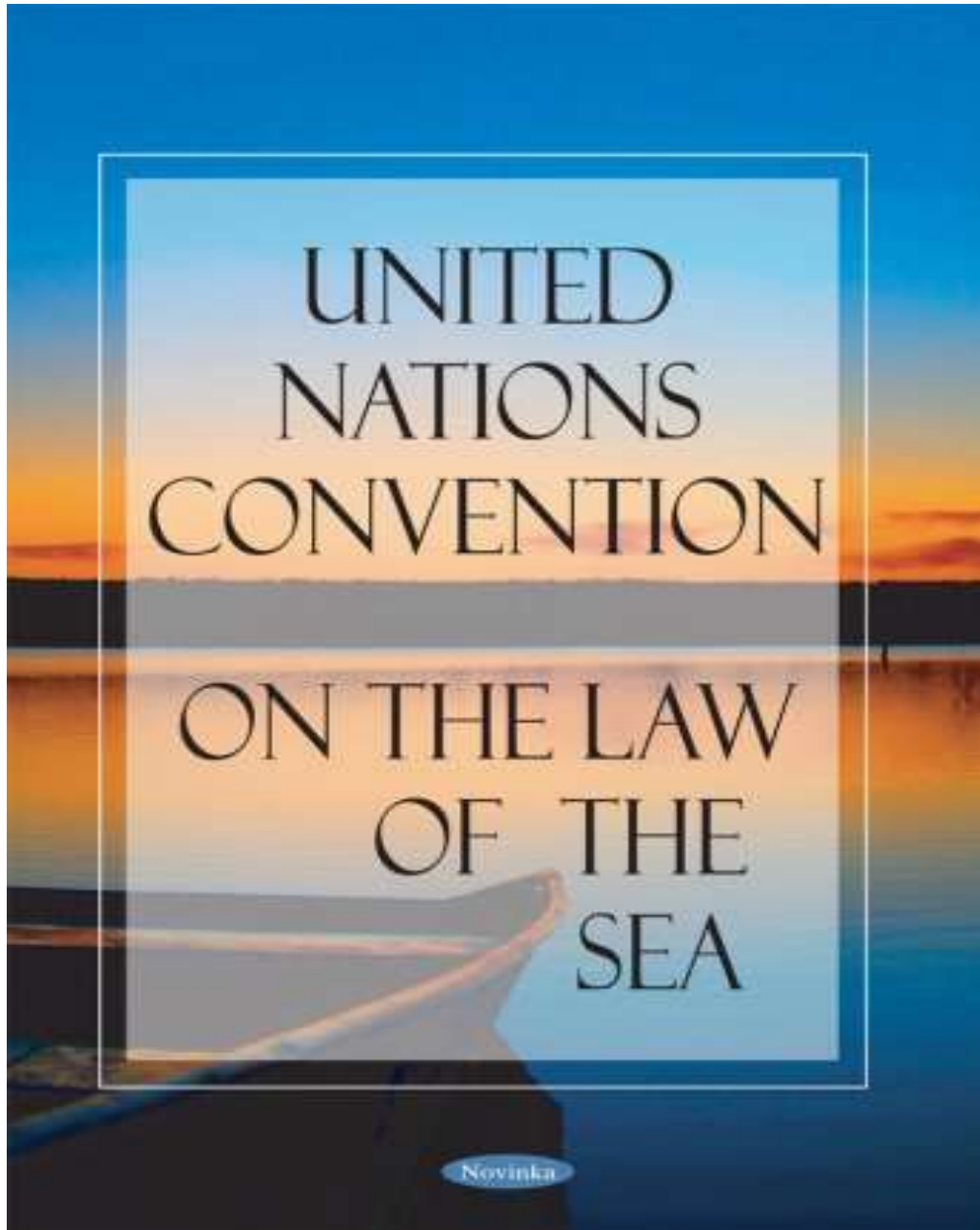
High Seas >60% of Ocean; <1% Protected





BBNJ Agreement

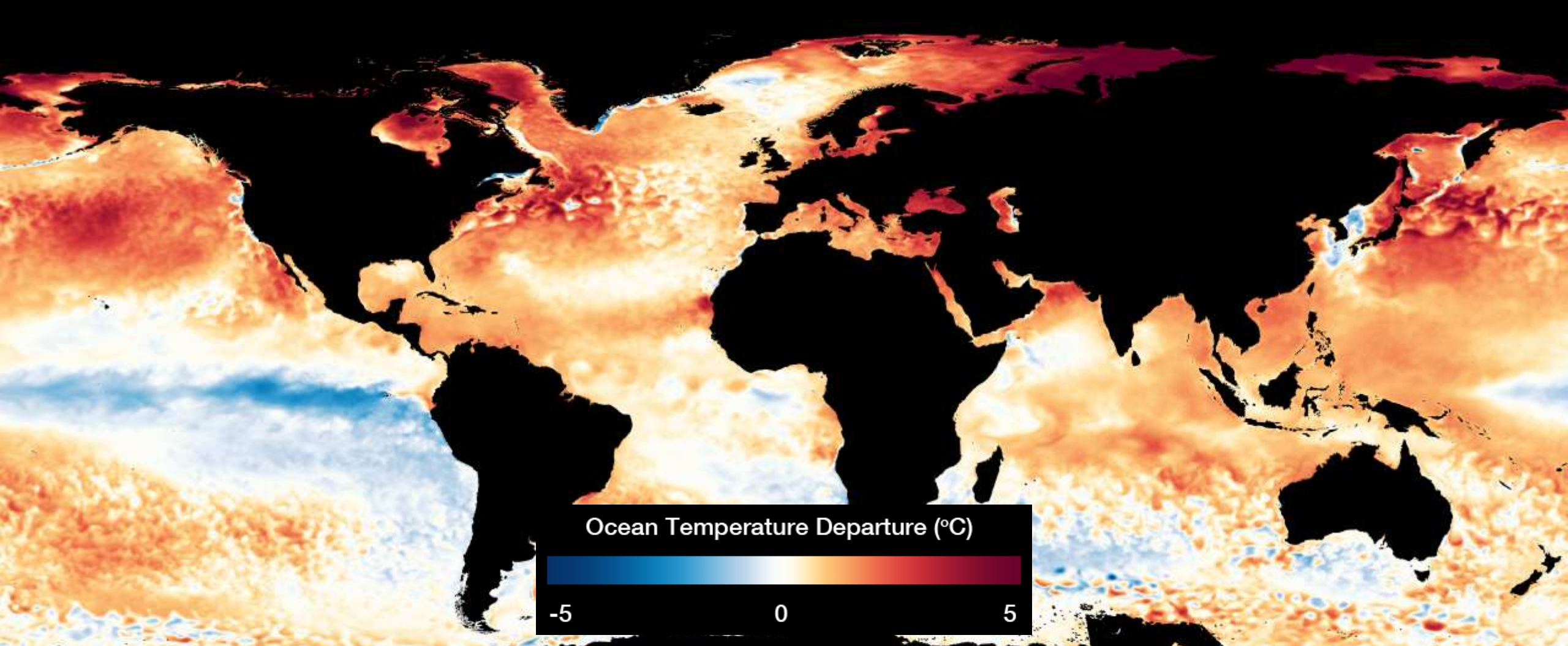
A new international legally binding instrument for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction, under the 1982 UN Convention on the Law of the Sea



Why BBNJ Agreement important?

- Expand toolbox to address cumulative human impacts
- Knit together current fragmented governance system
- Advance ocean health and resilience
- Allow all to share in benefits
- Enable robust institutional, scientific and financial support

The ocean's average temperature increased by 1.5°C in last 100 years; marine heat waves more frequent



Sea surface temperature anomalies measured in September 2020. Blue shows where sea surface temperature is cooler than its

MARINE HEATWAVES

