

Addressing the Ocean and Climate Nexus: The Time to Act is Now

Biliana Cicin-Sain
President, Global Ocean Forum

Climate Change, Coasts and Communities Symposium
April 17, 2019, Monmouth University

With support from



The Ocean and Climate Nexus

- The ocean plays a key role in regulating the climate system producing oxygen, storing carbon, and absorbing anthropogenic heat. In turn, changes in the climate have significant impacts on the ocean, including ocean warming, acidification, deoxygenation, sea level rise, and altering currents and oceanographic conditions, all of which have accelerated significantly in recent years, and all of which have significant impacts on peoples and economies.
- The wide range of impacts arising from climate change on the oceans and on peoples and economies in 183 coastal and island nations demands urgent action and investment to protect marine environments and peoples and economies and should be addressed at all levels of policymaking both for the survival of planetary health and for human well-being.

Oceans Day at the UNFCCC COP 21 Paris

December 4, 2015, Rio Conventions
Pavilion, Le Bourget



The Oceans Action Event at COP 22

Oceans Action Day at COP 22 Marrakech, part of the Global Climate Change Agenda

12 November 2016 • Blue Zone (9:30–21:00)



COP 23 OCEANS ACTION DAY PROGRAM

Marrakech Partnership for Global Climate Action

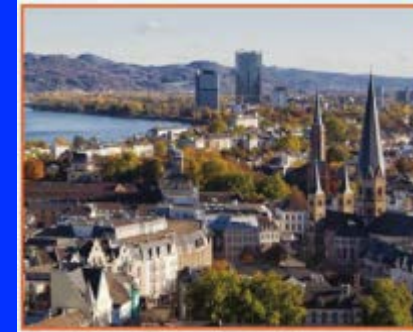
23rd Session of the Conference of the Parties (COP) to the United Nations Framework
Convention on Climate Change, Bonn, Germany



Oceans Action Day

Saturday, November 11, 2017 — 10:00 AM to 7:30 PM

Marrakech
Partnership



Oceans Action Day at COP 24



December 8, 2018, International Congress Centre,
COP 24, Katowice, Poland



Examples of High Level Speakers at Oceans Action Days



H.S.H Prince Albert II, Sovereign
Prince of Monaco



H.E. Minister Ségolène Royal, Minister of
Ecology, Sustainable Development and Energy,
France



Dr. Irina Bokova, Director-General, United
Nations Educational, Scientific and Cultural
Organization (UNESCO)



Ambassador Ronald Jumeau
Seychelles



Mr. Luke Daunivalu, Ministry of Foreign Affairs,
Fiji, Member, SIDS, UNFCCC Adaptation
Committee



Dr. Angus Friday, Ambassador to
the United States, Grenada



Dr. Bráulio Ferreira de Souza Dias, Executive Secretary,
Convention on Biological Diversity Secretariat



Mr. Karmenu Vella, Commissioner on
Environment, Maritime Affairs and Fisheries,
European Commission



Ms. Paula Caballero, Senior Director,
Environment and Natural Resources
Global Practice, World Bank



Dame Meg Taylor, Secretary-
General, Pacific Islands Forum
Secretariat



Dr. Hashali Hamukuaya, Executive Secretary,
Benguela Current Commission, GEF/UNDP/UNEP
African Large Marine Ecosystem Projects



Dr. Vladimir Ryabinin, Executive
Secretary, Intergovernmental
Oceanographic Commission/UNESCO



Dr. Colin Tukuitonga, Director
General, Secretariat of the Pacific
Community (SPC)

Toward a Strategic Action Roadmap on Oceans and Climate: 2016 to 2021



**Policy Recommendations on Oceans and Climate for Consideration
at UNFCCC COP 22 and Beyond**

Prepared with the support of:



Part of the Global Strategic Action Initiative on Oceans and Climate



Assessing Progress on Ocean and Climate Action: 2016-2017

A Report of the Roadmap to Oceans and Climate Action (ROCA) Initiative

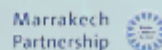


Lead authors: Meredith Kurz and Biliana Cicin-Sain, Global Ocean Forum and University of Delaware
With contributions from: Tarub Bahri, Food and Agriculture Organization of the UN; Miriam Balgos, Global Ocean Forum; Dorothee Herr, IUCN; Peter Journeay-Kaler, IRENA; Lisa Levin, Scripps Institution of Oceanography; Atsushi Sunami and Miko Maekawa, OPRI-SPF; Carol Turley, Plymouth Marine Laboratory; Philippe Vallette, World Ocean Network; Marjo Vierros, Global Ocean Forum; John Virdin, Duke University; Andrea Weber, European Commission



