Rio Ocean Declaration

Calling for strong and immediate action to meet the sustainable development goals for oceans, coasts, and small island developing States (SIDS) at Rio+20 and beyond

Co-Chairs' Statement of The Oceans Day at Rio+20
June 16, 2012
Rio Conventions Pavilion
United Nations Conference on Sustainable Development
Rio de Janeiro, Brazil

The Co-Chairs of The Oceans Day at Rio+20, a high-level ocean event at the Rio+20 Conference which gathered over 375 participants from 169 organizations and 46 countries, call for strong and immediate action on oceans, coasts, and small island developing States (SIDS), including:

- **Scaling up successful ecosystem-based management/integrated ocean and coastal management (EBM/IOCM) efforts** at national and regional and in marine areas beyond national jurisdiction.
- **Developing an integrated approach to addressing the interlinked issues of oceans, climate change, and security** that includes provisions for: Stringent reductions in greenhouse gas emissions; ecosystem-based adaptation strategies through integrated coastal and ocean management; sufficient funding to support adaptation for coastal and island communities that are at the frontline of climate change; conservation of coastal ecosystems as major carbon sinks; and moving towards a low-carbon economy through, inter alia, emissions reductions from marine industries and the development of offshore renewable energy.
- **Enhance the capability of small island developing States (SIDS) and developing coastal countries to benefit from, and sustainably manage, their marine resources and to adapt to climate change** through increased financing, technology transfer, commensurate with the needs and challenges facing developing countries and SIDS, and ocean use agreements to ensure that the benefits derived from the sustainable use of resources in the EEZs of SIDS and developing coastal countries accrue to them.

The Oceans Day at Rio+20 gathered over 375 ocean stakeholders from 46 countries and all sectors (governments, intergovernmental organizations and international agencies, non-governmental organizations, industry, and scientific institutions) at the UN Conference on Sustainable Development (Rio+20 Conference) in Rio de Janeiro, Brazil, on 16 June 2012 to highlight the importance of oceans, coasts, and small island developing States (SIDS) in sustainable development. The Oceans Day at Rio+20 also highlighted 12 tangible commitments for oceans, coasts, and SIDS.

The Co-Chairs of The Oceans Day at Rio+20 declare the following:

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. Ocean and coastal areas:

- Are the life support system of the Earth, producing half of the oxygen that we breathe, cycling over 93% of carbon dioxide in the atmosphere and storing over half of all naturally sequestered carbon, and absorbing 80% of the heat added to the global system in the last 200 years; and
- Provide critical social, economic, and nutritional benefits and underpin the global economy, including through providing an estimated 61% of the world's total Gross National Product (GNP), supporting 90% of global trade through shipping; and providing more than 4.2 billion people with more than 15% of the animal protein they consume through fisheries.

We, furthermore, note with great concern the many threats and negative drivers that are compromising the ability of the oceans to continue providing essential resources, food and nutritional security, and critically important services to the global community. These threats include the following:

- Growing threats from climate change, ocean acidification, pollution (including marine litter), overfishing, illegal, unregulated, and unreported

(IUU) fishing, destructive fishing practices, and habitat destruction and degradation; and

- Weak monitoring, control, enforcement and compliance; inadequate integration of the precautionary and ecosystem-based principles; and insufficient capacity to effectively manage ocean and coastal resources; low political prioritization of ocean and coastal issues; persistence of harmful subsidies leading to overexploitation; and inadequate public education and awareness.

We express our appreciation for the high level of attention given to oceans, coasts, and SIDS in the Rio+20 outcome document, and the recognition of their importance in achieving the three pillars of sustainable development, and the fact that much progress has been made in implementing integrated, ecosystem-based approaches to ocean and coastal management in the past 20 years.

