

RESTORING OUR BLUE PLANET: AN OCEAN TOO DEEP?

An Cliquet, Ghent University

International Wildlife Law Conference
Barcelona, 3-4 June 2019

Our blue planet



*“How inappropriate to call this planet Earth,
when clearly it is Ocean”*

Arthur C. Clarke



Ocean degradation

International Programme on the State of the Ocean.org

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Ocean Health
IPSO is currently compiling the Global State of the Ocean Report, which will collate world-wide marine science to give a comprehensive overview of the health of the Ocean.

The International Programme on the State of the Ocean (IPSO) was established to improve our understanding of the role of the ocean at an Earth System Level and its contribution to enabling life to exist on Earth.

Every sea and ocean on our planet is part of one, global Ocean. This Ocean is like the earth's circulatory system: it performs numerous vital functions which make the planet habitable and we cannot survive without it. Currently, the Ocean is in a critical state of health. If it continues to decline, it will reach a point where it can no longer function effectively and our planet will be unable to sustain the ecosystems that support humankind.

Climate change is the biggest single threat to our Ocean continue functioning at a level capable of sustaining life and alleviate the other pressures we exert upon it.

IPSO's unique consortium of scientists and other Ocean communicators and political analysts — identify the current problems and develop workable solutions to alter the trajectory of the Ocean.

Everything that IPSO does, it does to preserve our Ocean.

Tweets

High Seas Alliance @HighSeasAlliance 21 Oct
Join @SylviaErie @WCPA_Maine and more on our Google Hangout @WPClydney to discuss how to protect the 4highseas link.ly/changemoving. Retweeted by IPSO Expand

IPSO @OceanIPSO 8 Oct
A Gulf in Ocean Knowledge ny.usm1/1CPS8DQ Show Summary

High Seas Alliance @HighSeasAlliance 21 Sep
69th session of #UNGA now open - countdown starts to fulfil Rio promise on high seas. ny.usm1/1CPS8DQ Tweet to @OceanIPSO

IPSO State of the Ocean Report 2013

London - Ocean scientists warn of degradation of change in imposed the

Results from the Ocean (0... tions on seen) by the is absorbing carbon dioxide other ocean Read more

67

An Index Organized by 10 Public Goals

Each goal has an optimum reference point determined by a team of experts. The target is considered achievable and is more sustainable than the current conditions. A score of 100 meets the target. The Ocean Health Index was started in 2012 and reports more scores annually. Roll over the chart to learn more about each goal.

Will the Annual Change prove to stem the index score fall?

Food Provision 51	Artisanal Fishing Opportunities 65	Natural Products 53	Carbon Storage 74	Coastal Protection 76
Coastal Livelihoods & Economies 62	Tourism & Recreation 44	Sense of Place 67	Clean Waters 76	Biodiversity 63

WWF REPORT INT 2015

ZSL

Living Blue Planet Report
Species, habitats and human well-being

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Science & Environment

Marine population halved since 1970 - report

16 September 2015 | Science & Environment

The report analysed more than 1,200 species of marine creatures in the past 45 years

Populations of marine mammals, birds, fish and reptiles have declined by 49% since 1970, a report says.

The study says some species people rely on for food are faring even worse, noting a 74% drop in the populations of tuna and mackerel.

In addition to human activity such as overfishing, the report also says climate change is having an impact.

The document was prepared by the World Wildlife Fund and the Zoological Society of London.

IUCN

Explaining Ocean Warming:
Causes, scale, effects and consequences
Edited by D. Laffoley and J. M. Baxter
September 2016

IUCN GLOBAL MARINE AND POLAR PROGRAMME

WCPA

FINNPOSTION TOTAL

IUCN

Ocean connections
An introduction to rising risks from a warming, changing ocean
D. Laffoley and J. M. Baxter

INTERNATIONAL UNION FOR CONSERVATION OF NATURE

Government Office of Scotland
Ministry of the Environment and Heritage

Several reports and studies show bad state of marine environment

Media Release: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'



Causes of ocean degradation



(Plastic) pollution



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Plastics

Plastic pollution discovered at deepest point of ocean

High levels of contamination in Mariana Trench show how pervasively planet has been contaminated

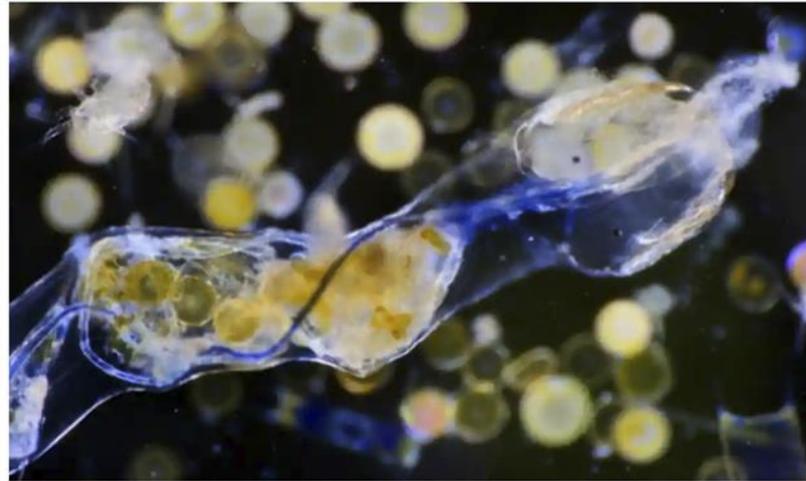
Damian Carrington
Environment editor

Twitter @dpcarrington

Thu 20 Dec 2018 15:01 GMT



1,737



▲ This planktonic arrow worm, *Sagitta setosa*, has eaten a blue plastic fibre about 3mm long. Photograph: Dr Richard Kirby

The deepest point on Earth is heavily polluted with plastic, scientists have discovered, showing how pervasively the world has been contaminated.

The researchers plumbed the depths of the Mariana Trench in the western Pacific Ocean, near Challenger Deep, the lowest place on the face of the planet. They found the highest levels of microplastics yet found in the open ocean, compared with surveys from elsewhere in the Pacific, Atlantic and Arctic oceans.

“Manmade plastics have contaminated the most remote and deepest places on the planet,” said the Chinese researchers. “The **hadal** zone is likely one of the largest sinks for microplastic debris on Earth, with unknown but potentially damaging impacts on this fragile ecosystem.”

Overfishing



water
Guardian sustainable business

Dermot O'Gorman

Dermot O'Gorman is the CEO of World Wildlife Fund Australia

Mon 15 Feb 2016 20:53 GMT



958 85

Overfishing is as big a threat to humanity as it is to our oceans

As market leader John West commits to sustainably sourced tuna, WWF Australia CEO says the move will drive fishery reform, helping to provide food security for Pacific islanders as well as save vulnerable marine species



▲ A fisherman in the Philippines with a tuna catch. John West Australia has joined forces with WWF and the Marine Stewardship Council to source only sustainable tuna. Photograph: Jürgen Freund/WWF Australia

There has never been a more urgent time for seafood businesses and fishing nations to make a commitment to sustainability. The world's oceans are in trouble, with marine life plummeting and the people who are dependent on the sea for income and food left increasingly vulnerable. [Data shows](#) populations of fish and other marine vertebrates, including marine mammals, reptiles and birds have halved since 1970.

Fourteen years ago when I was based with WWF in the Pacific - where most of Australia's tuna is sourced - I saw first hand the stress that was being

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Climate change



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Half of Great Barrier Reef 'disappeared' in past 27 years

2 October 2012 Last updated at 07:07 BST



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Great Barrier Reef Great Barrier Reef suffers 89% collapse in new coral after bleaching events

Study shows dramatic fall in baby coral numbers but also change in type of coral

Lisa Cox
Wed 3 Apr 2019 18:00 BST

6,985

▲ Tile covered with coral settlement stimulant. Great Barrier Reef new coral collapse comes after death of adult coral. Photograph: Tony Chase/ARC CoE for Coral Reef Studies

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Climate Consensus - the 97% Climate change

Our oceans broke heat records in 2018 and the consequences are catastrophic

Rising temperatures can be charted back to the late 1950s, and the last five years were the five hottest on record

John Abraham

Wed 16 Jan 2019 11.00 GMT



4.617



▲ Bleached coral in Guam. The heating of oceans is causing tremendous problems for sea life. Photograph: David Burdick/AP

Last year was the hottest ever measured, continuing an upward trend that is a direct result of manmade greenhouse gas emissions.

The key to the measurements is the oceans. Oceans absorb more than 90% of the heat that results from greenhouse gases, so if you want to measure global warming you really have to measure ocean warming.

There are other ways to measure climate change, but none are as convincing as the oceans. Air temperatures are most commonly reported in the media as evidence of global warming, but the problem with these is they are very erratic. While there is certainly a long-term trend of higher air temperatures, any given year may be warmer or colder than the last.

most viewed



Live Trump to temporarily reopen government after longest shutdown in US history - live



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Roger Stone says he won't testify against Trump after Mueller indictment



Europe 'coming apart before our eyes', say 30 top intellectuals



Nazi blueprint for North American Holocaust acquired by Canada archive

An underwater scene showing a large amount of plastic waste, including bottles, cans, and containers, floating in the water. The background is a deep blue ocean with some coral visible on the left side. A white banner is attached to the top right of the image.