COP 23 Version for Comment

This report is issued as an interim version for consideration and comment at the UNFCCC COP 23, Bonn Germany, especially at the Oceans Action Day at COP 23, part of the Marrakech Partnership for Global Climate Action



A final version will be following COP 23

Comments may be sent to Dr. Biliana Cicin-Sain, Global Ocean Forum, bilianacicin-sain@globaloceans.org

ROCA Leadership



Initial Partners



Supported by the Oceano Azul Foundation, Portugal, and the Ocean Policy Research Institute of the Sasakawa Peace Foundation, Japan

Available at <https://roca-initiative.com/oceans-action-day-at-cop-24/>



Assessing Progress on Ocean and Climate Action: 2018

A Report of the Roadmap to Oceans and Climate Action (ROCA) Initiative



Authors: Biliana Cicin-Sain, Alexis Maxwell, Miriam Balgos, Meredith Kurz, Brian Cortes, Vanessa C.S. Knecht, Global Ocean Forum and University of Delaware; Carol Turley, Plymouth Marine Laboratory; Tarub Bahri, FAO; Dorothee Herr, IUCN; Kirsten Isensee, IOC, UNESCO; Peter Ricketts, Acadia University and Coastal Zone Canada; Atsushi Sunami, Miko Maekawa, Masanori Kobayashi, OPRI, Sasakawa Peace Foundation, Japan; John Virdin, Tibor Vegh, Duke University and ROCA; Torsten Thiele, Ocean Trust

**Authors are participating in their informal capacities*

COP 24 Version for Comment

This report is issued as an interim version for consideration and comment at the UNFCCC COP 24, Katowice Poland, especially at the Oceans Action Day at COP 24

A final version will be issued following COP 24

Comments may be sent to Dr. Biliana Cicin-Sain, Global Ocean Forum, bilianacicin-sain@globaloceans.org

ROCA Leadership



Initial ROCA Partners

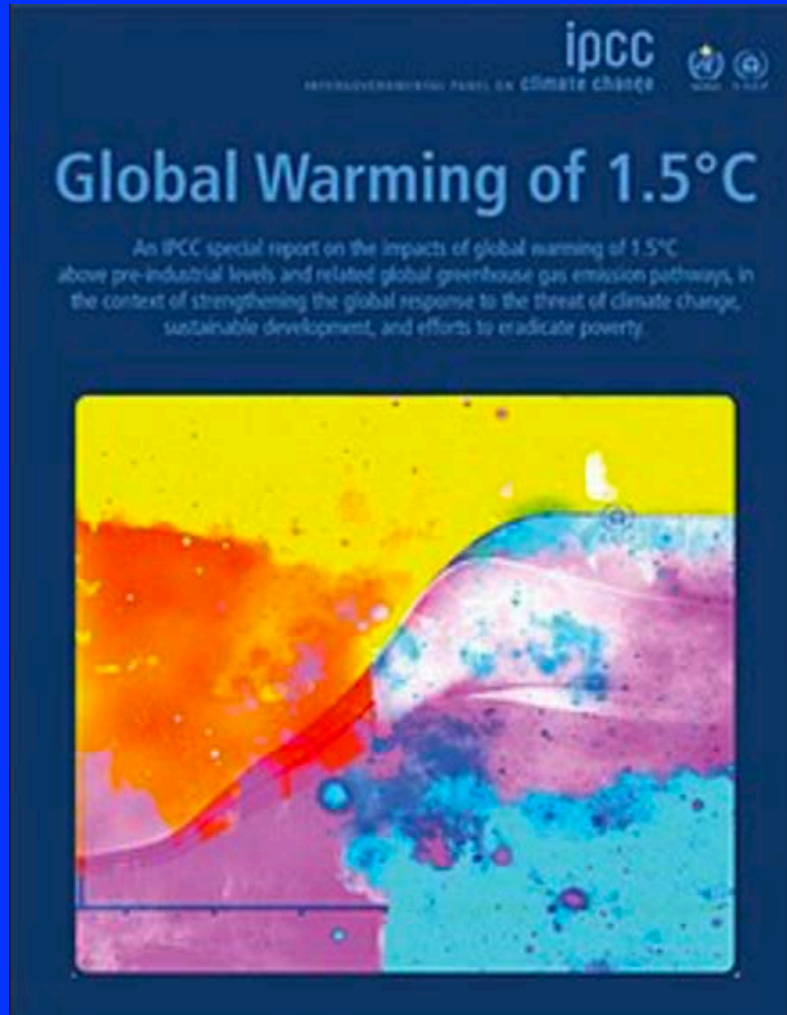


Supported by the Oceano Azul Foundation, Portugal, and the Ocean Policy Research Institute of the Sasakawa Peace Foundation, Japan