We call for the world's leaders present at the Rio+20 Conference to agree to take immediate steps to achieve the sustainable development goals related to oceans, coasts, and SIDS through the following measures:

1. INTEGRATED OCEAN GOVERNANCE

Scale up successful ecosystem-based management/integrated ocean and coastal management (EBM/IOCM) efforts:

--*At national levels* to include the entire coast and ocean under national jurisdiction and through the strengthening of institutions and decision-making processes for integrated ocean and coastal management, including through the enactment of ocean and coastal laws;

--*At regional levels*, including through the Large Marine Ecosystem Programs and the Regional Seas Programmes, encouraging the adoption of regional protocols on EBM/IOCM to guide action at regional and national levels; and

--*In marine areas beyond national jurisdiction,* through organizations or processes with vested authority, to address multiple use conflicts, manage new uses, and protect vulnerable ecosystems and marine biodiversity.

2. CLIMATE AND OCEANS

Develop an integrated approach to addressing the interlinked issues of oceans, climate change, and security within and outside the UN Framework Convention on Climate Change (UNFCCC) that includes provisions for:

Mitigation

--Adopt stringent reductions in greenhouse gas emissions to avoid disastrous consequences on coastal communities, marine ecosystems, and ocean chemistry;

--Accelerate efforts to reduce emissions from marine industries, including efforts by the International Maritime Organization (IMO) and others;

--Conserve and sustainably manage coastal ecosystems as major carbon sinks ("Blue Carbon"), and integrate Blue Carbon into the policy and financing processes of the UNFCCC as a major tool for climate change mitigation;

--Sustainably develop ocean-based renewable energy (such as offshore wind power, wave energy, tidal power, etc.) guided, inter alia, by marine spatial planning;

--Consider and develop regulatory systems for carbon capture and storage.

Adaptation

--Implement ecosystem-based adaptation strategies through integrated coastal and ocean management institutions at national, regional, and local levels to reduce vulnerability and build the preparedness, resilience, and adaptive capacities of coastal communities. This includes coastal restoration and the establishment and effective management of networks of marine protected areas.

--Provide sufficient funding, supported by improved estimates of adaptation costs, to support adaptation for coastal and island communities that are at the frontline of climate change, including through the possible creation of a special Coastal Adaptation Fund; and

--Develop and support measures to address the issues associated with the displacement of coastal populations as a result of climate change.

Capacity Development, Scientific Monitoring, and Public Education

--Provide technical and financial assistance to SIDS and developing countries to build capacity to implement mitigation and adaptation measures, early warning systems, and disaster risk reduction;

--Establish the scientific capacity in all countries for marine environmental assessment, monitoring, and prediction, including the implementation of a global ocean acidification observing network as part of the global ocean observing system;

--Promote a science-policy mechanism at national and regional levels through the UN Regular Process for Global Reporting and Assessment of the State of the Marine Environment as a key mechanism to ensure that emerging issues are promptly reviewed and properly addressed in various decision-making and regulatory frameworks; and

--Expand public outreach and education efforts to improve awareness in general and particularly to improve awareness of the risks posed to SIDS and coastal communities, and to catalyze support for mitigation and adaptation responses.

3. PROTECTION OF MARINE BIODIVERSITY THROUGH NETWORKS OF MARINE PROTECTED AREAS (MPAs)

Undertake ecosystem-based approaches for ensuring the conservation and sustainable use of marine biodiversity in the context of integrated ocean governance, including through marine spatial planning and networks of marine protected areas, with a view to achieving the Convention on Biological Diversity's Aichi Biodiversity Target of conserving or managing at least 10% of marine and coastal areas by 2020.

4. ENHANCING FISHERIES FOR FOOD SECURITY, SOCIAL AND ECONOMIC BENEFITS

Prevent, deter, and eliminate IUU fishing, and eliminate environmentally and socially harmful fishing subsidies that contribute to overcapacity, overfishing and IUU fishing, reaffirming the commitments made in the Johannesburg Plan of Implementation.

Enhance the capacity of developing countries and SIDS to make optimal use of their fishery resources through enhanced fisheries management (e.g., adjusting fishing capacity and practices in a manner to avoid or eliminate overfishing, ceasing harmful harvesting methods, restoring depleted fish stocks) to increase the economic, social and nutritional benefits from their fisheries.