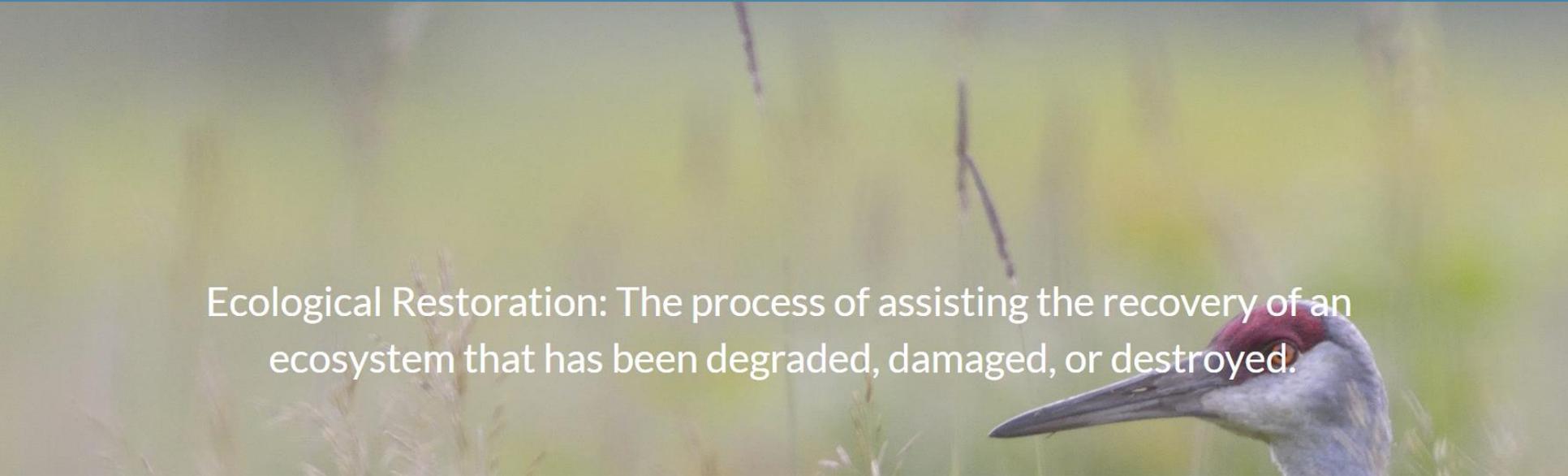
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Marine restoration



Ecological Restoration: The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

Ecological restoration approaches

- Natural (or spontaneous) regeneration approach:
 - Where damage is relatively low, plants and animals may be able to recover by cessation of the degrading practices alone (e.g. stop over-fishing)

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Seascape: the state of our oceans
Plastics

Seascape: the state of our oceans is supported by



About this content

Hannah Summers

Thu 20 Dec 2018 11.08 GMT



950

Great Pacific garbage patch \$20m cleanup fails to collect plastic

Engineers at the Ocean Cleanup project are working on a fix to stop collected debris leaking back out from the 600m barrier

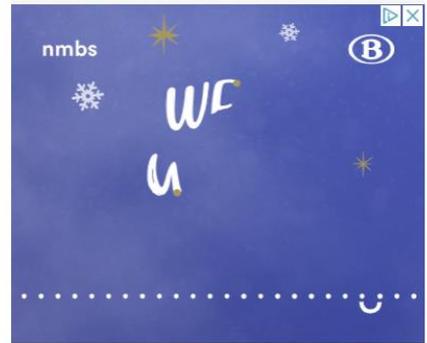


The Ocean Cleanup System 001 during testing in the Great Pacific Garbage Patch, October 2018. Photograph: The Ocean Cleanup

A giant floating barrier launched off the coast of San Francisco as part of a \$20m project to cleanup a swirling island of rubbish between California and Hawaii, is failing to collect plastic.

The mastermind behind the Ocean Cleanup, an ambitious plan to clear a swathe of the Pacific twice the size of Texas of floating debris, reported four weeks into testing that while the U-shaped device was scooping up plastic, it was then losing it.

Advertisement



Ecological restoration approaches

- Assisted regeneration approach:
 - Recovery at sites of intermediate (or even high) degradation need both removal of causes of degradation and further active interventions to correct abiotic damage and trigger biotic recovery (e.g. building habitat features such as shellfish reefs)



Ecological restoration approaches

- Reconstruction approach:
 - Where damage is high, not only do all causes of degradation need to be removed or reversed and all biotic and abiotic damage corrected, but also all or a major proportion of its desirable biota need to be reintroduced wherever possible





How farming giant seaweed can feed fish and fix the climate

July 31, 2017 5:38am BST

Giant kelp can grow up to 60cm a day, given the right conditions. Joe Belanger/shutterstock.com

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This is an edited extract from [Sunlight and Seaweed: An Argument for How to Feed, Power and Clean Up the World](#) by Tim Flannery, published by Text Publishing.

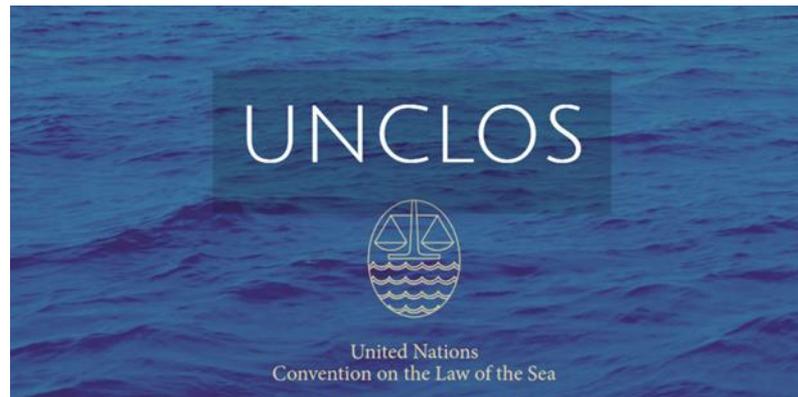
Bren Smith, an ex-industrial trawler man, operates a farm in Long Island Sound, near New Haven, Connecticut. Fish are not the focus of his new enterprise, but rather kelp and high-value shellfish. The seaweed and mussels grow on floating ropes, from which hang baskets filled with scallops and oysters. The technology allows for the production of about 40 tonnes of kelp and a million bivalves per hectare per year.



Restoration obligations

Restoration obligations

- Law of the Sea Convention (UNCLOS):
 - No explicit reference to ecosystem restoration
 - Obligations to restore populations of harvested species
 - No concrete targets or guidelines



Restoration obligations

- Implicit or explicit obligations on restoration in nature conservation law and policy
- Most international and regional nature conservation laws only apply to coastal waters (territorial sea + EEZ)
 - Examples: Ramsar Convention, World Heritage Convention



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2



A bleached colony of *Acropora* coral off American Samoa in 2015.

NOAA

Almost all of the 29 coral reefs on U.N. World Heritage list damaged by bleaching

By **Dennis Normile** | Jun. 26, 2017, 12:15 PM

There was good news and bad news for the world's coral reefs last week. The good news, announced 19 June, is that the global coral bleaching event that started in 2015 appears to be over, according to the U.S. National Oceanic and Atmospheric Administration (NOAA) in Silver Spring, Maryland. The bad news, released 23 June, is that the 3 successive years of bleaching conditions damaged all but three of the 29 reefs that are or are contained within United



World Heritage coral reefs likely to disappear by 2100 unless CO2 emissions reduce drastically

In [Changing Planet](#)

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July 18, 2017

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[Fanny Douvere](#)

During my six years with UNESCO's World Heritage Marine Programme, I have had the privilege of visiting some of the world's most beloved ocean places, including Cabo Pulmo, Lagoons of New Caledonia, Belize Barrier Reef, Coiba National Park, Tubbataha Reefs, and the Great Barrier Reef. Field visits are integral to our work, as we are constantly trying to understand the health of these rare places, and forge solutions with local and national governments.

I have had the opportunity to explore thriving coral reefs, treasure troves full of life and breathtaking beauty and color – unlike anything else I've experienced. But like many of us, I have also watched with growing unease how the devastating heat wave that gripped the world's oceans over the past three years wrought havoc in 21 out of the 29 globally-significant reefs on the UNESCO World Heritage List.

Many World Heritage-listed reefs, including Australia's Great Barrier Reef or Phoenix Islands protected Area in Kiribati, have been working hard to reduce pollution and other stressors and boost resilience. But the record-breaking bleaching event that stretched from 2014 to last month made it clear that local management is no longer sufficient to protect these iconic rainforests of the sea. We are facing a global problem that demands global solutions.