MHW are extended periods of regional ocean warming. They have major impacts on marine life and human society.

EXTREME WEATHER

Warm waters
increase tropical
storms and
hurricanes



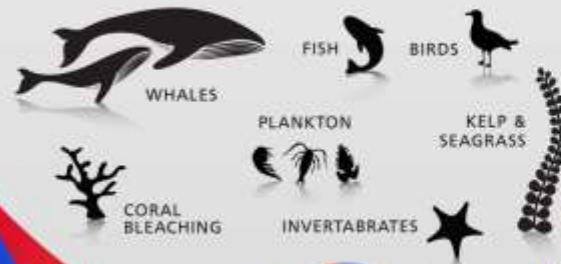
INCREASED OCEAN STRESSORS

- Stratification
- Acidification
- Deoxygenation



BIODIVERSITY & HABITAT LOSS

- Habitat compression
- Food web disruption
- Species migration
- Mass mortalities



ECONOMIC LOSS

Increased mortality
of economically
important species



10x intensity compared
to pre-industrial times

50% increase in MHWs
in the past 10 years

20-50 more
MHWs by 2100



Management toolbox for marine heat waves

- Improved ocean/climate forecasting
- Proactive resource management
- Climate-smart MPAs
- Larger networks of no-take MPAs for climate refugia
- Reduction of other stressors