Agenda for Action

- 1. Approach the Oceans and Climate Issues in an Integrated Manner**
- 2. Constantly Monitor and Assess the Impacts of Climate Change on the Oceans and on Coastal Areas and Peoples**
- 3. Mobilize National and International Policy Responses to the Oceans and Climate Nexus**

IPCC 1.5°C Report



The IPCC Special Report on Global Warming of 1.5°C (2018)

--An outcome of the UNFCCC COP21, SIDS nations push for “1.5°C to stay alive”

--A landmark report with far reaching implications for all climate change action and with special relevance to oceans and coasts

IPCC 1.5°C Report

- The predicted impacts of climate change are coming **much earlier** than expected
 - We will most likely **reach a warming of 1.5°C as early as 2030 and no later than 2052**, posing immediate threats to peoples and ecosystems around the world, especially in 183 coastal countries and SIDS
- There is a **marked difference** between keeping to a 1.5°C scenario versus a 2°C scenario
 - Under a 1.5°C scenario, **very adverse impacts may be avoided** (displacement of millions of people due to sea level rise, increased frequency and intensity of storms, death of coral reefs)
- Limiting global warming to 1.5°C will require '**rapid and far-reaching**' transitions in land, energy, industry, buildings, transport, and cities

Implications of the IPCC 1.5°C Report

Amjad Abdulla, Alliance of Small Island States and IPCC Board member noted: *“....I have no doubt that historians will look back at these findings as one of the defining moments in the course of human affairs. I urge all civilized nations to take responsibility for it by dramatically increasing our efforts to cut the emissions responsible for the crisis and to do what is necessary to help vulnerable people respond to some of the devastating consequences we now know can no longer be avoided.”*



Amjad Abdulla, Maldives, speaking on behalf of the Alliance of Small Island States (AOSIS)

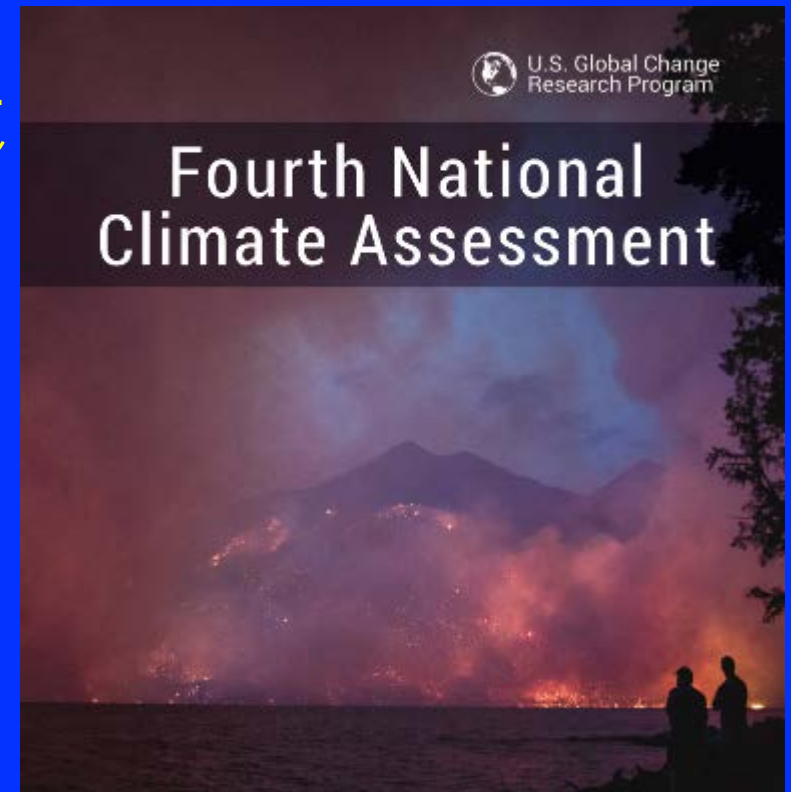


US 2018 Climate Change Report

--Other reports evoke a number of points raised in the IPCC 1.5°C report

--For example, the US Climate Change report (November 2018) examines developments at a national level in the United States