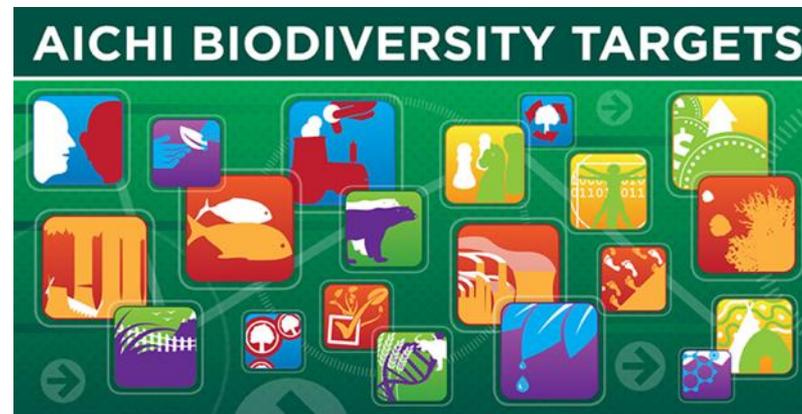
Restoration obligations

- Biodiversity Convention:
 - Explicit restoration obligations in Convention (art. 8 and 14)
 - CBD applies to marine waters under national jurisdiction + activities beyond
 - Explicit reference to restoration in Work programme on marine and coastal biodiversity
 - COP decisions on restoration (Decision XI/16 Ecosystem restoration, 2012; Decision XII/19 Ecosystem conservation and restoration, 2014)



Restoration obligations

- Biodiversity Convention:
 - Aichi Targets (COP Decision X/2, 2010):
 - By 2020:
 - Target 11: at least 10 per cent of coastal and marine areas are conserved as protected areas and other effective area-based conservation measures
 - Target 14: ecosystems that provide ecosystem services are restored
 - Target 15: 15% of degraded ecosystems are restored



Restoration obligations

- Sustainable Development Goals, 2015:
 - Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
 - Target: By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information



Global Biodiversity Outlook 4

A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011–2020



Convention on
Biological Diversity



Restoration obligations

- Progress on Targets (Global Biodiversity Outlook 4, 2014):
 - Target 11:
 - 10% is on course to be met in coastal waters
 - Open ocean, high seas, deep sea are not well covered
 - Inadequate management of protected areas
 - Target 14:
 - Habitats important for ecosystem services, for example coral reefs, continue to be lost and degraded
 - Target 15:
 - Restoration is under way for some depleted or degraded ecosystems, especially wetlands. Hard to assess if 15% target will be met



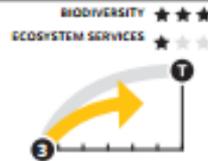
TARGET 11

At least 10 per cent of coastal and marine areas are conserved



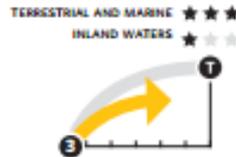
Marine protected areas are accelerating but extrapolations suggest we are not on track to meet the target. With existing commitments, the target would be met for territorial waters but not for exclusive economic zones or high seas

Areas of particular importance for biodiversity and ecosystem services conserved



Progress for protected Key Biodiversity Areas, but still important gaps. No separate measure for ecosystem services

Conserved areas are ecologically representative



Progress, and possible to meet this target for terrestrial ecosystems if additional protected areas are representative. Progress with marine and freshwater areas, but much further to go



TARGET 11

Conserved areas are effectively and equitably managed



Reasonable evidence of improved effectiveness, but small sample size. Increasing trend towards community involvement in protection. Very dependent on region and location

Conserved areas are well connected and integrated into the wider landscape and seascape



Initiatives exist to develop corridors and transboundary parks, but there is still not sufficient connection. Freshwater protected areas remain very disconnected

Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded ...

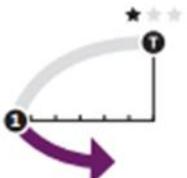


High variation across ecosystems and services. Ecosystems particularly important for services, e.g. wetlands and coral reefs, still in decline



TARGET 14

... taking into account the needs of women, indigenous and local communities, and the poor and vulnerable



Poor communities and women especially impacted by continuing loss of ecosystem services



TARGET 15

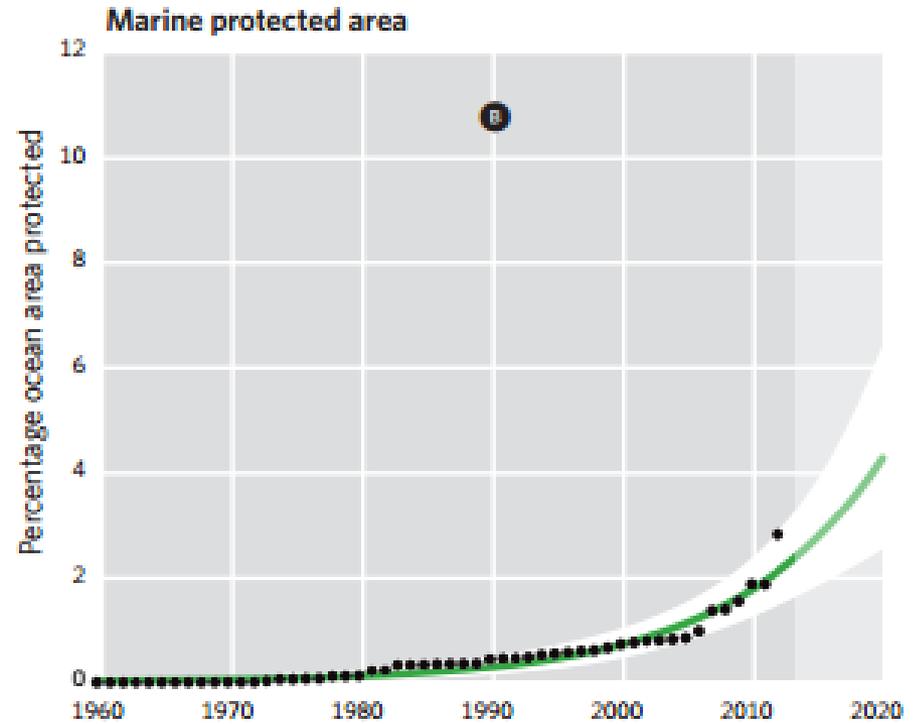
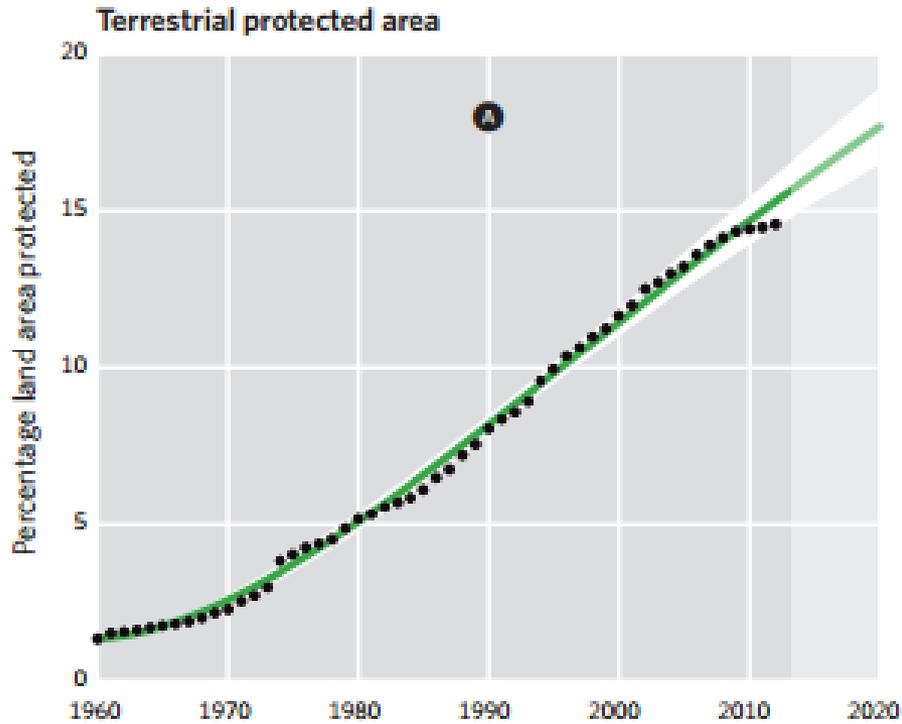
At least 15 per cent of degraded ecosystems are restored, contributing to climate change mitigation and adaptation, and to combating desertification



Many restoration activities under way, but hard to assess whether they will restore 15% of degraded areas

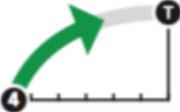
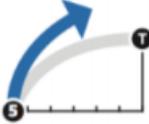
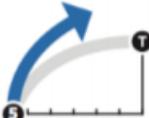
An underwater photograph taken from a low angle, looking up towards the surface. The water is clear and blue, with sunlight filtering through from the top right, creating a bright, starburst effect. Several divers are visible, some holding onto a long, curved banner. The banner is a vibrant green color and features the text "MARINE RESERVES NOW?" in large, bold, black capital letters. The divers are silhouetted against the bright light, and their movements create ripples in the water. The overall scene conveys a sense of environmental awareness and marine conservation.

MARINE RESERVES NOW?



Source: CBD Global Biodiversity Outlook 4, 2014

II. QUANTITATIVE ELEMENTS OF AICHI BIODIVERSITY TARGET 11

Element of Target 11 (and status from GBO-4 in 2014)	Status in 2016 (as per the <i>Protected Planet Report 2016</i>)	Current Status (analysis by UNEP-WCMC of May 2018 WDPA)	Opportunities for 2020 (if all national commitments are implement as proposed)
At least 17% of terrestrial and inland water areas conserved 	Global cover: 14.7% 87 Parties reaching at least 17%	14.8% 91 Parties reaching at least 17%	17.7% 
At least 10% of coastal and marine areas conserved 	Global ocean: 4.1% National waters: 10.2% ABNJ: 0.25% 23 Parties reaching at least 10%	7.26% 16.77% 1.8% 34 Parties reaching at least 10%	10.5% 24.0% 2% 

