

Introduction

The purposes of this proposed **Strategic Action Roadmap on Oceans and Climate 2016 to 2021** are: 1) to suggest priority action items in each of six ocean and climate issue areas—central role of oceans in climate, mitigation, adaptation, displacement, financing, and capacity development (including scientific assessment and public education), and 2) to convey this information and policy priorities to decision-makers and multiple stakeholders at global levels, especially within the UN Framework on Climate Change (UNFCCC) and other relevant international processes, and to national governments as they are the main agents for policy implementation.

The draft Action Roadmap presents an analysis and a set of policy recommendations emerging from the work of the International Expert Working Group on Oceans and Climate, composed of 37 experts from the 46 partner organizations of the Oceans Day at COP 21 (held at the UNFCCC Conference of the Parties 21 (COP 21), Paris, on December 4, 2015), and coordinated by the Global Ocean Forum; IOC/UNESCO; UNEP; Sasakawa Peace Foundation, Japan; and the University of Delaware Gerard J. Mangone Center for Marine Policy, together with other co-organizers.

For each of the major issues related to oceans and climate members of the International Working Group were asked to analyze: 1) the current status of the issue (and, as relevant, the science related to the issue); 2) the current state of play of the issue within the UNFCCC; 3) the opportunities and pathways that may be available within the UNFCCC to advance the issue in the next five years, 4) the opportunities and pathways that may be available outside of the UNFCCC to advance the issue; 5) financial considerations regarding each issue. The draft policy recommendations were showcased at the Oceans Day at COP 21, and then further refined in the months following the COP 21.

A summary of the policy recommendations and suggested strategic actions may be found in the Executive Summary as well as in Box I.3, on pages 9-10; the recommendations are discussed in detail in the relevant report sections of the report.

The Global Strategic Action Initiative on Oceans and Climate (involving Parties, international agencies, NGOs, scientific institutions, private sector, and local authorities) will be launched at COP 22 to begin implementation of the Roadmap including, through, inter alia: further operationalization of the major components, including development of specific targets, indicators, and timetables; mobilization of resources; implementation of specific actions in each of the major areas on oceans and climate jointly with national and local level leaders and other partners; development of a knowledge management and reporting mechanism to report to the COP yearly.

The reader should note that this effort represents work in progress and is open to all interested UNFCCC Parties, international organizations, NGOs, and private sector wishing to contribute to advancing the issues related to oceans and climate in the next five years.

The Central Role of Oceans in Planetary Survival and in Human Economic and Social Well-being

Oceans are essential to supporting life on Earth, and are of great economic, social, and cultural significance to all countries, including 183 coastal countries and island states.

Oceans are the life support system of the planet, producing half of the oxygen that we breathe. Since industrialization began, they have absorbed nearly 28% of carbon dioxide in the atmosphere, 93% of the heat added to the global system (between 1971 and 2010), and nearly all the water from melting ice, resulting in ocean warming, ocean acidification, and sea level rise.¹ However, anthropogenic climate change is threatening the critical role of oceans and seas in climate regulation, marine biodiversity and marine ecosystem integrity, food security, livelihoods, human well-being, and the global economy.

Ocean and coastal areas provide critical social, economic, and nutritional benefits and are essential to the well-being of global and national economies. It is estimated that the ocean provides an estimated

US\$3-6 trillion to the global economy,² supports 90% of global trade through shipping; and fisheries nourish around 4.2 billion people with more than 15% of the animal protein they consume.³

However, coastal and island populations, who rely most on the services provided by the sea, are some of the most vulnerable populations to climate change impacts. Oceans, seas, and coastal areas experience an increased frequency and intensity of climate extremes, including stronger hurricanes, typhoons, and cyclones. They are also subject to ocean warming, acidification and deoxygenation, sea level rise, and fluctuations in ocean circulation and salinity—due to increased CO₂ emissions to the atmosphere, mainly due to burning fossil fuels. By 2050, it is estimated that 50 million to 200 million people worldwide will be displaced due to the negative impacts of climate change, threatening food security, livelihoods, and peace.⁴

It is imperative that climate change impacts on oceans and coastal and SIDS populations be considered both within and outside the UNFCCC, both for our planetary survival and for human well-being.