5. CAPACITY DEVELOPMENT: ENHANCE THE CAPACITY OF SIDS AND DEVELOPING COUNTRIES TO COMBAT CLIMATE CHANGE AND TO MANAGE THEIR MARINE RESOURCES

Enhance the capability of small island developing States (SIDS) and developing coastal countries to benefit from, and sustainably manage, their marine resources and adapt to climate through:

--Provide financial support to SIDS and developing coastal countries to improve their ability to adapt to climate change, supported by improved cost estimates;

--Increase the total amount of financing devoted to capacity development, commensurate with the needs and challenges facing developing countries and SIDS; and

--Ocean use agreements, including fisheries partnership agreements, in the Exclusive Economic Zones (EEZs) of SIDS and developing coastal countries that ensure social equity, resource conservation, and public transparency, and ensure that the benefits derived from the sustainable use of resources in the EEZs of SIDS and developing coastal countries accrue to them.

6. CONTROLLING ALL SOURCES MARINE POLLUTION

Mitigate marine pollution, including marine debris, persistent organic pollutants, heavy metals, and nitrogen-based compounds, from land-based and marine sources through:

--Supporting the implementation of the Global Program of Action for the Protection of the Marine Environment from Land-Based Activities (GPA), including though increased capacity development to implement national plans of action and regional Land-Based Sources Protocols;

--Developing regional programmes for marine litter and incorporating them into national budgets to support implementation and participation; and

--Developing and utilizing innovative economic incentives/measures (such as plastic bag taxes; extended producer responsibility; award-based incentives for coastal communities with integrated waste management systems; fines for illegal disposal of litter, and incentives to fishermen to remove marine litter) to prevent and reduce the release of plastics and other marine litter to the ocean and the abandonment and discarding of fishing gear at sea.

7. MOVE TOWARD THE BLUE ECONOMY

Take steps towards the Blue Economy to ensure that the use of marine resources contributes to income and jobs, reduced pollution and waste, social equity and inclusiveness, food and nutritional security, and poverty reduction through:

--Scaling-up successful blue economy initiatives (e.g., responsible coastal tourism practices, certification of sustainably caught seafood) and strengthening means of implementation through technology transfer, provision of financial resources, and sharing of best practices;

--Supporting the valuation and payments for ecosystem services for more effective decision making in development planning involving ocean resources;

--Supporting alternative livelihood development;

--Supporting research, development, and transfer of clean and renewable technologies, including offshore renewable energy.

LOOKING BEYOND RIO+20

We note that the institutional framework for sustainable development in the context of oceans and coasts has not been fully addressed in the Rio+20 process and that this is a major area in need of further attention and concrete action.

We recognize the need to make use of key opportunities for reassessment of the institutional framework for sustainable development for oceans in the next phase, including the 30th anniversary of the United Nations Convention on the Law of the Sea (UNCLOS), "the constitution for the world's oceans."

In the next phase, there is an urgent need to take concrete steps to:

--Re-assess the institutional framework for oceans and coasts at national and regional levels, as well as in marine areas beyond national jurisdiction, to improve the implementation of ecosystem-based, integrated ocean and coastal management, including through the potential adjusting or enhancing of the mandates of existing mechanisms, or the possible creation of new mechanisms for coordinated and coherent multiple use ocean governance;

--Elevate oceans to the highest levels of the UN system (UN Secretary General), to enable a cross-cutting approach, and appropriate and timely response to major threats and opportunities, including through the establishment of a high-level entity/coordination mechanism on oceans;

--Develop appropriate legal and policy frameworks based, inter alia, on the ecosystem and precautionary approaches for new and emerging issues, including carbon capture and storage, offshore aquaculture, deepwater offshore oil development, and bioprospecting for marine genetic resources.