--The US Report underlines that negative impacts of climate change **are not a hypothetical future scenario but are already causing damages to US lives and livelihoods**through a combination of **ocean warming, sea level rise, ocean acidification, coastal erosion, more intense storm surge, and an increased number of heavy precipitation events**



Agenda for Action

- 1. Approach the Oceans and Climate Issues in an Integrated Manner**
- 2. Constantly Monitor and Assess the Impacts of Climate Change on the Oceans and on Coastal Areas and Peoples**
- 3. Mobilize National and International Policy Responses to the Oceans and Climate Nexus**

1. Address the Ocean and Climate Nexus in an Integrated Manner

- Ocean and climate issues should be addressed at all levels of policy (national, subnational, international) **as an inter-related “package” of issues** including *inter alia*:
 - Recognizing the central role of oceans in climate
 - Mitigation (e.g., ocean energy, Blue Carbon, reduce air emissions from ships, carbon capture and storage)
 - Adaptation
 - Blue Economy
 - Population displacement
 - Financing
 - Capacity development

2. Constantly Monitor and Assess the Impacts of Climate Change on the Oceans and on Coastal Areas and Peoples



Assessing Progress on Ocean and Climate Action: 2016-2017

A Report of the Roadmap to Oceans and Climate Action (ROCA) Initiative

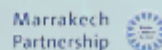


Lead authors: Meredith Kurz and Biliana Cicin-Sain, Global Ocean Forum and University of Delaware
With contributions from: Tarub Bahri, Food and Agriculture Organization of the UN; Miriam Balgos, Global Ocean Forum; Dorothée Herr, IUCN; Peter Journeay-Kaler, IRENA; Lisa Levin, Scripps Institution of Oceanography; Atsushi Sunami and Miko Maekawa, OPRI-SPF; Carol Turley, Plymouth Marine Laboratory; Philippe Vallette, World Ocean Network; Marjo Vierros, Global Ocean Forum; John Virdin, Duke University; Andrea Weber, European Commission



COP 23 Version for Comment

This report is issued as an interim version for consideration and comment at the UNFCCC COP 23, Bonn Germany, especially at the Oceans Action Day at COP 23, part of the Marrakech Partnership for Global Climate Action



A final version will be following COP 23

Comments may be sent to Dr. Biliana Cicin-Sain, Global Ocean Forum, bilianacicin-sain@globaloceans.org

ROCA Leadership



Initial Partners



Supported by the Oceano Azul Foundation, Portugal, and the Ocean Policy Research Institute of the Sasakawa Peace Foundation, Japan

Available at <https://roca-initiative.com/oceans-action-day-at-cop-24/>



Assessing Progress on Ocean and Climate Action: 2018

A Report of the Roadmap to Oceans and Climate Action (ROCA) Initiative



Authors: Biliana Cicin-Sain, Alexis Maxwell, Miriam Balgos, Meredith Kurz, Brian Cortes, Vanessa C.S. Knecht, Global Ocean Forum and University of Delaware; Carol Turley, Plymouth Marine Laboratory; Tarub Bahri, FAO; Dorothée Herr, IUCN; Kirsten Isensee, IOC, UNESCO; Peter Ricketts, Acadia University and Coastal Zone Canada; Atsushi Sunami, Miko Maekawa, Masanori Kobayashi, OPRI, Sasakawa Peace Foundation, Japan; John Virdin, Tibor Vegh, Duke University and ROCA; Torsten Thiele, Ocean Trust

**Authors are participating in their informal capacities*

COP 24 Version for Comment

This report is issued as an interim version for consideration and comment at the UNFCCC COP 24, Katowice Poland, especially at the Oceans Action Day at COP 24

A final version will be issued following COP 24

Comments may be sent to Dr. Biliana Cicin-Sain, Global Ocean Forum, bilianacicin-sain@globaloceans.org