International Recognition of the Role of Oceans in Planetary Survival and in Human Economic and Social Well-being

Peoples and governments around the world understand and appreciate the central role of oceans in planetary survival and human well-being. Oceans have been prominently featured in the 1992 Earth Summit (Chapter 17, the longest chapter of Agenda 21), in the specific targets and timetables developed at the 2002 World Summit on Sustainable Development, and in the 2012 Rio+20 Conference (in particular in the outcome document, *The Future We Want*).⁵ These summits have also underlined the important role of the 1982 UN Law of the Sea Convention for sustainable development, which sets out the legal framework within which all activities in the oceans and seas must be carried out. Most recently, in 2014-2015, oceans and seas have been recognized as one of the 17 Sustainable Development Goals to be included in the UN 2030 development agenda.⁶ Goal 14 reads “Conserve and sustainably use the oceans, seas, and marine resources for sustainable development,” and its inclusion as a balanced, stand-alone goal appropriately underscores the importance of ocean issues.⁷ It is broken into practical, ambitious sub-goals, including targets such as the conservation of “at least

10 per cent of coastal and marine areas,” the expansion of “economic benefits to SIDS and LDCs from the sustainable use of marine resources,” and the prevention of “marine pollution of all kinds.”⁸ As well, the UN General Assembly has emphasized the “critical role of oceans and seas for climate regulation, food security, livelihoods, human well-being, and more generally for the global economy.”⁹

Since 2006, the United Nations General Assembly (UNGA) has addressed issues related to climate change and oceans in its resolutions on oceans and the law of the sea.¹⁰ In particular, for several years, the UNGA has reiterated its serious concern at the current and projected adverse effects of climate change, ocean deoxygenation, and ocean acidification on the marine environment and marine biodiversity, and emphasized the urgency of addressing these issues. The UNGA has encouraged scientific activity to better understand the effects of climate change on the marine environment and marine biodiversity, the oceans-atmosphere interface and to develop ways and means of adaptation, taking into account, as appropriate, the precautionary approach and ecosystem approaches. In this context, the Assembly underlined the importance of ensuring that assessments, such as those prepared under the Intergovernmental Panel on Climate Change, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-economic Aspects (the Regular Process), support one another and avoid unnecessary duplication. The UNGA called upon the international community to enhance its efforts to address sea-level rise and coastal erosion and addressed the vulnerabilities of specific ecosystems, such as the need to improve efforts to address coral bleaching; and the vulnerability of the environment and the fragile ecosystems of the polar regions, including the Arctic Ocean and the Arctic ice cap.¹¹

Following the publication of the IPCC Fifth Assessment Report, the General Assembly has recognized the importance of raising awareness of the adverse impact of climate change on the marine environment and marine biodiversity, including in the context of the United Nations Framework Convention on Climate Change (UNFCCC) and noted the role of “Oceans Day at the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.”¹²

In its resolutions on sustainable fisheries, the General Assembly has expressed concern over the current and projected adverse effects of climate change on food security and the sustainability of fisheries and urged States, either directly or through appropriate subregional, regional or global organizations or arrangements, to intensify efforts to assess and address the impacts of global climate change and ocean acidification on the sustainability of fish stocks and the habitats that support them, in particular the most affected ones.¹³

In the context of UNFCCC, however, until COP 21 (November/December 2015 in Paris, France), the ocean and climate issues had figured only in a limited way in the formal UNFCCC deliberations. In the original formulation of the Convention in 1992, oceans and coasts are referred in two places.¹⁴ With the advent of Oceans Days at the COPs (Oceans Days have been held at Copenhagen in 2009, Cancun in 2010, Durban in 2011,¹⁵ and in Paris in 2015), and through the enhanced participation by many civil society, academic, and observer groups starting especially at the 2009 Copenhagen COP, there has been enhanced awareness and understanding in the UNFCCC processes of some of the oceans and climate issues, especially regarding the impacts of sea level rise, ocean deoxygenation, and of ocean acidification, and of the role of “Blue Carbon” in carbon sequestration and storage.