Temporal change in global MPA Coverage 2016-2018

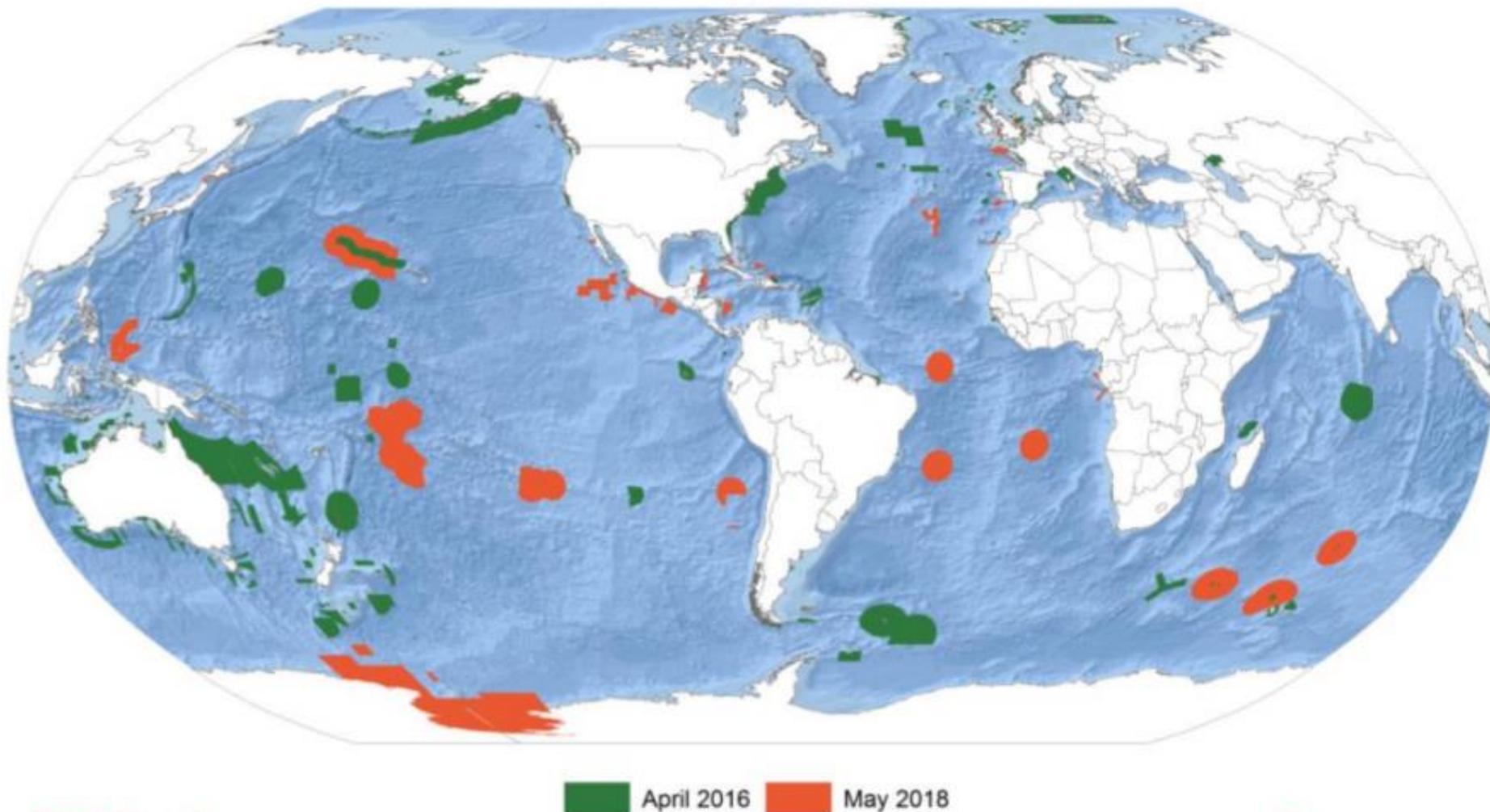


Figure 1. Marine protected areas added between April 2016 and May 2018.⁷

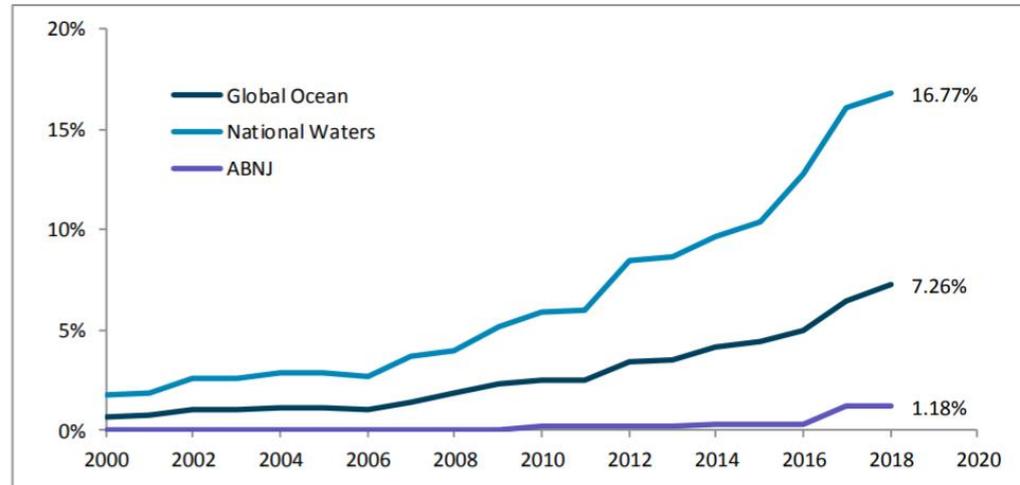


Figure 2. Increases in marine protected area coverage since 2000.¹²

Box 1: More than 10 million km² in large MPAs were added between April 2016 and May 2018.

The **Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)** established the Ross Sea Region marine protected area (MPA) in December 2017 (>2 million km²).

In 2017, **Cook Island** designated its entire 1.9 million km² EEZ as a protected area, with the Marae Moana Marine Park.

In 2017, **France** expanded the Réserve Naturelle Nationale des Terres australes françaises in its **Southern and Antarctic Territories**, increasing coverage by more than 1.6 million km².

In 2016, the **United Kingdom** designated as protected areas the entire EEZs of **Pitcairn (840,000 km²)** in the South Pacific, and of **St Helena (>440,000 km²)** in the South Atlantic.

In 2016, the **United States of America** expanded the Papahānaumokuākea Marine National Monument in Hawaii, adding more than 1.1 million km².

In March 2018, **Brazil** announced the designation of two large mosaics of MPAs, covering more than 900,000 km² around the Archipelagos of São Pedro and São Paulo, and Trindade and Martim Vaz.

At COP13 (December 2016), **Mexico** announced the designation of three large MPAs (Pacífico Mexicano Profund, Reserva de la Biosfera Caribe Mexicano and Reserva de la Biosfera Islas del Pacífico) adding over 600,000 km².

Palau closed over 80% of its EEZ in 2016, keeping more than 500,000 km² as a no-take marine reserve.

Chile designated the Nazca-Desventuradas marine park in 2016 and the Juan Fernández Archipelago MPA in 2017, together adding over 300,000 km².

Source: Communications by the Secretariat with National Focal Points. Details regarding all commitments, and sources of information available at: <https://www.cbd.int/pa/UN-Ocean-Conference/MPA-commitments.xlsx>.

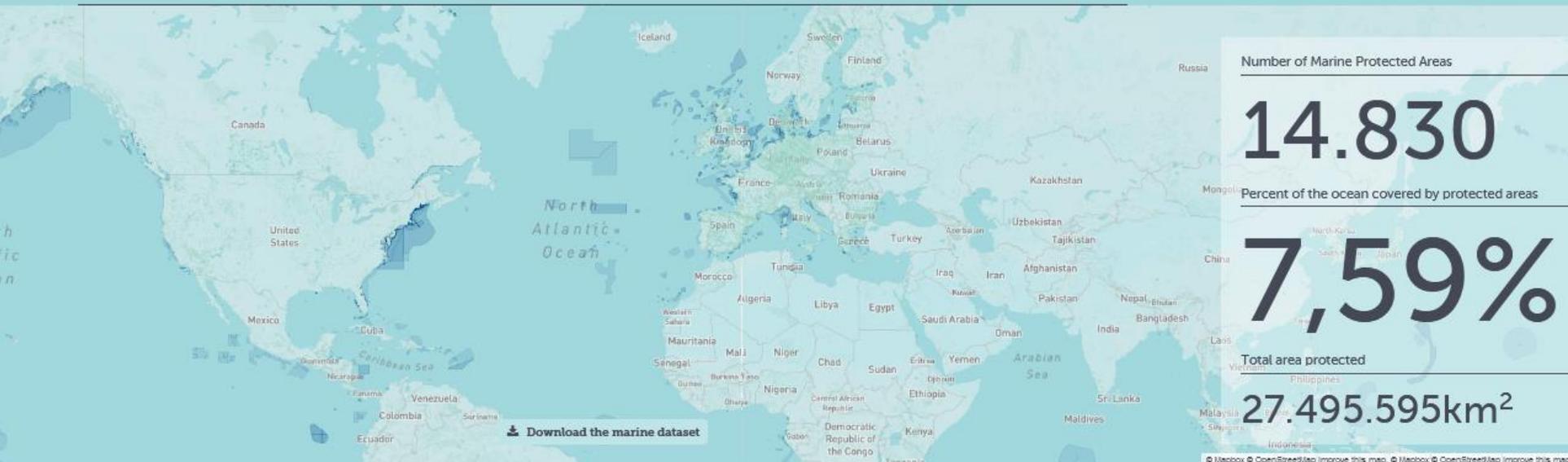
Explore the World's MARINE PROTECTED AREAS

Over 70% of the surface of Earth is ocean, comprised of highly diverse ecosystems, and providing a wide range of marine ecosystem services that support human society, health and the economy. This website presents the most recent official coverage statistics for marine protected areas, updated monthly from the [World Database on Protected Areas](#).