RESEARCH

REVIEW

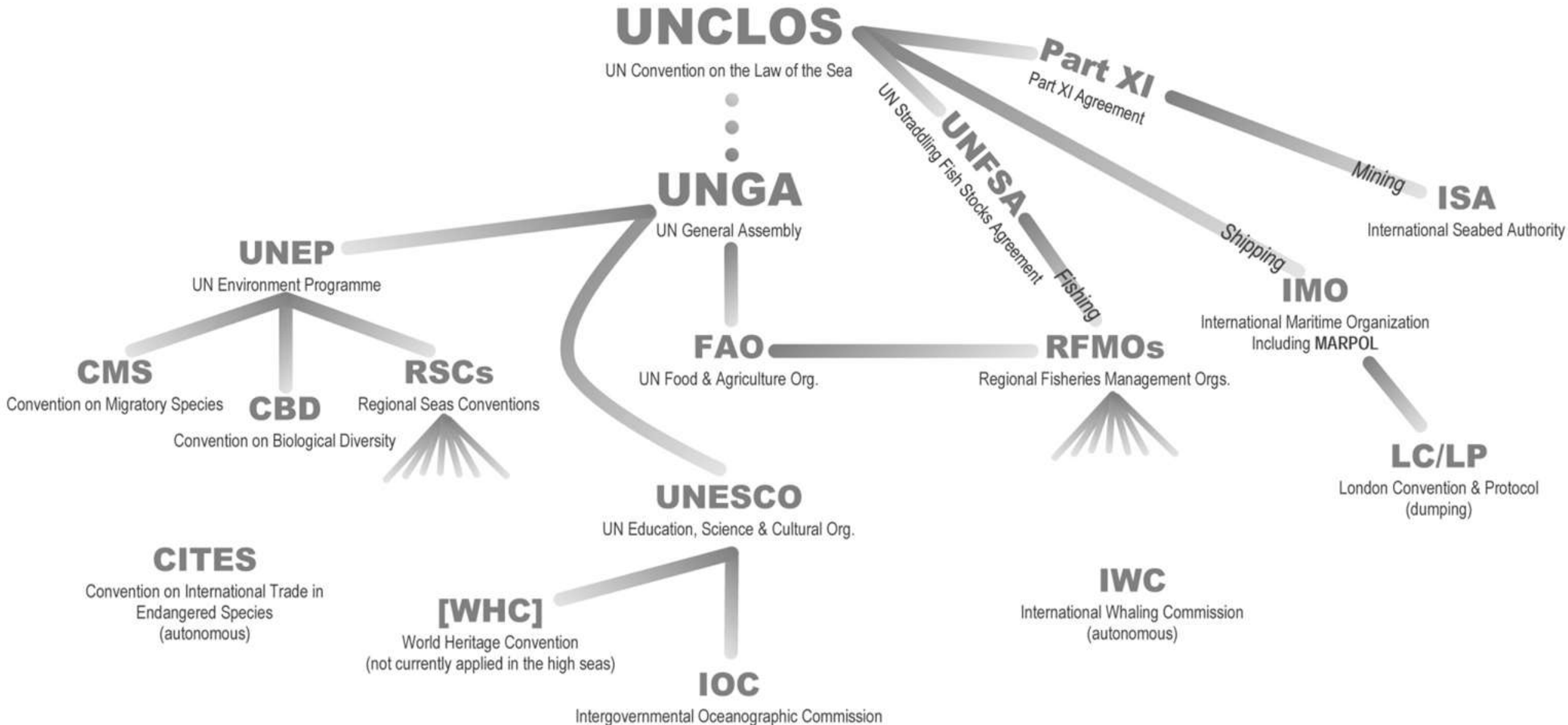
CLIMATE CHANGE

Socioeconomic impacts of marine heatwaves: Global issues and opportunities

Kathryn E. Smith¹, Michael T. Burrows², Alistair J. Hobday³, Alex Sen Gupta⁴, Pippa J. Moore⁵, Mads Thomsen^{6,7}, Thomas Wernberg^{8,9}, Dan A. Smale^{1*}

Extreme climatic events, including marine heatwaves (MHWs), are altering ecosystems globally, often with profound socioeconomic impacts. We examine how MHWs have affected the provision of ecosystem services and evaluate the socioeconomic consequences for human society. Ecological impacts range from harmful algal blooms and mass mortality events to reconfigurations of entire ecosystems, affecting provisioning, habitat, regulating, and cultural ecosystem services globally. Reported economic costs of individual MHW events exceed US\$800 million in direct losses or >US\$3.1 billion in indirect losses of ecosystem services for multiple years. However, biological responses to MHWs can also increase human-ocean interactions, providing opportunities for coastal societies. Our study provides a global perspective on the far-reaching impacts of MHWs on human societies and highlights the urgent need to develop robust approaches to mitigation and adaptation.