Experts and actors in the ocean community have called for oceans to play a more central role in the UNFCCC context, since they understand that the oceans play a central role in climate and that it is the largest carbon sink. The ocean is the primary regulator of Earth’s climate and weather, produces 50% of the oxygen in the atmosphere and fixes 50% of global primary production. The ocean is also an important recycler of waste and an enormous store of carbon, substantially greater than the land biosphere or in the atmosphere. It plays a key role in the global water and carbon cycles. It especially influences the climate through the regulation of the amount of CO₂ and heat in the atmosphere. Coastal ecosystems, such as mangroves, salt marshes, seagrass, and kelp beds take up, lay down, and store great amounts of carbon while also protecting shorelines from storms. Many of these planetary roles are literally priceless and are performed by a series of biogeochemical processes regulated by marine organisms as well as the important physical processes of ocean mixing, tides, currents, and air–sea exchange.

It is important to recall, however, that the UNFCCC is an international agreement about reducing and controlling emissions of greenhouse gases, and that promotion of the oceans agenda within the UNFCCC must conform to the mandate, language, and processes of the UNFCCC, and to its central missions of setting global targets on greenhouse emissions reductions, monitoring systems, and providing guidance and assistance to all nations and actors to implement these successfully at global, national, and subnational levels. This proposed Action Roadmap aims to put the oceans and climate issues in the context of the UNFCCC mandate, language, and processes, as an essential step in the process of achieving the desired policy results regarding the impacts of climate change on oceans and on island and coastal communities around the world.

Mobilization of the Ocean Community at COP 21

COP 21 in Paris saw unprecedented mobilization of the oceans community from around the world to articulate the central importance of oceans in the climate system and to underscore that coastal populations and SIDS will need enhanced capacity and financial resources to address the adverse impacts of climate change. Over 150 parties and organizations were mobilized (including governments, international organizations, IGOs, NGOs, academia and science groups, and private sector), and over 40 ocean events were held to highlight the oceans and climate issues.

The Oceans Day at COP 21

The high-level Oceans Day at COP 21 (held on December 4, 2015 in Paris) brought together over 400 participants from all regions and lent political support to the adoption of the ambitious Paris Agreement, and put forth an agenda for action for the next five years on oceans and climate. It stressed the need for recognizing the central role of the oceans in regulating climate, and the fact that the ocean will not be able to perform these functions in the future if GHG emissions and global warming continue unabated.¹⁶

The Oceans Day at COP 21:

- Highlighted the major climate and oceans issues, with emphasis on the impacts on the most vulnerable peoples and ecosystems, suggesting next steps, both within and outside the UNFCCC framework

- Engaged political leaders to move forward on the major climate and oceans issues and solutions
- Mobilized collaboration in the development of a five-year strategic plan on oceans and climate to guide policy and action

The Oceans Day at COP 21 was organized by 46 entities, from governments, international agencies, IGOs, NGOs, and academic and scientific institutions, representing a broad alliance of interests and perspectives related to oceans and climate, noted in Box I.1.

Oceans Day at COP 21 involved high-level speakers from governments, leaders of IGOs and NGOs, and technical experts, as highlighted in Box I.2. For each of the major issues discussed (Central role of oceans in climate, Mitigation, Adaptation, Displacement, Financing, and Capacity Development), members of the International Expert Working Group on Oceans

and Climate presented stage-setting papers presenting on the status of the issue, its importance, and strategic steps that could be taken to advance the issue in the next five years, both within and outside of the UNFCCC.