Annex 1. Rio+20 Voluntary Commitments for Oceans, Coasts, and Small Island Developing States

Annex 2. Rio+20 Fact Sheet on Oceans, Coasts, and Small Island Developing States (SIDS) (Produced by the Global Ocean Forum)

Annex 1
Rio+20 Voluntary Commitments for Oceans, Coasts, and Small Island Developing States

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1. Global Partnership for Oceans
Lead Organization: World Bank, with 70 partner organizations

2. Ocean Watch: Assessment and Promotion of Progress in the Implementation of the 1992, 2002, and 2012 Global Commitments On Oceans, Coasts, and Small Island Developing States
Lead Organization: Global Ocean Forum (GOF)
Partners: United Nations Development Program, Intergovernmental Oceanographic Commission of UNESCO, Ocean Policy Research Foundation, Japan

3. The Sustainable Maritime Development Initiative by the IMO and the shipping industry
Lead Organization: International Maritime Organization

4. Building Oceans Readiness: Capacity Development for Integrated Ocean Governance
Lead Organization: Global Ocean Forum
Partners: Intergovernmental Oceanographic Commission, UNESCO, World Ocean Network, Ocean Policy Research Foundation, Japan

5. Building Global Capacity for Marine Sciences, Observation, and Transfer of Marine Technology
Lead Organization: Intergovernmental Oceanographic Commission of UNESCO
Partners: The Global Ocean Forum

6. Global Goal and Commitments to End Plastic Pollution
Lead Organization: Natural Resources Defense Council
Partners: Government at all levels, business, and non-governmental organizations are invited to join the current 32 signatories to this commitment.

7. Plastic Disclosure Project (PDP)
Lead Organization: Ocean Recovery Alliance
Partners: The Association for Sustainable & Responsible Investment in Asia, and partner investors and universities

8. The Marine Litter Initiative
Lead Organization: United Nations Environmental Programme
Partners: Regional Seas Programmes (RSP), United States National Oceanic and Atmospheric Administration

9. Global Sustainable Fisheries Management and Biodiversity Conservation in Areas Beyond National Jurisdiction
Lead Organizations: The Global Environmental Facility (GEF) and the United Nations Food and Agriculture Organization

10. The Ocean Stewardship Initiative in the Blue Society
Lead Organization: World Ocean Network
Partners: Nausicaà, Global Ocean Forum, Sea for Society Partnership**,** International Union for Conservation of Nature, Agence des Aires Marines Protégées

11. Mainstreaming Ocean Education
Lead Organization: World Ocean Network and the Ocean Policy Research Foundation

12. Smart Ocean/Smart Industries: Global scaling up of ocean and climate data collection by industry
Lead Organization: The World Ocean Council (WOC)
Partners: companies from a variety of sectors (e.g. shipping, oil and gas, fisheries, cruise ship tourism, and others) will collaborate to develop the system to foster, improve, and expand industry efforts to collect ocean and climate data.

Annex 2
Rio+20 Fact Sheet on Oceans, Coasts, and Small Island Developing States (SIDS)

Produced by the Global Ocean Forum

Why Are the Oceans Important?

The world's oceans and coasts provide a large number of essential resources and services upon which the global community depends for livelihood, sustenance, health, and cultural/spiritual value. The oceans are also a critical component of the essential life support systems of the Earth.