How to achieve in a fragmented ocean?



Sectoral Area-Based Management Tools won't get us there

- IMO:

- Particularly Sensitive Sea Areas (shipping impacts)
- Special Areas (ship discharges)

- RFMOs:

- Vulnerable marine ecosystems (closed to bottom fishing)
- Fishery closures

- ISA:

- Areas of Particular Environmental Interest (provisionally closed to deep seabed mining)

Quest for a UN BBNJ Agreement (2002 -2022?)





How can the BBNJ Agreement help?

Four Elements of BBNJ Agreement

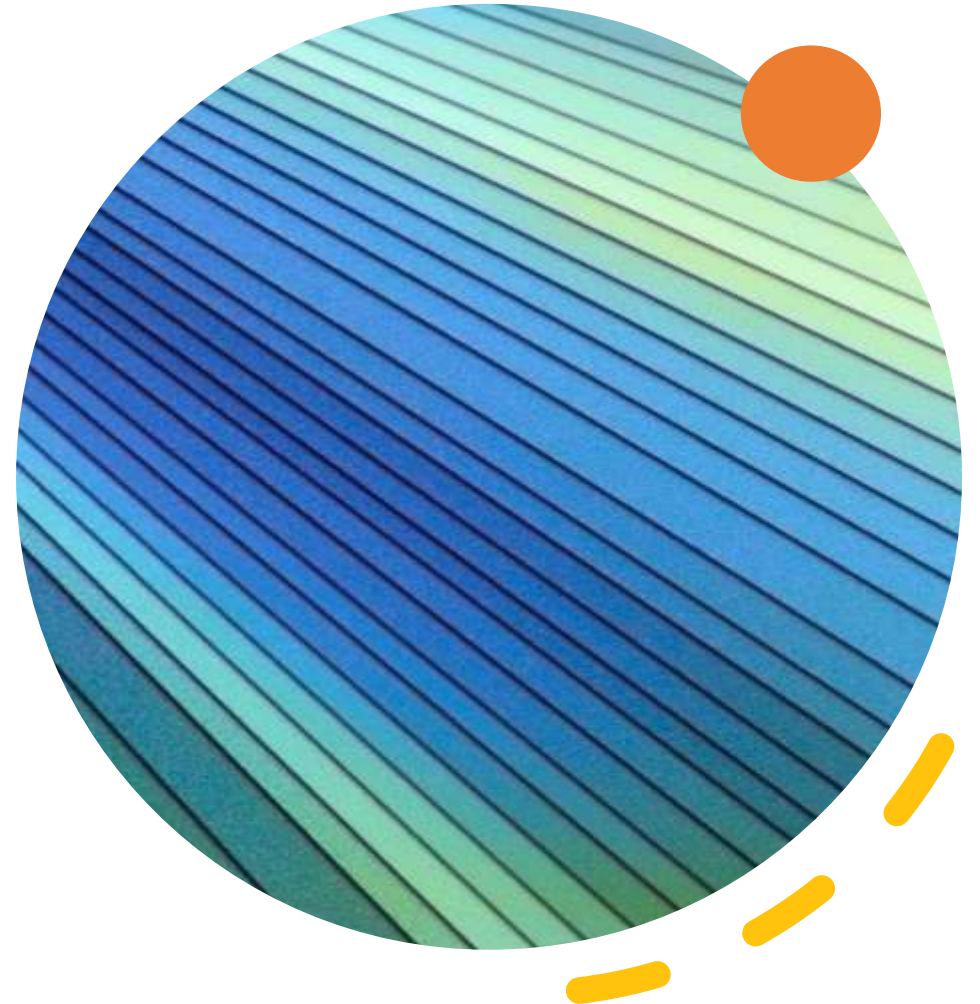
Area-based management tools

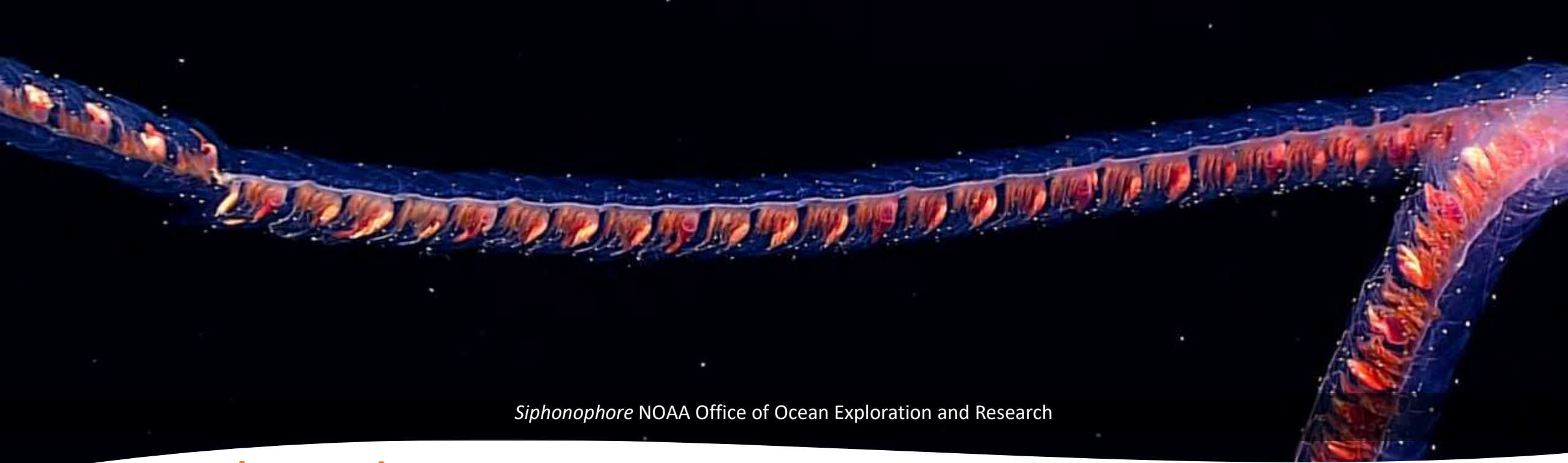
Environmental impact assessments

Marine genetic resources

Capacity building and technology transfer

+ Cross-cutting



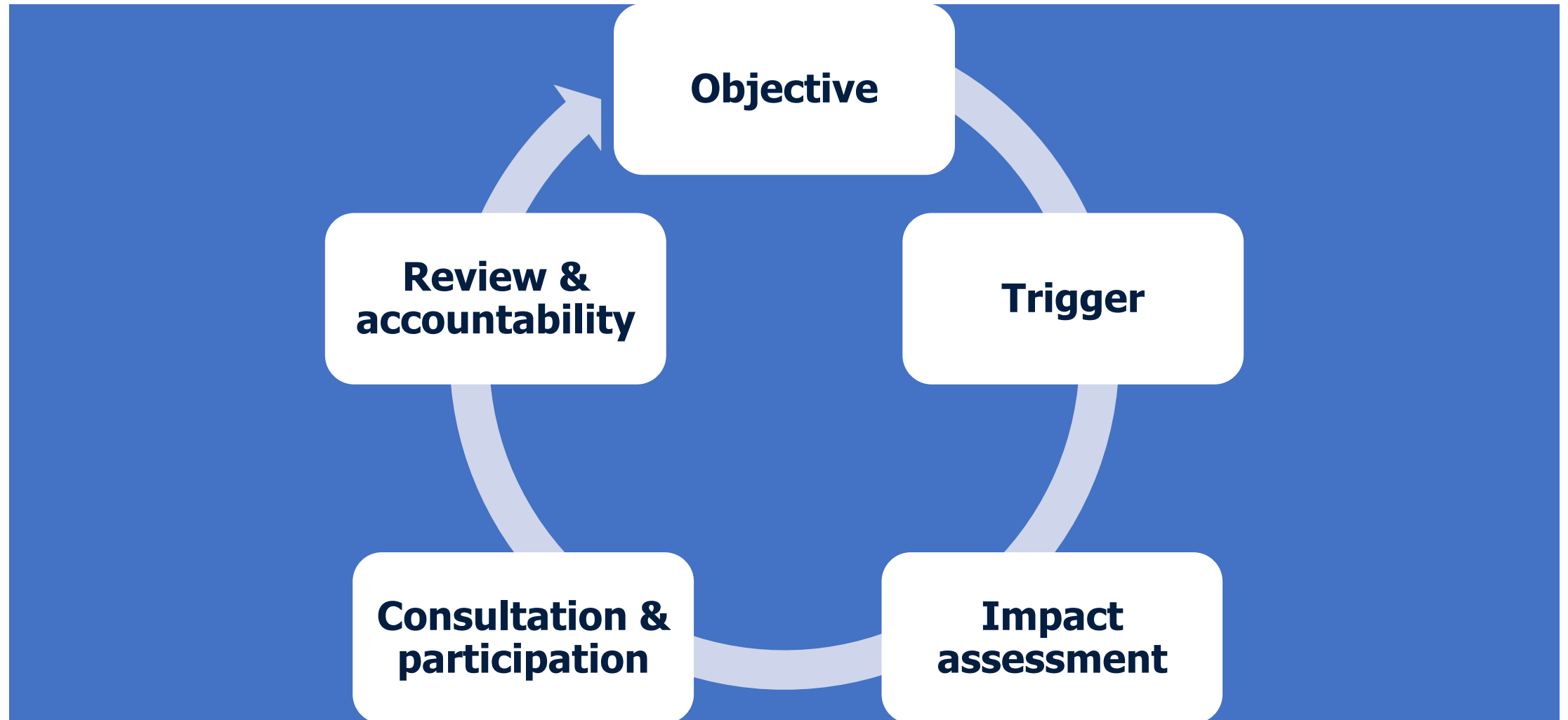


Siphonophore NOAA Office of Ocean Exploration and Research

Area-based management tools including marine protected areas (MPAs)

- Proactively protect ocean biodiversity
- MPA networks & connectivity corridors
- Science-based collaboration