The Oceans Day at COP 21 stressed the need for concluding an ambitious legally-binding agreement with stringent reductions in greenhouse gas emissions as essential to avoid disastrous consequences for the ocean and for coastal and island peoples. An important start was achieved with the landmark Paris Agreement. The Paris Agreement and the associated UNFCCC decisions offer significant opportunities for pursuing the policy recommendations and strategic actions detailed in this report. The Conclusion of this report elaborates on the progress made by the Paris Agreement and the opportunities for action that it created.

Box I.1 Organization of Oceans Day at COP 21

Main organizers: The Global Ocean Forum, IOC/UNESCO, UNEP, Sasakawa Peace Foundation, Japan, Ocean and Climate Platform, and the University of Delaware Gerard J. Mangone Center for Marine Policy

Co-organizers:

Governments of Grenada, Indonesia, Portugal, Seychelles, South Africa, and Sweden

Intergovernmental/International Organizations: GEF, CBD, FAO, GEF/UNDP/UNEP African Large Marine Ecosystems Project, the International Atomic Energy Agency, the Pacific Islands Forum, The Pacific Community, the Secretariat of the Pacific Regional Environmental Programme, the World Bank, the World Meteorological Organization

Non-governmental Organizations: the EUCC, Forum do Mar of Brazil, Global Island Partnership, the Institute for Sustainable Development and International Relations (IDDRI), the Institute Oceanographique of Monaco, IUCN, the Partnership for Climate, Fisheries, and Aquaculture, the Prince Albert II of Monaco Foundation, the Nature Conservancy, the World Ocean Network, the World Ocean Observatory, the WWF, the Deep-Ocean Stewardship Initiative (DOSI), and Nausicaa

Academic/Scientific/Public Outreach Institutions: Center for Coastal Studies of Massachusetts, Centre National de la Recherche Scientifique of France, Duke University's Nicholas Institute for Environmental Policy Solutions, the Global Change Institute of Queensland, the Instituto Politecnico Nacional of Mexico, Monmouth University, Oceanario de Lisboa, Scripps Institution of Oceanography, Plymouth Marine Laboratory, Turkish Marine Research Foundation, and Tara Expeditions.

Box I.2 Oceans Day at COP 21 Major Speakers

Governments: H.S.H Prince Albert II of Monaco, H.E. Mr. Tommy E. Remengasau, Jr. President of Palau, H.E. Minister Mme Ségolène Royal, Minister of Ecology, Sustainable Development and Energy, France, H.E. Mr. Ronald Jumeau, Ambassador for Climate Change and Small Island Developing States, Seychelles, H.E. Greg Hunt, Minister of the Environment, Australia, H.E. Mr. Manuel Pulgar-Vidal, Minister of State for Environment, Peru, H.E. Dr. Angus Friday, Ambassador to the United States, Grenada, Dr. Hans Hoogeveen, Vice-Minister for Agriculture The Netherlands, Mr. Luke Daunivalu, Fiji, H.E. Mr. Karmenu Vella, EU Commissioner, H.E. Minister John Pundari, Papua New Guinea, H.E. Dr. Lisa Svensson, Sweden, Ms. Catherine Novelli, US Department of State, H.E. Yuriko Koike, Japan, Sir David King, United Kingdom, Dr. Monde Mayekiso, South Africa, H.E. Mr. Heremoana Mamaatuaiahutapu, French Polynesia, H.E. Ms. Ambassador Ngedikes Olai Uludong, Palau; Mr. Samuel Kame Domguia, African Union, Dr. Ir. Achmad Poernomo, the Republic of Indonesia