[Learn how we calculate protected area coverage statistics](#)

- MPA distribution
- Growth in coverage
- Coverage of national waters
- Size distribution
- MPA representation
- Pledges and designations
- Green listing

Protected areas coverage in 2019



Distribution of marine protected areas

The global coverage of marine protected areas (MPAs) is 7.59%. The Global Ocean can be divided into areas within national jurisdiction (National Waters) and those in international waters (Areas Beyond National Jurisdiction (ABNJ))

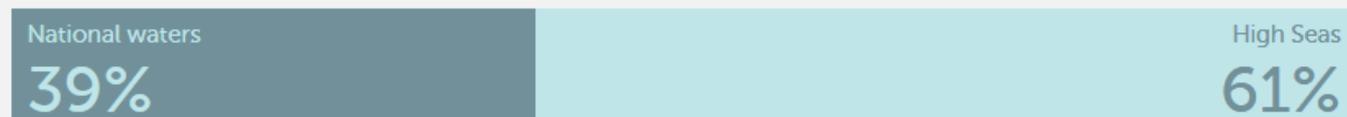
MPAs can be more easily created by governments in national waters where there are dedicated legal systems in place. In ABNJ it is more difficult to create MPAs due to the complex legal framework in place. As such, the percentage of MPAs created within national waters is much higher than that for ABNJ. National waters represent 39% of the global ocean and at present, 17.62% of these waters are designated as protected areas. In contrast, only 1.18% of ABNJ, which makes up the remaining 61% of the global ocean, has been established as protected areas. At present, international discussions are underway to establish ways of simplifying the process to create MPAs in ABNJ. For more information on this, please see the [DOALOS website](#).

National waters and the High Seas

National waters represent an area of coastal water extending out to the limit of the Exclusive Economic Zone at 200 nautical miles from the baseline of a Coastal State. Coastal States have management jurisdiction over these waters, the resources within them and the resources in/under the seabed.

Marine Areas Beyond National Jurisdiction (ABNJ) are areas of the ocean that are not under the jurisdiction of any one country. Therefore, no individual nation has the sole responsibility for management of these areas. Defined in recent international discussions¹, ABNJ includes both the High Seas – all parts of the sea that are not included in national waters², and the "Area" – the seabed beyond the limits of national waters³.

The Global Ocean



Protected Area coverage of national waters



17,62%
(24.877.442km²)

Protected Area coverage of the high seas



1,18%
(2.618.153km²)

Restoration obligations

- Only a small part of oceans is protected area as Marine Protected Area (MPA)
 - 7.59% of oceans protected
 - Most MPAs are in areas under national jurisdiction (17.62%)
 - In Areas Beyond National Jurisdiction (ABNJ) only 1.18% is protected

Restoration obligations

- Not enough legal basis for marine areas beyond national jurisdiction
- Often 'paper' marine protected areas: not enough restrictions on damaging human activities (fisheries)
- Most attention for restoration at international level is on restoration of forests (REDD+, Bonn Challenge...)
- Often lack of concrete definition, targets and guidelines (where and how to restore)



Ecological restoration:
hope for the future?



INTERGOVERNMENTAL CONFERENCE ON MARINE BIODIVERSITY OF AREAS BEYOND NATIONAL JURISDICTION

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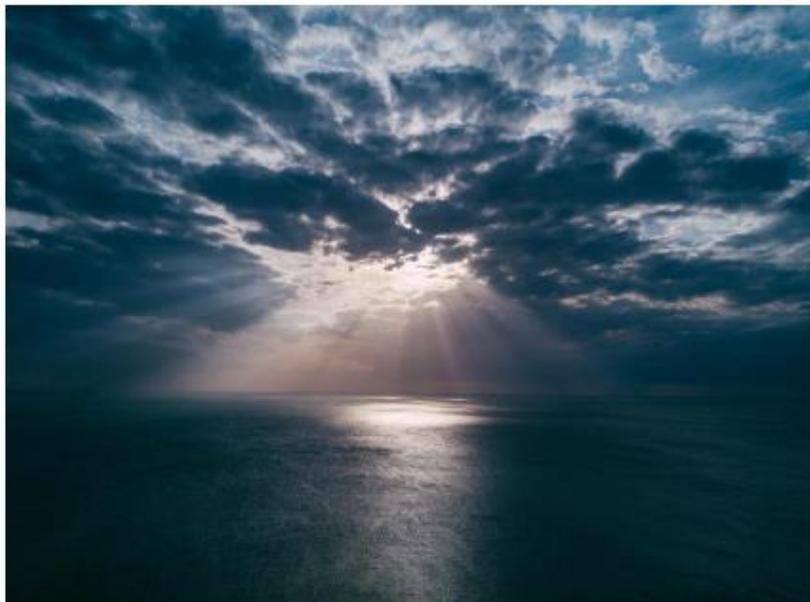
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Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (General Assembly resolution 72/249)



In its [resolution 72/249](#) of 24 December 2017, the General Assembly decided to convene an Intergovernmental Conference, under the auspices of the United Nations, to consider the recommendations of the [Preparatory Committee](#) established by [resolution 69/292](#) of 19 June 2015 on the elements and to elaborate the text of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, with a view to developing the instrument as soon as possible.

The Conference will meet for four sessions, with the first session to be convened from 4 to 17 September 2018. The second and third sessions will take place in 2019, and the fourth session in the first half of 2020.

The Conference will hold a three-day organizational meeting in New York, from 16 to 18 April 2018.

Opportunities for restoration

- Resolution UN General Assembly, June 2015, Development of an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction:
 - UN agreed to develop a legally binding instrument to conserve and sustainably use marine biological diversity of areas beyond their national borders
 - The new instrument will fall under UNCLOS
 - A preparatory committee was established
- Resolution UNGA, 2017: decides to organize a conference + elaborate treaty text

D. MEASURES SUCH AS AREA-BASED MANAGEMENT TOOLS, INCLUDING MARINE PROTECTED AREAS

1. Objectives of area-based management tools, including marine protected areas⁸

89. Conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

90. Protection and preservation of the marine environment.

91. Protection, maintenance and restoration of ocean health and resilience, including key ecosystem processes, habitats and species, and areas which are vulnerable to impact(s), including from climate change, such as unique, fragile/sensitive, rare or highly biodiverse habitats and features as well as areas essential for the survival, function, or recovery of particular stocks or rare or endangered marine species (such as breeding or spawning grounds), or for the support of large ecosystems.

92. Protection of representative marine ecosystems, biodiversity and habitats, including through a global, coherent and representative network of effectively managed ABMTs, including MPAs, in areas beyond national jurisdiction.



General Assembly

Distr.: General
31 July 2017

Original: English

Preparatory Committee established by General Assembly resolution [69/292](#): Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

Fourth session

New York, 10-21 July 2017

Report of the Preparatory Committee established by General Assembly resolution [69/292](#): Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

World Heritage reports 44



World Heritage in the High Seas: An Idea Whose Time Has Come

Legal experts gather in Monaco to explore World Heritage beyond national jurisdiction

Friday, 14 December 2018 at 16:00:00



Hydrothermal vents in the Lau Basin. © Photo courtesy of the Woods Hole Oceanographic Institute and Charles Fisher, Pennsylvania State University. // Looking straight down the axis of an Iridogorgia coral. Note the large shrimp on the left and a brittle star to the right. © Credit: NOAA Office of Ocean Exploration and Research, 2015 Hohonu Moana // A dumbo octopus displays a body posture never before observed in cirrate octopods. © Image courtesy of the NOAA's Office of Ocean Exploration and Research. // A sponge covered with hundreds to thousands of tiny anemones also provides a home to several brittlestars (pink), crinoids or "sea lilies" (yellow), and a basket star (brown). © Image courtesy of the NOAA Office of Ocean Exploration and Research, 2015 Hohonu Moana.

Opportunities for restoration

- Application of World Heritage Convention in high seas?
- Conclusion of experts: minor modifications within the framework of the Convention could allow such protection

01 MAR 2019 | PRESS RELEASE | ECOSYSTEMS

New UN Decade on Ecosystem Restoration offers unparalleled opportunity for job creation, food security and addressing climate change

- The United Nations General Assembly declared 2021 – 2030 the UN Decade on Ecosystem Restoration.
- Restoration could remove up to 26 gigatons of greenhouse gases from the atmosphere.
- UN Environment and FAO will lead the implementation.

01 March 2019, New York – The UN Decade on Ecosystem Restoration, declared today by the UN General Assembly, aims to massively scale up the restoration of degraded and destroyed ecosystems as a proven measure to fight the climate crisis and enhance food security, water supply and biodiversity.

The degradation of land and marine ecosystems undermines the well-being of 3.2 billion people and costs about 10 per cent of the annual global gross product in loss of species and ecosystems services. Key ecosystems that deliver numerous services essential to food and agriculture, including supply of freshwater, protection against hazards and provision of habitat for species such as fish and pollinators, are [declining rapidly](#).

"We are pleased that our vision for a dedicated Decade has become reality," said Lina Pohl, Minister of Environment and Natural Resources of El Salvador, a regional restoration leader. "We need to promote an aggressive restoration program that builds resilience, reduces vulnerability



Opportunities for restoration

- UN Decade on ecosystem restoration, declared by UN General Assembly, 1 March 2019 (2021-2030)
- Call to action – soft law
- “Recalling the commitment to halting and reversing the decline in the health and productivity of our ocean and its ecosystems and to protecting and restoring its resilience and ecological integrity”

Opportunities for restoration

- International standards on ecological restoration
 - Society for ecological restoration (SER) Standards, 2016
 - Legal basis required?
 - Applicable to the marine environment



INTERNATIONAL STANDARDS FOR THE PRACTICE OF ECOLOGICAL RESTORATION – INCLUDING PRINCIPLES AND KEY CONCEPTS

FIRST EDITION: December 2016

Tein McDonald, George D. Gann, Justin Jonson,
Kingsley W. Dixon



I SECTION I - INTRODUCTION

This document, International Standards for the Practice of Ecological Restoration – including Principles and Key Concepts (hereafter, the Standards) has been developed to provide support for the technical application of ecological restoration treatments across all geographic and ecological areas – whether terrestrial, freshwater, coastal or marine – to improve biodiversity conservation outcomes for all ecosystems, secure the delivery of ecosystem services, ensure projects are integrated with socio-cultural needs and realities, and contribute to the 2030 Agenda for Sustainable Development.