- The Earth is dominated by the oceans, which cover 72% of its surface area and accounts for 95% of its biosphere. To date, 95% of the oceans remains unexplored.
- Half of the oxygen we breathe comes from the ocean.
- Oceans are critical to the Earth's carbon cycle, cycling over 93% of carbon dioxide (Nellemann et al., 2009) and absorbing more than 26% of the carbon dioxide emitted to the atmosphere from human activities (IOC/UNESCO, IMO, FAO and UNDP 2011).
- The services provided by healthy marine ecosystems, including water filtration services, nutrient cycling, recreational areas for tourism, and supporting high biodiversity, are estimated to be worth approximately $250,000 billion per year (Nelleman et al., 2009).
- The oceans have absorbed 90% of the energy from the warming of the Earth in the last few decades (Turley et al., 2011).
- Over half of the world's population from 183 countries live in coastal areas including 13 of the world's 20 megacities (IOC/UNESCO, IMO, FAO and UNDP 2011).
- An estimated 61% of the world's total Gross National Product (GNP) comes from the ocean and coastal areas within 100 kilometers of the coastline (UNEP 2006).
- It is estimated that the fishing industry supports the livelihoods of 540 million people. Fisheries also provide 4.2 billion people with more than 15% of the animal protein they consume (FAO 2010)
- Coral reefs have been estimated to provide $30 billion in annual net benefits in goods and services to the world economy in the form of tourism, fisheries, and coastal protection (Cesar et al., 2003).
- As many as half a billion people are thought to depend economically on coral reefs in some way. One-eighth of the world's population, roughly 850 million people, live within 100 km of a coral reef and are likely to derive some benefits from coral reef ecosystems (Beaudoin and Pendelton 2012).
- Roughly 30 million people in coastal and island communities are totally reliant on coral reef resources as their primary means of food production, income and livelihood (TEEB 2010).
- The value of coral reefs to humankind is between US$130,000 and $1.2 million per hectare, per year, including food and material resources, climate regulation, storm protection, water treatment, services, and tourism (TEEB 2010).
- The international shipping sector transports 90% of global trade, making it a cornerstone of sustainable development (IOC/UNESCO, IMO, FAO, UNDP 2011).
- Approximately one-third of worldwide crude oil is located offshore and the percentage of offshore oil production is expected to rise in the next decade (IOC/UNESCO, IMO, FAO, UNDP 2011)

What Are the Threats?

The impacts of a number of key drivers are compromising the ability of the oceans to continue providing essential resources and services, exacerbating existing challenges to sustainable development and endangering the welfare of 183 coastal countries. The magnitude of the cumulative impacts on the ocean is greater than previously understood and is drastically compromising the health and resilience of marine ecosystems.

- Based on current emissions reduction pledges by countries, it is expected that global emissions will be 20% above the current level in 2020, and that warming will exceed 3ºC by 2100, threatening the survival and well-being of SIDS and coastal communities in developing countries (Cicin-Sain et al., 2011).
- The oceans are becoming increasingly acidic, due to absorption of carbon dioxide from the atmosphere, at a dramatic rate that is estimated to be 10 times faster than has been experienced in the last 65 million years (Noone et al., eds. 2012).
- Recent studies conclude that a mean sea-level rise of 0.5m-0.8m over 1990 levels by 2100 is likely and that a rise of more than one meter in that time is possible (Pfeffer et al., 2008, Richardson et al., 2009).
- The UNFCCC has estimated the cost of adapting the coastal zone to climate change at roughly $11 billion per year, however, this estimate uses lower predictions of sea level rise and does not include potential impacts from increased storm intensity (IPCC 2007, Parry et al. 2009).
- Extreme events such as hurricanes and floods, which can cause damage in excess of 20% of GDP in many Small Island Developing States, are predicted to increase in frequency and intensity due to climate change (Payet 2008).
- The impacts of climate change on oceans by 2100, including sea level rise, storms, and impacts fisheries, are expected to cost between $600 million and $2 trillion (Noone et al., eds. 2012).
- 85% of the world's fisheries are fully exploited, overexploited, depleted or recovering from depletion, the highest percent reported by the FAO (FAO 2010).
- The global fishing fleet is now thought to be two to three times greater than the oceans can sustainably support (Pew Environment Group 2011).
- The worldwide value of catch from illegal, unregulated, and unreported (IUU) fishing has been estimated to double since 2004 (Pew Environmental Group 2011), resulting in losses of between 10 and 23 billion dollars per year (Agnew 2009, Flothman et al., 2010).
- Overfishing has resulted in lost benefits to fishing nations of roughly $50 billion per year (World Bank and FAO 2009).
- Invasive species, one of the most significant causes of biodiversity loss, have been reported in 80% of the world's 232 marine ecoregions (IOC/UNESCO, IMO, FAO, UNDP 2011).
- Despite some progress in economic development of SIDS, at least 20% of these states are still categorized as Least Developed Countries (LDCs) (Cicin-Sain et al., 2011).
- Coastal ecosystems are capable of storing carbon at rates as much as five times higher than tropical forests, and are being lost four times faster than rainforests (Nellemann et al., 2009). At the current rate, most coastal carbon sinks will be lost in the next two decades.
    - 35% of mangrove forests have been lost since 1980, with an additional 2% lost each year (Valiela et al., 2009).
    - An estimated 30% of global seagrass beds have been lost (Waycott 2009).
    - 34% of the world's reefs have already been destroyed or are in imminent danger of collapse, (Huhes 2009) and an additional 20% are under threat of loss in 20-40 years (Wilkinson 2008).
- The number of hypoxic dead zones has increased dramatically in the last 4 decades, increasing 10 fold between 1969 and 2010. This rate of increase is highest in the developing world (Diaz and Rosenberg 2008).
- It is estimated that there are 46,000 pieces of plastic litter on every square mile of the ocean's surface (UNEP and IUCN 2006).
- 80% of the pollution in the oceans comes from land-based sources (Diaz and Rosenberg 2008).