Intergovernmental/International Organizations: Dr. Irina Bokova, United Nations Educational, Scientific and Cultural Organization, Ms. Naoko Ishii, Global Environment Facility, Mr. Michel Jarraud, World Meteorological Organization, Dr. Bráulio Ferreira de Souza Dias, Convention on Biological Diversity Secretariat, Dr. Vladimir Ryabinin, Intergovernmental Oceanographic Commission of UNESCO, Dr. Ibrahim Thiaw, United Nations Environment Programme, Dr. Helena Semedo, Food and Agriculture Organization of the United Nations, Ms. Paula Caballero, World Bank, Prof. Hans Pörtner, Intergovernmental Panel on Climate Change (IPCC), Dr. Edmund Hughes, International Maritime Organization (IMO), Dame Meg Taylor, Pacific Islands Forum Secretariat, and Pacific Ocean Commissioner, Dr. Raphaël Billé, Secretariat of the Pacific Community, Mr. Rawleston Moore, GEF, Dr. Hashali Hamukuaya, Benguela Current Commission, GEF/UNDP/UNEP African Large Marine Ecosystem Projects

Civil Society: Ms Mary Robinson, Mary Robinson Foundation–Climate Justice, Ms. Inger Andersen, IUCN, , Dr. Biliiana Cicin-Sain, Global Ocean Forum and Univ. of Delaware, Mr. Francis Vallat, European Network of Maritime Clusters, Ms. Maria Damanaki, The Nature Conservancy, Ms. Dorothee Herr, IUCN, Mr. Romain Troublé, Tara Expeditions and Ocean and Climate Platform, Mr. Hiroshi Terashima, Ocean Policy Research Institute, Sasakawa Peace Foundation, Japan, Mr. John Tanzer, WWF International, Ms. Catherine Chabaud, Innovation Bleues and Ocean and Climate Platform, Mr. Langston James “Kimo” Goree, Earth Negotiations Bulletin, Mr. Philippe Vallette, Nausicaá National Sea Center, France, and the World Ocean Network, José Soares dos Santos, Sociedade Francisco Manuel dos Santos, Portugal, Prof. Carol Turley, Plymouth Marine Laboratory, UK, Dr. Brian Murray, Environmental Economics Program, Duke University, Mr. Angus Garrett, Seafish, UK.

Other Related Efforts to Advance Oceans at COP21 the Ocean and Climate Platform

There were many efforts to raise the profile of ocean and climate at COP 21; two are highlighted here.

The Ocean and Climate Platform, a main co-organizer of the Oceans Day at COP 21, brings together over 70 organizations (especially non-governmental organizations and research institutes), to focus on oceans and climate interactions, bringing the perspectives of the scientific community and of the general public into the UNFCCC deliberations. At COP 21, the Platform organized the Forum on Oceans and Climate, focused on disseminating the results of scientific research and at mobilizing public interest in the oceans and climate issues, and relayed the results of the Forum to Oceans Day at COP 21.

The **“Because the Ocean” Declaration** was presented at a side event organized by the Chilean Foreign Affairs Ministry, the French Ministry of

Ecology, the Prince Albert II of Monaco Foundation, the Global Ocean Commission, the Institute on Sustainable Development and International Relations, and Tara Expeditions. It presented three objectives, which align closely with the recommendations in this action roadmap: work toward 1) a special report on the ocean by the Intergovernmental Panel on Climate Change (IPCC); 2) development of an ocean action plan under the UN Framework Convention on Climate Change (UNFCCC); and 3) the UN Ocean Sustainable Development Goal 14 Conference in June 2017, which is expected to establish a regular review of SDG 14 on oceans and marine resources.

An Agenda for Oceans and Climate 2016-2021

The major policy recommendations on oceans and climate emanating from the Oceans Day at COP 21 to pursue within and outside the UNFCCC in the next five years, in the context of the implementation of the Paris Agreement, are summarized in **Box I.3**. These

recommendations are discussed in detail in the following sections of this report.

Box I.3. Summary of Policy Recommendations on Oceans and Climate

1. Recognize the central role of oceans in climate and the need to implement stringent reductions in greenhouse gas emissions to avoid disastrous consequences on coastal and island communities, marine ecosystems, and ocean chemistry.