Opportunities for restoration

- Call by scientists to substantially increase protection of nature:
 - Half-Earth
 - Nature Needs Half
 - 30x30 blueprint for oceans

Half-Earth is a call-to-action to commit
half of the planet's surface to nature.

WHY ONE HALF?



*"A brave expression of hope, a visionary blueprint for saving the planet."
—STEPHEN GREENBLATT, author of *The Swerve**

HALF- EARTH



*Our Planet's
Fight for Life*

EDWARD O.
WILSON

WINNER OF THE PULITZER PRIZE

If we conserve half the land and sea, 85% of
all species will be protected from extinction
and life on Earth enters the safe zone.

NATURE NEEDS HALF

You know what needs to be done: save nature and end the biodiversity crisis. What you might not know is how we're going to do it. The best contemporary science and traditional wisdom tell us that *nature needs half*. That may seem like a lot, but we have a plan for how to get there and transform the way society thinks about nature.

[Sign The Declaration](#)



Our Purpose

WHAT WE DO

Nature Needs Half is an international coalition of scientists, conservationists, nonprofits, and public officials defending nature at the scale she needs to continue to function for the benefit of all life. And we've got a global ground game in place that will protect 50% of the planet by 2030, turning the tide in favor of Earth's life support systems and transforming

The Pew Charitable Trusts / Research & Analysis / Protecting 30 Percent of the Ocean Brings Multiple Benefits

ANALYSIS

Protecting 30 Percent of the Ocean Brings Multiple Benefits

New literature review highlights widespread agreement among scientific studies

March 21, 2016 | Environmental Science | By Rebecca Goldberg



Marine reserves are widely recognized as vital for conserving both biodiversity and the fish populations. An analysis by Bethan O’Leary and Callum Roberts finds a remarkable consensus that protecting 30 to 40 percent of an ocean area is necessary.

Scientific studies often address narrowly focused questions, but sometimes scientists bundle many answers together to address bigger questions, such as how best to manage the global ocean. A just published review of previous studies, for example, contains a surprising big-picture finding: It pays to set aside at least 30 percent of the sea in marine protected areas (MPAs).

Marine reserves and other types of MPAs are widely recognized as vital for conserving both biodiversity and the fish populations needed for healthy fisheries. However, only about 2 percent of the ocean is currently set aside as fully protected MPAs. In 2010, the United Nations Convention on Biological Diversity set a target of expanding coverage to at least 10 percent of ocean waters by 2020; the full U.N. also adopted this percentage as part of its sustainable development goal on ocean conservation.

About the Author



Rebecca Goldberg
Director
Ocean Science
The Pew Charitable Trusts

Why 30% of the Ocean Should Be Protected



Related Resources

[The High Seas Need Our Help](#)

[Conservation Letters paper](#)

[Protecting Ocean Life on the High Seas](#)

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Oceans

This article is more than 1 month old

Campaign to save oceans maps out global network of sanctuaries

Study creates blueprint to safeguard marine life and enable ocean recovery

Matthew Taylor

Thu 4 Apr 2019 00.01 BST



1374



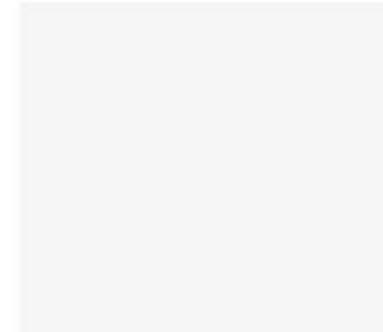
▲ Gentoo penguins in the Antarctic. Photograph: Daniel Beltrá/Greenpeace

Academics have mapped out a network of sanctuaries they say are required to save the world's oceans, protect wildlife and fight climate breakdown.

The study, **ahead of a historic vote at the UN**, sets out the first detailed plan of how countries can protect over a third of the world's oceans by 2030, a target scientists and policy makers say is crucial in order to safeguard marine ecosystems and help mitigate the impacts of a rapidly heating world.

"The speed at which the high seas have been depleted of some of their most spectacular and iconic wildlife has taken the world by surprise," said co-author Prof Callum Roberts from the University of York.

"This report shows how protected areas could be rolled out across international waters to create a net of protection that will help save species from extinction and help them survive in our fast-changing world."



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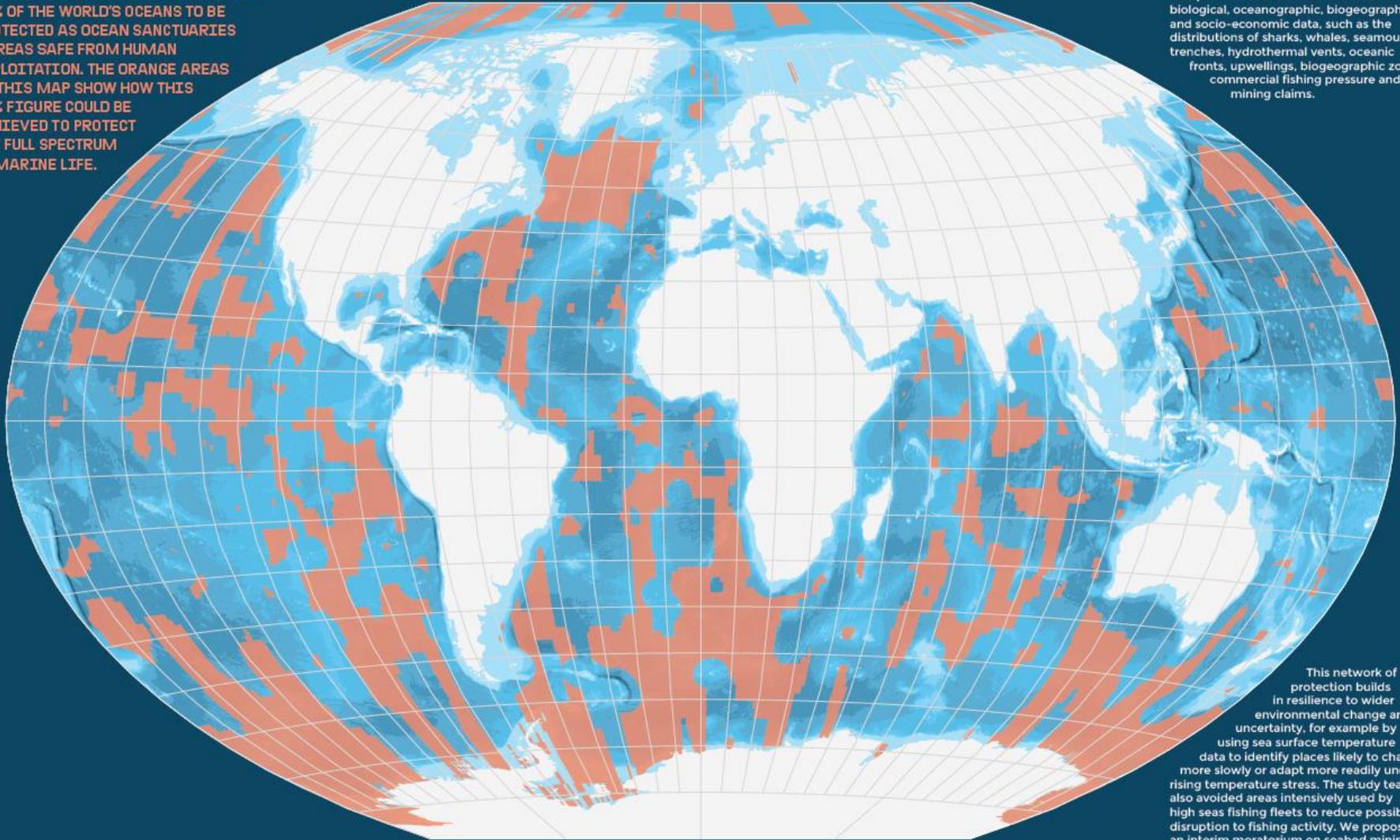


30X30 A BLUEPRINT FOR
OCEAN PROTECTION
How we can protect 30% of our oceans by 2030



WHAT 30% OCEAN PROTECTION COULD LOOK LIKE

SCIENTISTS ARE CALLING FOR AT LEAST 30% OF THE WORLD'S OCEANS TO BE PROTECTED AS OCEAN SANCTUARIES – AREAS SAFE FROM HUMAN EXPLOITATION. THE ORANGE AREAS ON THIS MAP SHOW HOW THIS 30% FIGURE COULD BE ACHIEVED TO PROTECT THE FULL SPECTRUM OF MARINE LIFE.



This protection scenario is based on biological, oceanographic, biogeographical and socio-economic data, such as the distributions of sharks, whales, seamounts, trenches, hydrothermal vents, oceanic fronts, upwellings, biogeographic zones, commercial fishing pressure and mining claims.

This network of protection builds in resilience to wider environmental change and uncertainty, for example by using sea surface temperature data to identify places likely to change more slowly or adapt more readily under rising temperature stress. The study team also avoided areas intensively used by high seas fishing fleets to reduce possible disruption to fishing activity. We propose an interim moratorium on seabed mining to ensure that options are left open as a network of protection is built.