ROCA Leadership



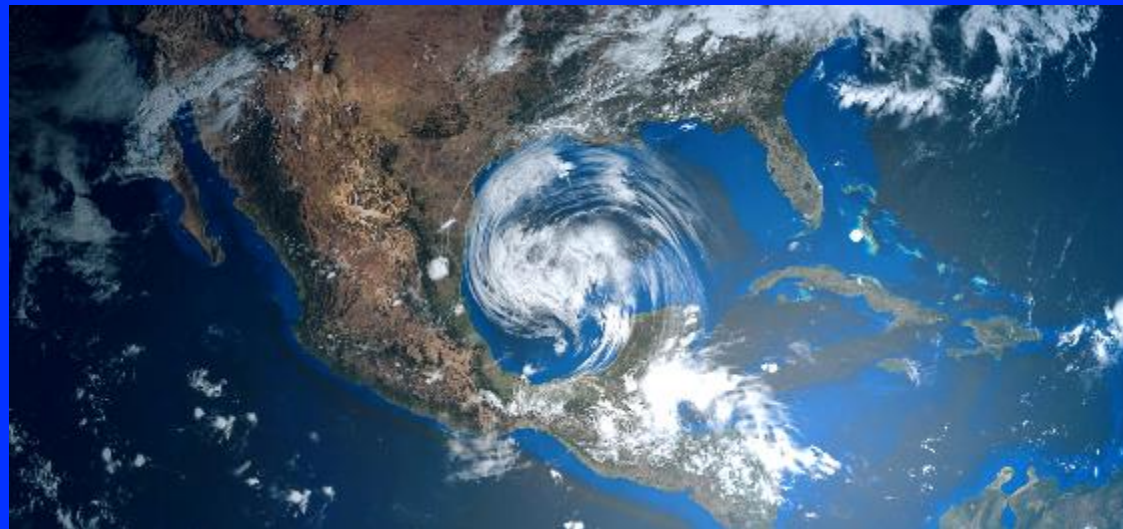
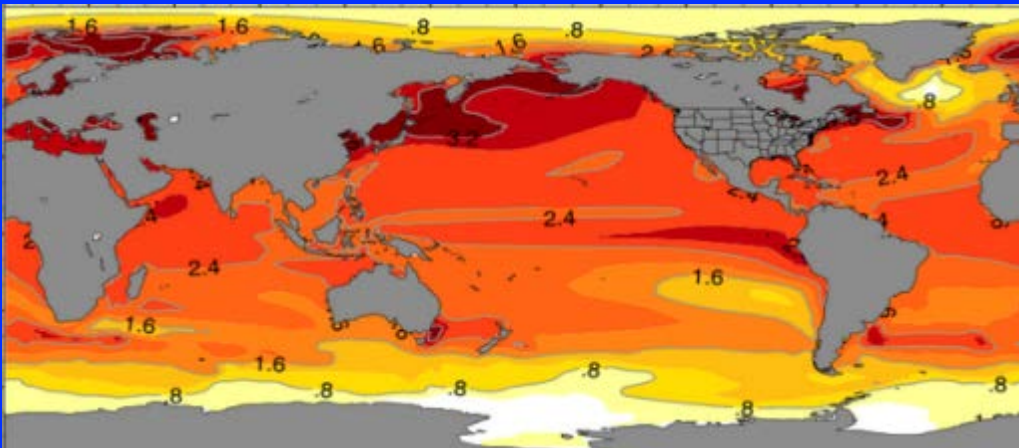
Initial ROCA Partners



Supported by the Oceano Azul Foundation, Portugal, and the Ocean Policy Research Institute of the Sasakawa Peace Foundation, Japan

Troubling Trends

Ocean warming 2015, 2016,
2017 warmest years on record



Unprecedented tropical storms in 2017 and 2018



Tropical
coral reefs unlikely
to survive at
current emission
rates



Weakening Atlantic circulation

Troubling Trends Cont.

Continuing loss of Arctic sea ice



Reduction in fish catch by 30% in tropics by 2050 with 1.4 billion people at risk



Acidity of the global ocean increasing 30% relative to pre-industrial times



Troubling Trends Cont.



Damages to coastal infrastructure and peoples around the globe



Increased population displacement due to environmental disasters and climate change—140 million people could be displaced by 2050

For SIDS the threat of sea level rise is four times the global average. Some face submergence and trillions of dollars in losses



Encouraging Policy Responses

**70% of
Nationally
Determined
Contributions
address ocean
and coastal
issues**



**Increased commitment
by the International
Maritime Organization
(IMO) to reduce 50%
of emissions from
shipping by 2050**



**Worldwide restoration of lost
Mangroves resulting in avoided emissions**



**Increased effort of
the Renewable
Energy Agency
(IRENA) in building
energy
independence for
Small Island
Developing States**

Encouraging Policy Responses Cont.