There Are Some Bright Spots

Despite the many threats facing the world's oceans and coasts, there are a number of bright spots and examples of progress that should be supported, scaled-up, and looked to for best practices and lessons learned.

- The total ocean area protected by marine protected areas (MPAs) has increased over 150% since 2003. As of 2010, approximately 5,800 MPAs had been established globally, covering over 4.7 million km^2 or 1.13% of the total marine area (Toropova et al., 2010).
- Recently, the establishment of spatially extensive MPAs, such as the Phoenix Islands Protected Area, in Kiribati, the Papahānaumokuākea Marine National Monument in the Northwestern Hawaiian Islands (US), and the Chagos Islands MPA (set up by the UK government), have greatly increased the areal extent of protected areas in the ocean (Vierros et al., 2011).
- Over 100 countries have established integrated coastal management programs (some of these need to be scaled up to encompass a nation's entire coastal zone) (Murawski et al., 2008).
- About 40 countries are developing or are implementing integrated national ocean policies covering their 200-mile exclusive economic zones (EEZs) (Murawski et al., 2008).
- Regional approaches to ecosystem-based, integrated coastal and ocean management (EBM/ICM) have been successfully developed and implemented, especially in the 20 Large Marine Ecosystem Programmes supported by the Global Environment Facility and implemented by 110 countries around the world, and in the 18 Regional Seas Programmes.
- Among the SIDS, there was an increase from 61% in 2006 to 76% in 2010 in the development of national disaster preparation and response plans, 61% of SIDS had a national office or agency dedicated to addressing disaster issues, and approximately 68% of SIDS had produced or had initiated the process of producing a national adaptation plan as of 2010 (Cicin-Sain et al. 2011).
- It is estimated that about 40 countries have taken concrete steps toward cross-cutting and integrated national ocean policy (Cicin-Sain, Balgos, and VanderZwaag 2012)

…And Emerging Opportunities

As well, there are a number of new and emerging opportunities for sustainable utilization of ocean resources in contributing to meeting the social and economic demands of the global community.

- Offshore renewable energy is a rapidly growing sector. Offshore wind capacity alone is expected to increase 4 fold in the next 2 years, and over 20 fold by 2020 (IOC/UNESCO, IMO, FAO, UNDP 2011).
- There is growing interest in exploiting wave energy. The global wave energy resource is estimated to be around 8,000-80,000 TWh/yr (1-10TW), which is the same order of magnitude as world electrical energy consumption (RenewableUK 2010).
- A 2010 study estimated that there are between 250,000 and 600,000 chemicals in the marine environment, approximately 92% of which remained undiscovered, that could yield up to 214 new anti-cancer drugs, worth anywhere from US $563 billion to US $5.69 trillion (Erwin et al 2010).
- Partnerships with the private sector are emerging as a relevant way to collect data for more inclusive ocean observation and research, as industry is a primary user of the ocean.

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