2. Mitigation

Further develop and apply mitigation measures using the oceans, such as implementing “Blue carbon” policies, reducing CO₂ emissions from ships, developing ocean-based renewable energy, and considering (long-term/no-harm) ocean-based carbon capture and storage.

Encourage all nations to reduce CO₂ emissions so that the Paris Agreement to limit emissions to well below 2°C can be achieved.

- Sustainably conserve and enhance coastal ecosystems as major carbon sinks and integrate the management of the coastal carbon ecosystems (“Blue Carbon”) into the policy and financing processes of the UNFCCC, and account for these ecosystems in the national reports to the UNFCCC, the INDCs (Intended Nationally Determined Contributions)
- Further accelerate progress in addressing air emissions from ships
- Sustainably develop ocean-based renewable energy (such as offshore wind power, wave energy, tidal power, and aquatic biofuels); and accelerate efforts to implement these approaches through integrated marine planning and enhanced regulatory frameworks
- Consider the potential for ocean-based carbon capture and storage, and, if appropriate, further develop regulatory systems for ocean-based sequestration and marine engineering

3. Adaptation

Implement ecosystem-based adaptation (EbA) strategies through integrated coastal and ocean management institutions at national, regional, and local levels to reduce vulnerability of coastal/ocean ecosystems and of human settlements, and to build the management capacity, preparedness, resilience, and adaptive capacities of coastal and island communities.

- Carry out adaptation measures through the integrated coastal and ocean management institutions created at national and local levels in all regions of the world since the 1992 Earth Summit, in close cooperation with disaster risk agencies and affected sectors and communities
- Apply ecosystem-based approaches to adaptation, especially regarding green infrastructure to provide natural system protection for defense against sea level rise, saltwater intrusion, storms, and flooding
- Establish and effectively manage coherent networks of marine protected areas in national and international waters to protect marine biodiversity and to enhance resilience of marine ecosystems to climate change, achieving the Convention on Biological Diversity’s Aichi Biodiversity Target of conserving at least 10% of marine and coastal areas by 2020
- Promote and apply Blue Economy approaches with emphasis on low-carbon solutions and economic benefits to developing countries and SIDS (following SDG target 14.7)

4. Displacement

Develop and support measures to address the issues associated with the displacement of coastal and island populations as a result of climate change, which will necessitate improvement of international law, in terms of clarity of definitions, rights, and procedures for climate-induced refugees and migrants, including the development and implementation of appropriate financing measures.

The International Organization for Migrants (IOM) projects 200 million people will be displaced by 2050 due to overall environmental changes; a proactive strategy must be taken to reduce humanitarian, financial and other losses.

5. Financing

Adaptation and mitigation efforts in coastal and SIDS countries/communities should receive sufficient funding, through: 1) directing a significant portion of the current climate funds to coastal and SIDS issues, and 2) developing supplementary financing to support adaptation and mitigation methods through innovative approaches and partnerships, entailing:

- Thorough examination of assessments of costs of adaptation, mitigation, and displacement
- Development of a financial tracking mechanism to report on financial flows to support climate change efforts related to oceans and coasts
- Earmarked funds in global public finance mechanisms to support adaptation and mitigation in coastal areas and SIDS
- Earmarked 10% of public and private investments in coastal infrastructure for coastal restoration

6. Capacity Development

Provide technical and financial assistance to SIDS, developing countries, and economies in transition to build capacity in the form of knowledge, tools, and scientific and political expertise to empower people to implement mitigation and adaptation measures, develop adaptive management capacity, early warning systems, and disaster risk reduction, and develop knowledge management mechanisms to share knowledge among all countries within and outside the UNFCCC frameworks.