PREPARATIONS FOR THE POST-2020 BIODIVERSITY FRAMEWORK

Preparations for the Post-2020 Biodiversity Framework

CBD // POST-2020 BIODIVERSITY FRAMEWORK

THURSDAY // 7.26.2018



ABOUT THE CONVENTION

- Introduction
- Text of the Convention
- History
- Sustaining Life on Earth
- Strategic Plan
- Post-2020
- UN Decade for Biodiversity
- International Day for Biological Diversity
- Decisions
- Programmes & Issues

PARTIES

- List of Parties
- National Focal Points
- Status of Contributions
- Country Profiles

CONVENTION BODIES

Preparations for the Post-2020 Biodiversity Framework

The fifteenth meeting of the Conference of the Parties in 2020 is expected to update the Convention's strategic plan. This would be done in the context of the 2050 Vision of the current Strategic Plan for Biodiversity 2011-2020 as well the 2030 Agenda for Sustainable Development and other relevant international processes, and in the light of an assessment of progress in achieving the goals and Aichi Biodiversity Targets of the current plan as well as of future scenarios of change.

Call for Inputs

The thirteenth meeting of the Conference of the Parties requested the Executive Secretary to prepare, in consultation with the Bureau and for consideration by the Subsidiary Body on Implementation at its second meeting, a proposal for a comprehensive and participatory preparatory process and timetable for the follow-up to the Strategic Plan for Biodiversity 2011-2020 (decision XIII/1, para. 34). In response to this decision, a proposed process for the preparation of the post-2020 biodiversity framework was made available to the second meeting of the Subsidiary Body on Implementation (SBI).

The SBI, in its recommendation 2/19, requested the Executive Secretary to update, for consideration by the Conference of the Parties at its fourteenth meeting, the proposed preparatory process for the development of the post-2020 global biodiversity framework, taking into account the statements made during the second meeting of the SBI, and further views submitted by Parties, other Governments, indigenous peoples and local communities, relevant international organizations, civil society organizations, women's and youth organizations, private and financial sectors and other stakeholders.

In light of this request any comments as well as any other relevant input, should be sent by e-mail to secretariat@cbd.int by **15 August 2018**. The review comments received to date are accessible [here](#).

Opportunities for restoration

- Next Strategic plan under CBD is being developed (for COP 2020)
- Proposals by parties and observers include increased protection of nature
- A COP Decision or 'Paris' deal for nature?



CBD



Convention on Biological Diversity

Distr.
GENERAL

CBD/POST2020/PREP/1/INF/1
24 January 2019

ORIGINAL: ENGLISH

PREPARATIONS FOR THE POST-2020 BIODIVERSITY FRAMEWORK

SYNTHESIS OF VIEWS OF PARTIES AND OBSERVERS ON THE SCOPE AND CONTENT OF THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

1. The Conference of the Parties at its fifteenth meeting, in 2020, is expected to consider for adoption the post-2020 global biodiversity framework, which will be developed through a preparatory process agreed during the fourteenth meeting of the Conference of the Parties.¹
2. On several occasions,² Parties and observers have been invited to submit views on the process for developing the post-2020 global biodiversity framework. A number of Parties and observers used these invitations to also provide views on the structure and content of the framework. A summary of these views was made available to the Subsidiary Body on Implementation at its second meeting.³
3. At its second meeting, the Subsidiary Body on Implementation requested the Executive Secretary to invite, for submission by 15 December 2018, initial views on the aspects of the scope and content of the post-2020 global biodiversity framework, including (a) the scientific underpinning of the scale and scope of actions necessary to make progress towards the 2050 Vision and (b) a possible structure. The present document is a synthesis of the comments received by 15 January 2019.⁴

Environment ► Climate change **Wildlife** Energy Pollution

Biodiversity

Make half of world more nature-friendly by 2050, urges UN biodiversity chief

Call by **Cristiana Paşca Palmer** comes ahead of a major biodiversity conference in Beijing in 2020

Jonathan Watts

Fri 13 Apr 2018 17:54 BST



1,524



▲ Cristiana Paşca Palmer, executive secretary of the Convention on Biological Diversity. Photograph: Herman n Jorge chege/IISD/ENB

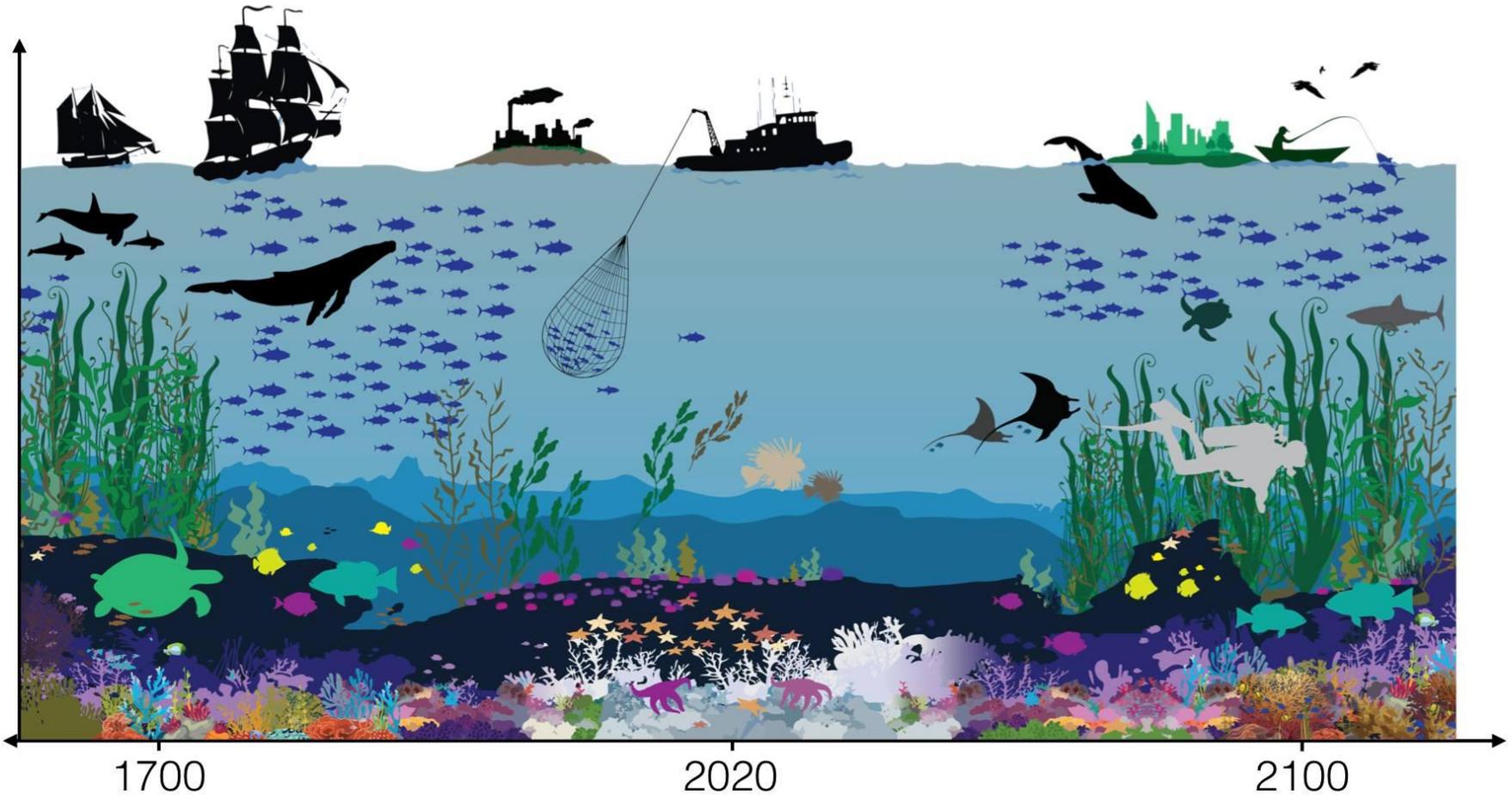
At least half of the world should be made more nature-friendly by 2050 to ensure the wellbeing of humanity, according to the UN chief leading efforts to create a new global pact on biodiversity.

The call to strengthen the world's life support system comes ahead of a major conference in Beijing in 2020 that many hope will be the biodiversity equivalent of the [Paris climate agreement](#).

To reach the goal, nature reserves, ocean protected areas, restoration projects and sustainable land use regions should be steadily expanded by 10% every decade, said Cristiana Paşca Palmer, the executive secretary of the Convention on Biological Diversity.

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Turning the Tide on Species Loss



Opportunities for restoration

- Reduce or end fisheries in high seas
- Scientific research points to benefits for conservation and fisheries!



OPEN ACCESS

PERSPECTIVE

Close the High Seas to Fishing?

Crow White , Christopher Costello

Published: March 25, 2014 • <https://doi.org/10.1371/journal.pbio.1001826>

Article	Authors	Metrics	Comments	Media Coverage
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Abstract

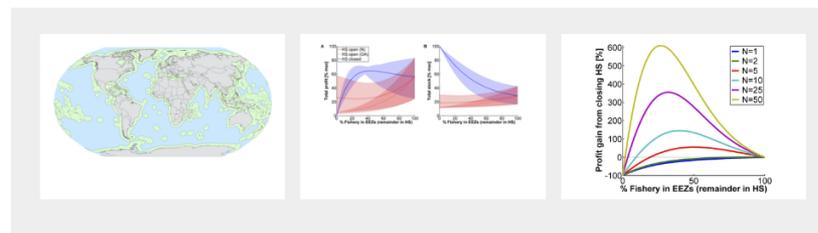
- Introduction
- Modeling High Seas Closure
- From Modeling to Implementation
- Supporting Information
- Acknowledgments
- References

- Reader Comments (0)
- Media Coverage (6)
- Figures

Abstract

The world's oceans are governed as a system of over 150 sovereign exclusive economic zones (EEZs, ~42% of the ocean) and one large high seas (HS) commons (~58% of ocean) with essentially open access. Many high-valued fish species such as tuna, billfish, and shark migrate around these large oceanic regions, which as a consequence of competition across EEZs and a global race-to-fish on the HS, have been over-exploited and now return far less than their economic potential. We address this global challenge by analyzing with a spatial bioeconomic model the effects of completely closing the HS to fishing. This policy both induces cooperation among countries in the exploitation of migratory stocks and provides a refuge sufficiently large to recover and maintain these stocks at levels close to those that would maximize fisheries returns. We find that completely closing the HS to fishing would simultaneously give rise to large gains in fisheries profit (>100%), fisheries yields (>30%), and fish stock conservation (>150%). We also find that changing EEZ size may benefit some fisheries; nonetheless, a complete closure of the HS still returns larger fishery and conservation outcomes than does a HS open to fishing.