World Bank 1 billion USD commitment to advance the sustainable oceans and Blue Economy agenda in developing countries



New financing initiatives like the Blue Natural Capital Financing Facility (BNCFF) have emerged



World's largest offshore wind facility in the United Kingdom

The Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) have increased adaptation projects and programs



Encouraging Policy Responses Cont.



Our Ocean Conference in Bali, Indonesia, resulted in 48 tangible and measurable commitments specifically regarding the blue economy

The European Union has maintained investment supporting an All-Atlantic Ocean Research Alliance, with research teams from the Arctic to the Antarctic



Emergence of private-sector finance, such as corporate climate bonds

3. Mobilize National and International Institutions on the Oceans and Climate Nexus

- *National level:* Decarbonization of national economies, move to alternative sources of energy, address the impacts on coastal and island communities and economies
- *International level:*
 - Act within the UNFCCC and in other international fora
 - But difficult to advance the oceans and climate issues in UN fora given separate authorities on oceans, climate, biodiversity, etc.

Within the UNFCCC

A step by step approach was identified in 2018 to develop a vision and agenda related to the oceans and climate nexus for the period 2019-2021.

COP 25 Chile, the “Blue COP”?

- 1. Consider two IPCC Reports and their implications for mitigation and adaptation related to oceans and coastal and island populations**
- 2. Consider points related to oceans and coasts in the Paris Rulebook and in the Global Stocktake**
- 3. Support the ocean content and ambition of Nationally Determined Contributions (NDCs)**
- 4. Ocean financing to support nations in addressing the multiple and difficult challenges they are facing, and systematic understanding of the existing patterns of financial flows**

Within Other UN and International Fora

Work and discussions on the oceans and climate nexus taking place in the context of the UNFCCC must also be synchronized and coordinated with oceans and climate initiatives in other UN fora

- 2019, G20 Summit, Osaka, Japan, June 28-29, preceded by S20 Science 20
- 2019 UN Secretary General's Climate Summit, September 23, 2019
- Release of the IPCC Report on Ocean and the Cryosphere, September 2019
- Work on the *Decade of Ocean Science for Sustainable Development*
- Implementation of Agenda 2030 (especially Goal 14 (oceans) and Goal 13 (climate change))
- Bringing the climate issues into the BBNJ negotiations (biodiversity in areas beyond national jurisdiction) (ongoing)
- 2020 projected UN Ocean Conference

Increased informal efforts led by specific nations

- Our Ocean Conferences in Norway in 2019, and Palau in 2020

The IPCC Ocean and Cryosphere Report

- **The IPCC Report on the Ocean and Cryosphere, to be released September 19-23, 2019 in Monaco, will give us a key opportunity to focus the world's attention on the effects of climate change on oceans and coasts and how we address these impacts**
- **Efforts underway to bring key journalists and key scientists together to interpret and widely disseminate the findings**

In Conclusion

- We must do our work with a great sense of urgency. A changing climate and continued loss of biodiversity in our oceans and coasts, is a powerfully negative combination that threatens our planetary survival and our human well-being.
- The time to act is now, not tomorrow. As the very young people exemplified by young Helga of Sweden have said—“Your lack of action is denying us our future.” This just cannot be.

Acknowledgements--COP 24 and 2018 Progress Report Support

COP 24 Oceans Action Day: *Ocean Policy Research Institute of the Sasakawa Peace Foundation, Japan ; Oceano Azul Foundation, and the Government of Sweden, The Ocean Pathway (Governments of Fiji and Sweden), Intergovernmental Oceanographic Commission, UNESCO, Food and Agriculture Organization of the United Nations, International Union for the Conservation of Nature*

Progress Report 2018 Contributors: *Biliana Cicin-Sain, Alexis Maxwell, Miriam Balgos, Meredith Kurz, Brian Cortes, Vanessa C.S. Knecht, Global Ocean Forum and University of Delaware; Carol Turley, Plymouth Marine Laboratory; Tarub Bahri, FAO; Dorothee Herr, IUCN; Kirsten Isensee, IOC, UNESCO; Peter Ricketts, Acadia University and Coastal Zone Canada; Atsushi Sunami, Miko Maekawa, Masanori Kobayashi, OPRI, Sasakawa Peace Foundation, Japan; John Virdin, Tibor Vegh, Duke University and ROCA; Torsten Thiele, Ocean Trust*