- Promote the further enhancement of marine policy centers in developing countries and SIDS to build capacity in management and policy related to oceans and climate
- Strengthen the advancement of global marine observations, research, and related capacity development within the UNFCCC processes and beyond
- Support the preparation of the IPCC report on oceans and the cryosphere--to integrate and update the assessment of AR5 using scientific findings on the central role of oceans and climate and likely scenarios and consequences
- Include sustained ocean observation as part of national commitments, particularly within the framework of the UNFCCC and Agenda 2030/SDG 14 (target 14.a), in response to the call to increase knowledge to manage marine ecosystems sustainably, and understand the impacts of climate change and ocean acidification
- Enhance technical capacity development of vulnerable countries through the establishment of regional oceanographic centers to increase cooperation among States on ocean-climate research and multi-disciplinary observation (in accordance with SAMOA Pathway decision 58.f)
- Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels and the continued development of the Global Ocean Acidification Observing Network (SDG 14.3)
- Expand public outreach and education efforts, following the Lima Declaration on Education and Awareness-raising (COP 20, 2014), to enhance individual capacity and public understanding of the ocean's role in planetary survival and in global and national well-being, of the risks posed to SIDS and coastal communities by climate change, and to catalyse public support for mitigation and adaptation responses

The Landmark Paris Agreement Reached at COP 21

The Paris Climate Change Conference, bringing together the 21st session of the Conference of the Parties (COP 21) to the UN Framework Convention on Climate Change (UNFCCC) and the 11th session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 11) convened from 29 November to 13 December

2015, in Paris, France, and brought together over 36,000 participants, including nearly 23,100 government officials, 9,400 international organizations and civil society, and 3,700 members of the media.¹⁷

President Francois Hollande of France set the tone for the conference by noting that “We are in a fight for our lives.” At the outset, there was great skepticism that the consensus on the Paris

Agreement could be achieved. Deep divisions existed among nations especially around the following issues:

--the global target of keeping temperature rise to less than 2°C or 1.5°C (the 2°C target had been established in Copenhagen in 2009, but the 1.5°C goal had long been advocated by the 44 small island developing States, “1.5 to stay alive,” referring to the threats of sea level rise, increased floods and storms which could obliterate their homes and nations)

--the extent to which developing countries should have equal or differentiated responsibilities in responding to climate change

--the extent to which developed nations should provide financing for adaptation and mitigation, as well as for “loss and damage” incurred by developing nations and SIDS

--the extent to which there should be regular, monitored, and transparent reviews of countries’ climate pledges

Nonetheless, at the end of COP 21, the historic universal and legally-binding Paris Agreement was agreed to by 195 nations on December 12, 2015. Conclusion of the Paris Agreement represented a landmark achievement, marking a common political will to stem the rise of global warming and shift from fossil fuels and giving hope to the world that the disastrous consequences associated with climate change could be averted. Some of the concluding comments by delegations at the adoption of the agreement provide a flavor of the perceived significance of the adoption of the Agreement:¹⁸ “This is a transformational agreement, a triumph of multilateralism” (Morocco); “This marks a new path for our planet... we have reached an agreement that will help the world transition to a global low-carbon economy” (US); “We have reached a fair, flexible, and ambitious agreement that will lead to a carbon-neutral world” (Switzerland); “This is a marvelous action, balancing world interests with national interests” (China); “... the Agreement represents a new chapter of hope... as Ghandi had noted, ‘We should care for the world we will not see’” (India); “... for the first time, the interests of the small island developing States (SIDS) were taken into account... and the goal of 1.5 C will keep us alive...” (St. Lucia, on behalf of the Caribbean states).

Country delegates unanimously welcomed the leadership role of France in its management of the negotiations and the central role in building consensus of France’s Foreign Minister Laurent Fabius. As well, reportedly a pivotal role in the achieving of consensus was played by the “high ambition coalition”¹⁹ informally led by Tony de Brum, Foreign Minister of the Marshall Islands, one of the countries most affected by climate change, and including other SIDS countries, the EU, US, and other countries from Africa, Asia, Europe and Latin America.