Figures



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Stop eating fish. It's the only way to save the life in our seas

George Monbiot



Unhindered by regulation, driven by greed, the fishing industry is the greatest threat to our oceans. We must take action

@GeorgeMonbiot Thu 9 May 2019 06.00 BST

18,545 1,184



Illustration by Sébastien Thibault

It is the most important news humanity has ever received: the general collapse of life on Earth. The vast international assessment of the state of nature, as revealed on Monday, tells us that the living planet is in a death spiral. Yet it's hardly surprising that it appeared on few front pages of British newspapers. Of all the varieties of media bias, the deepest is the bias against relevance. The more important the issue, the less it is discussed.

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No kitchen on your wishlist?

Conclusions

- Oceans are in degraded state
- Scientifically (and legally) it is clear what needs to be done
- What is necessary is:
 - Political will
 - Cooperation between states and with stakeholders
 - (Legal) activism

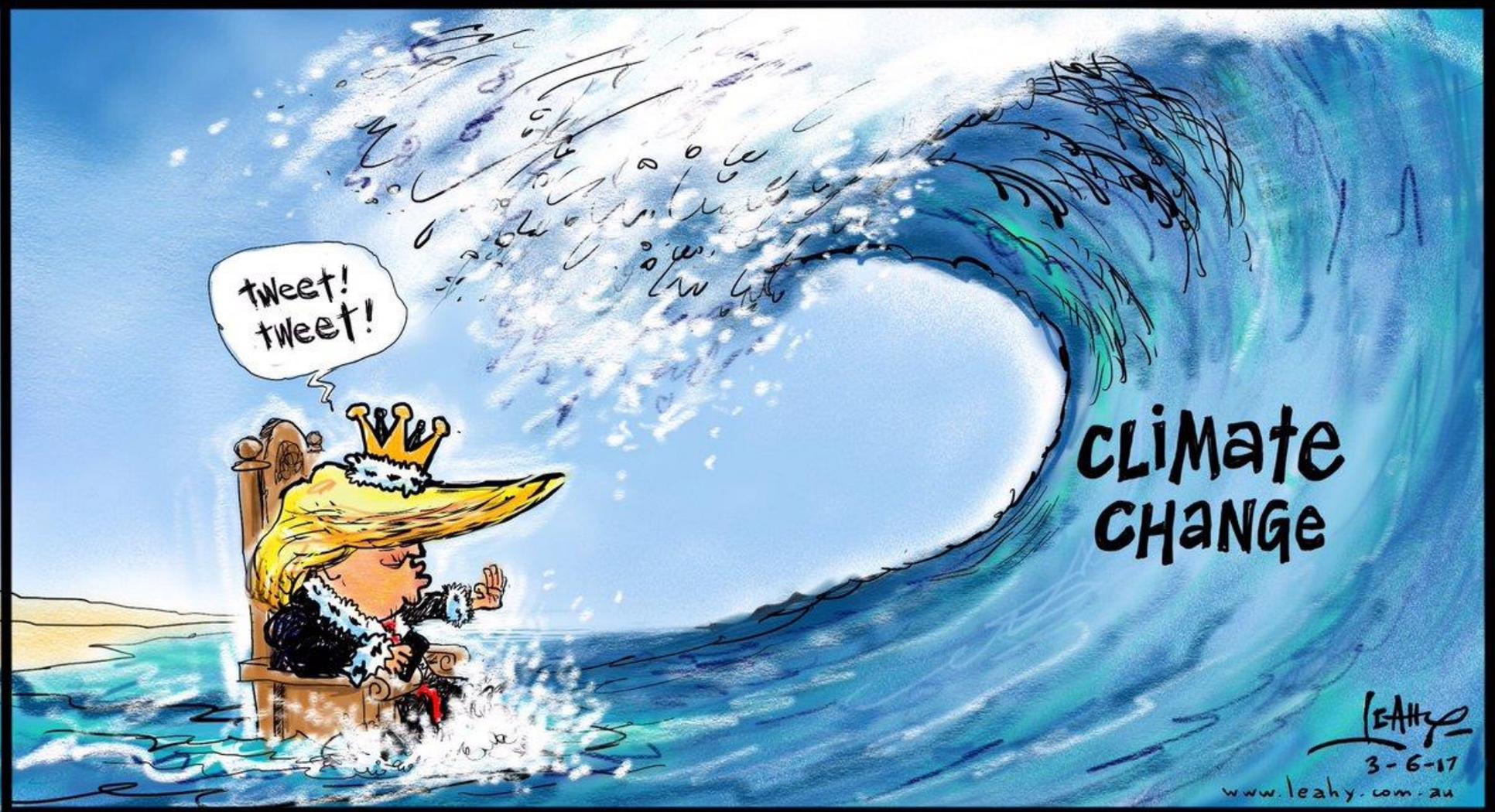
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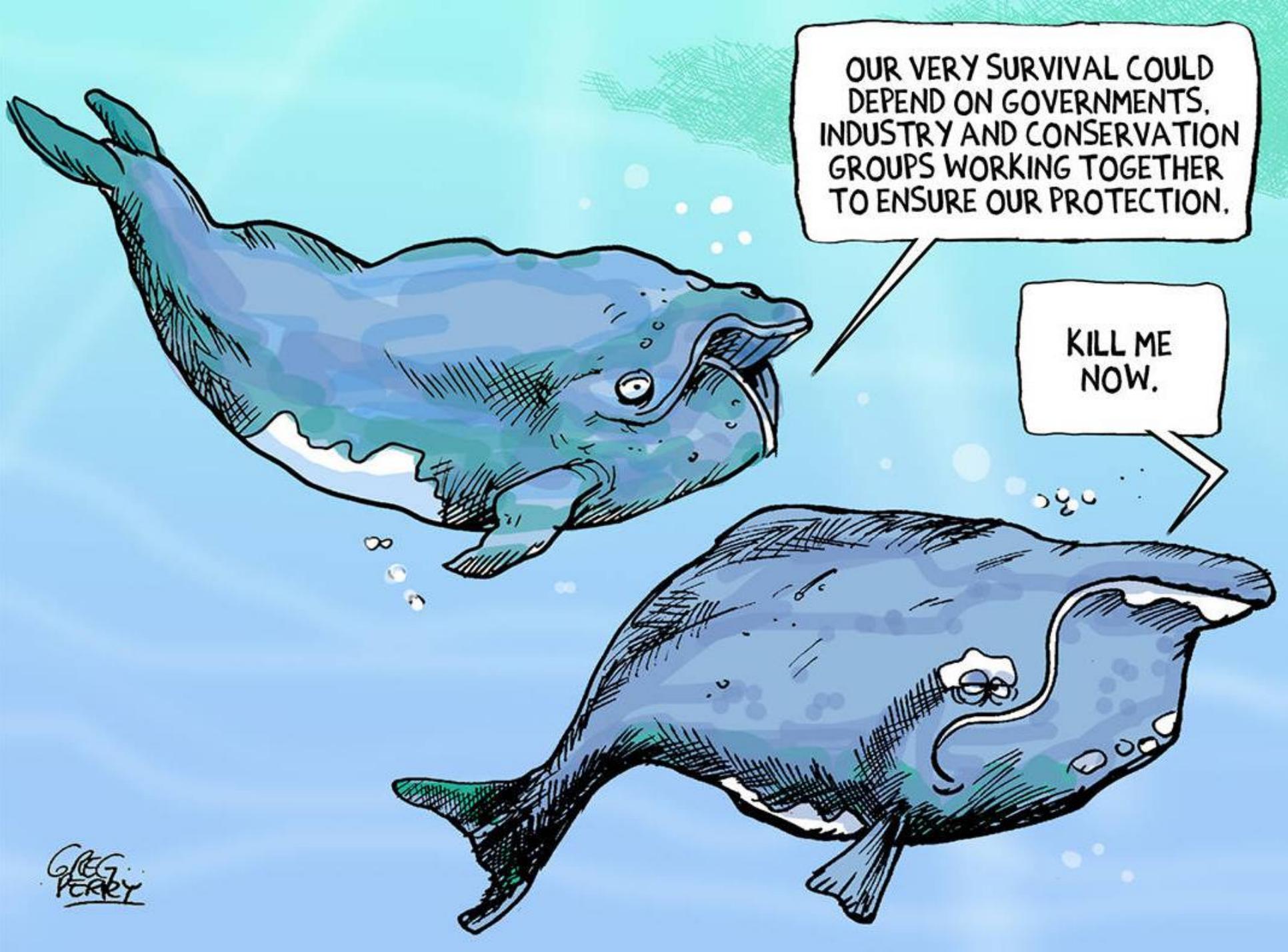
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LIKE THE
OCEANS
WE RISE

A protest sign made of cardboard with a blue wave graphic on the left and the text "LIKE THE OCEANS WE RISE" written in black marker. The sign is held up by a crowd of people, some of whom have green face paint.