Environmental Impact Assessments



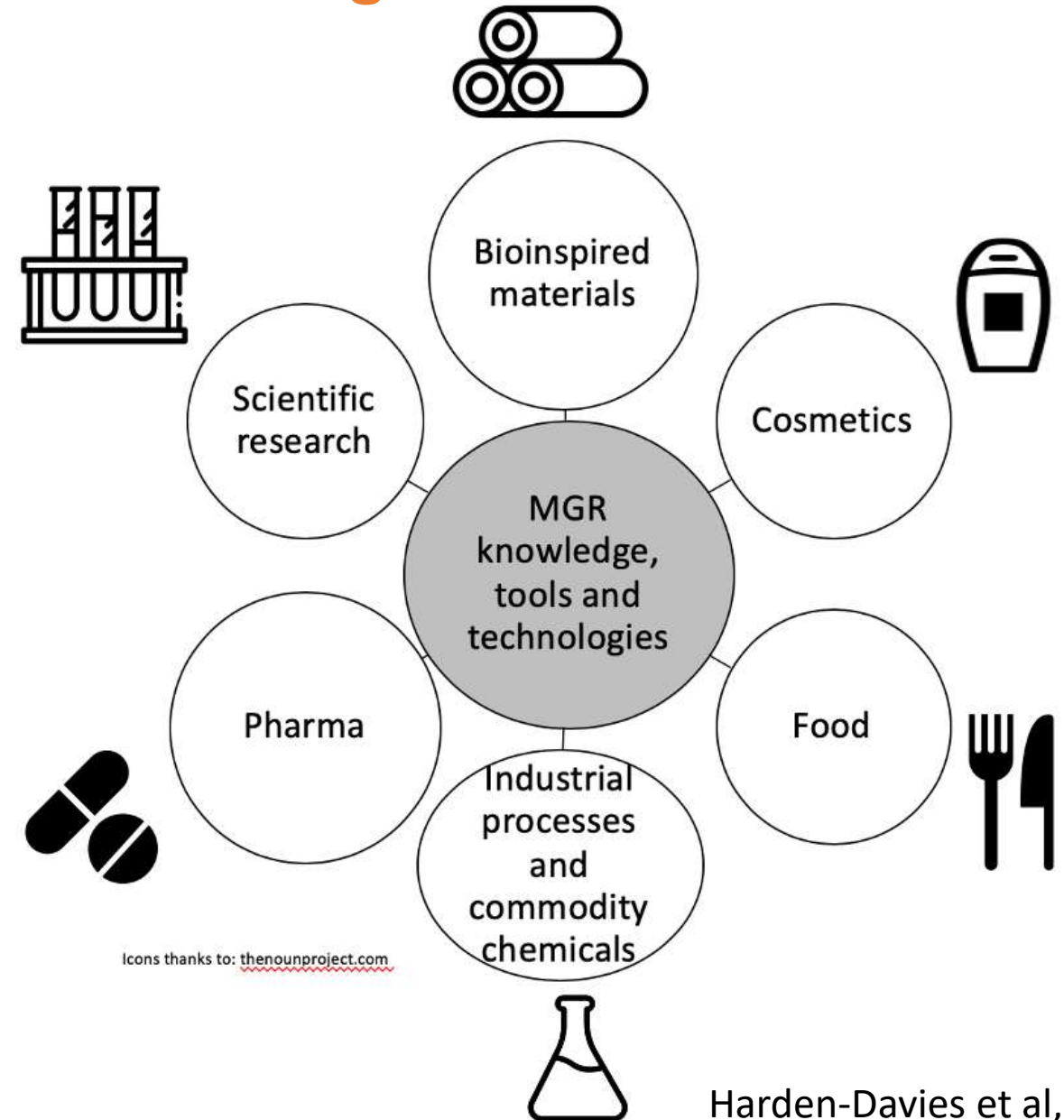


Capacity development

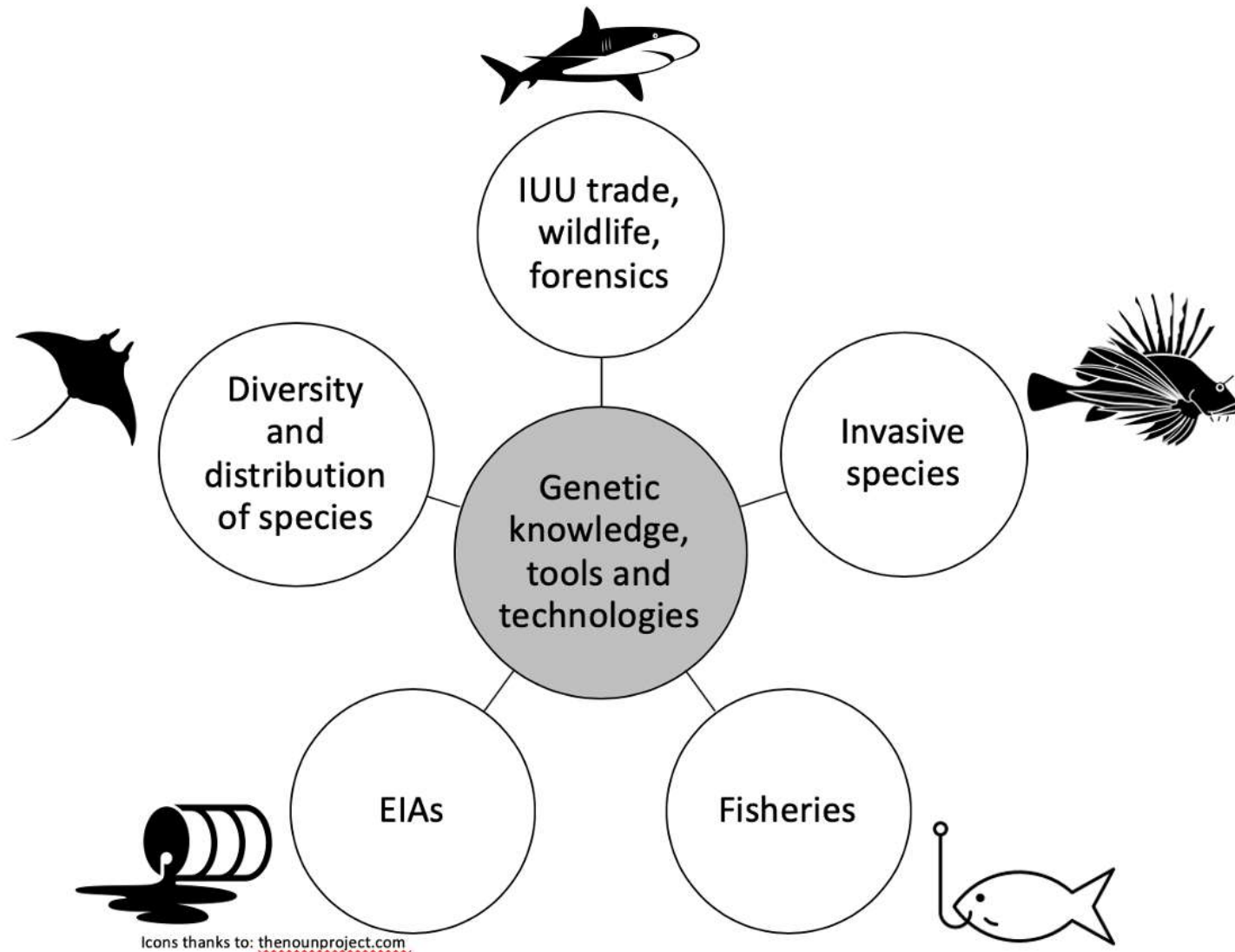
“The technical capacity ...remains unequally distributed among countries and regions” (IOC, 2021)