Looking Ahead

The experts and stakeholders involved in the preparation of this Strategic Action Roadmap on Oceans and Climate and the Oceans Day at COP 21 have identified a set of important steps which could further ocean and climate issues in the next five years. The Paris Agreement offers a receptive environment for stakeholder initiatives; the Agreement “welcomes the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities.”

Next steps will begin with the partners involved in this effort and others to identify of what needs to be done on each major recommendation outlined in this Strategic Action Roadmap on Oceans and Climate within and outside of UNFCCC, with a 5-year time frame, and identifying priority actions for the first year. This Initiative will invite a High-Level Leaders Group to guide the effort, involving key actors in the UNFCCC process and other ocean leaders.

The Initiative will plan for a strong oceans presence at COP 22 in Marrakech, Morocco (November 7 to 18, 2016) working closely with the Government of Morocco and other organizers in the organization of the Oceans Action Day at COP 22, part of the UNFCCC Global Climate Action Agenda. At COP 22 and beyond, the Initiative will organize various meetings to create “alliances of the willing” to implement the recommendations contained in this report and to bring these results into the policy processes associated with the implementation of the Paris Agreement.

Initial implementation of items on the agenda on oceans and climate will be ongoing but must begin

as soon as possible. Some major opportunities for the first year are noted below.

1) *Comment on, help shape, and support the planned IPCC reports on oceans and the cryosphere and on the impacts of global warming of 1.5C above pre-industrial levels* (discussed in more detail in the Conclusion section).

2) *Review of the Intended Nationally Determined Contributions (INDCs) Submitted by Nations and Their Oceans-Related Content.* Review the INDCs submitted by SIDS nations and other nations that have included oceans and coasts in their INDCs to determine how these can be supported and realized, with the intention of developing a guide for nations on the inclusion and consideration of oceans and coasts in their national reports.

3) *Financial Tracking Mechanism.* Develop a Financial Tracking mechanism to examine and report on financial flows to support climate change responses in coastal and SIDS countries and communities. This work will place a special emphasis on Blue Economy approaches, especially by showing successful examples of Blue Economy strategies at COP 22. Given the estimated costs of SDG 14 and ocean adaptation to developing nations and SIDS, significant public and private capital will be needed over the coming decades.

4) *Capacity Development and Public and Decision-maker Awareness on Oceans and Climate.* Support capacity development among coastal and SIDS populations, bringing the ocean, coastal, and SIDS recommendations contained in this Strategic Action Roadmap on Oceans and Climate into the process of the newly established UNFCCC Committee on Capacity Building. As well, further work must be mobilized conveying information to the public and to decision-makers on the impacts of and responses to climate change impacts on coastal and SIDS nations around the world.

The Paris Agreement offers us hope for averting the worst impacts of climate change. It represents several landmarks steps in recognizing ocean and climate issues, particularly by acknowledging ocean ecosystems in its preamble and by marking the ambitious goal of limiting warming to 1.5C. The latter is especially significant to coastal and SIDS populations, for whom the goal of 2.0C is not sufficient to protect their survival, livelihoods, and

the health of the oceans on which their economies depend.

The High-Level Climate Champions, H.E. Dr. Hakima El Haité, Minister Delegate to the Minister of Energy, Mines, Water, and the Environment, Morocco, and H.E. Ambassador Laurence Tubiana, France, released their Road Map for Global Climate Action in June 2016 as a follow-up to the Paris Agreement. Echoing the sense of urgency that was pervasive at COP 21 and that drove the creation of the Paris Agreement, the Champions noted that “there is a need to quick-start implementation with a sense of urgency and ambition; create an interface with the real world and solutions, particularly the involvement of non-Party stakeholders; and maintain the political momentum.”

The emphasis on urgency and the participation of non-Party stakeholders, who have been active in representing ocean and climate issues, represents an important sea change in the international discussion around climate and ocean. We must take advantage of the momentum from Paris and influence every aspect of the implementation of the Paris Agreement in order to steadfastly advance the oceans and climate agenda within the UNFCCC and beyond.