Benefit sharing: marine biodiscovery



Benefit sharing: Conservation & Management





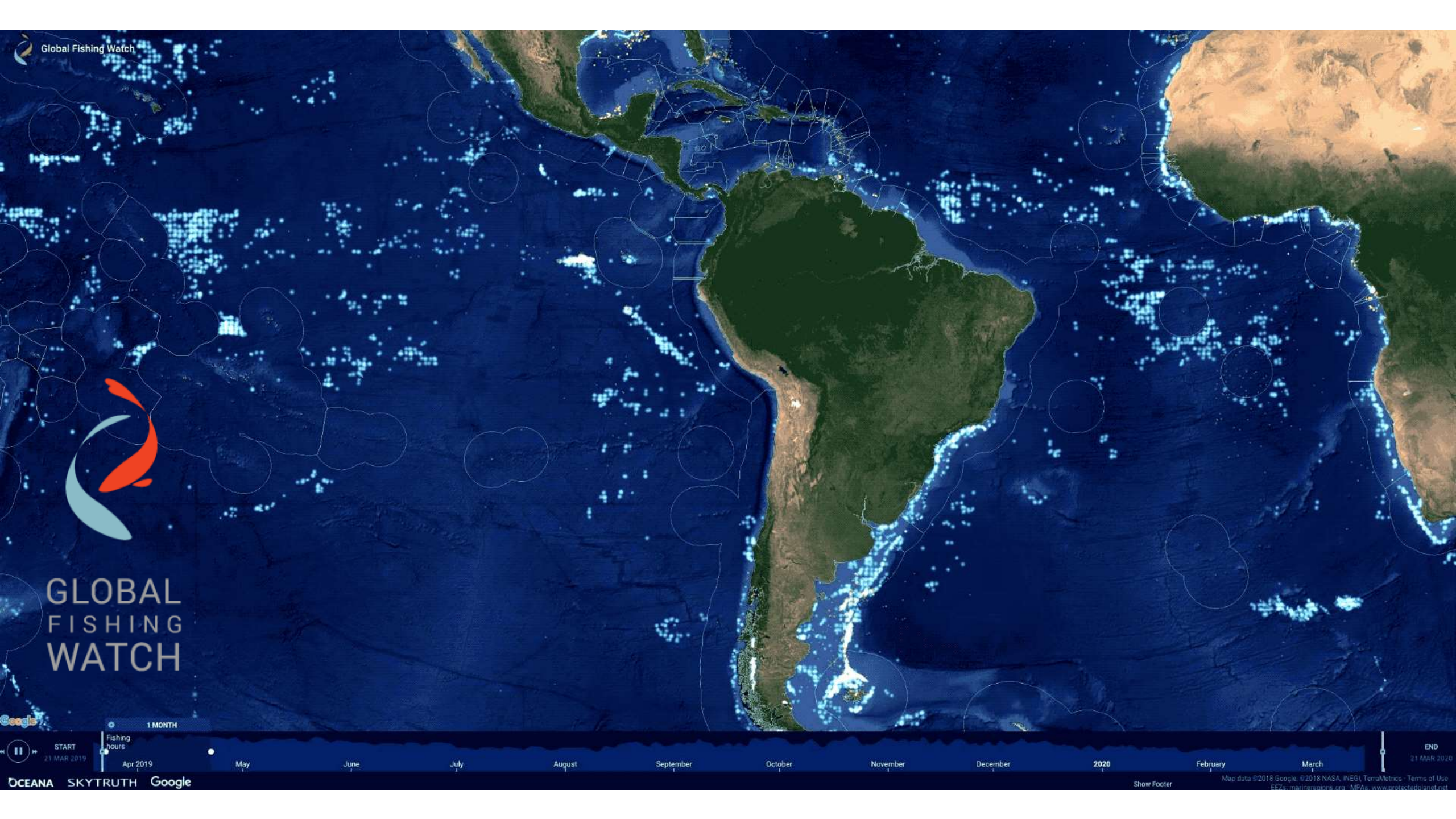
Cross-cut: Institutional structures

Cross-cut: Compliance and enforcement

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Revolutionizing Ocean Monitoring and Analysis

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Global Fishing Watch



GLOBAL
FISHING
WATCH

Google

1 MONTH



START

21 MAR 2019

Fishing
hours

Apr 2019

May

June

July

August

September

October

November

December

2020

February

March

END

21 MAR 2020

OCEANA SKYTRUTH Google

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EFZ's: marineinfo.org MPAs: www.mpa.gov



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

Mission

***Transformative ocean
science solutions for
sustainable development,
connecting people and our
ocean.***

Vision

***The science we need
for the ocean we want***

- Clean
- Healthy and resilient
- Productive
- Predicted
- Safe
- Accessible
- Inspiring and engaging

Cross-cut: funding

Time for an Ocean Sustainability Bank?

National implementation

Collective conservation

Research and monitoring

Ocean innovation



Slide courtesy Torsten Thiele, Global Ocean Trust

Summing it up: Why should we care?

- Past time to address cumulative human impacts
 - Fix fragmented governance system
- Prioritize global ocean health and resilience
 - Allow all to share in benefits
- Ensure robust institutional, scientific and financial support

Thank you!

Questions? kgjerde@eip.com.pl