



MESSAGE FROM THE PGA



H.E. Mr. Peter Thomson,
President of the 71st session
of the UN General Assembly

The life-threatening decline in the health of the Ocean convinced the Member States of the United Nations to include an Ocean's goal (SDG14) in

the 2030 Agenda for Sustainable Development. For the first time, a universally adopted Sustainable Development Goal came into being to address the woes humanity had put upon the Ocean. The list of woes is long, including a plague of marine pollution, steadily depleting fish-stocks, degraded and destroyed coastal, coral reef and marine ecosystems, inadequate governance of the high seas, and the acidifying, warming and deoxygenizing of the Ocean. The list goes on.

The universal adoption of SDG14 committed us all to the conservation and sustainable management of the Ocean's resources. This was a moment of honesty. It was an admission by humanity that we were harming the Ocean and that we had a common responsibility to commence remedial action.

But how to do so? How to reverse the cycle of decline that our actions had cumulatively put upon the Ocean? How to ensure that SDG14 was not just a beautiful collection of words?

The answer did not lie in reliance on the status quo, for the status quo had presided over the Ocean's decline. The answer demanded scientific truth-telling, laying bare the extent of the problems and producing the best solutions to comprehensively meet the targets of SDG14.

The answer lay in convening all of humanity who felt committed to making SDG14 succeed, into a real moment of responsibility, so that the truth and the solutions could be shared and acted upon.

This meant opening the doors of cooperation to humanity as a whole, to the private sector, the fisheries and shipping industries, the

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The best available science: Marine reserves are climate reserves

Drs. Callum Roberts and Beth O'Leary,
Environment Department, University of York, UK

It is hard not to be at least a little pessimistic about the future. Regardless of what cuts in greenhouse gas emissions we make today, the global temperature will rise at least another half a degree centigrade, and sea levels will rise a couple of metres or more over the next 200 years. Ocean acidification, from dissolved carbon dioxide emissions, is changing ocean chemistry in ways that will strain the ability of creatures to grow chalky shells and skeletons for thousands of years to come.

Surface waters of the oceans have warmed by nearly one degree centigrade since pre-industrial times and there is more to come. Warming is reducing ocean productivity. It slows mixing between a warm surface layer of water and colder water below, starving the surface layer of nutrients necessary for plant growth, and deeper waters of life-sustaining oxygen. Warming is leading to a global diaspora of fish and other marine life as they colonise newly favourable regions and abandon those where conditions have soured. Taken together, these effects will likely lead to lower fish catches, especially for countries in tropical and warm-temperate regions. As if this were not enough, rising seas also imperil some of the world's most densely populated lands, and most productive agricultural regions, around low-lying river deltas. Increasing human needs will soon collide with falling supplies.

It is easy to feel powerless and despondent in the face of such threats, particularly knowing the political roadblocks that need to be cleared for effective action to reduce greenhouse gas emissions.

But there is something that we can do to steer a safer course into the future while politicians and diplomats battle. History holds the key.

Over the last two hundred years, industrial fishing has spread across the global ocean, reaching its remotest corners and to thousands of metres deep. The story of fishing has been repeat-

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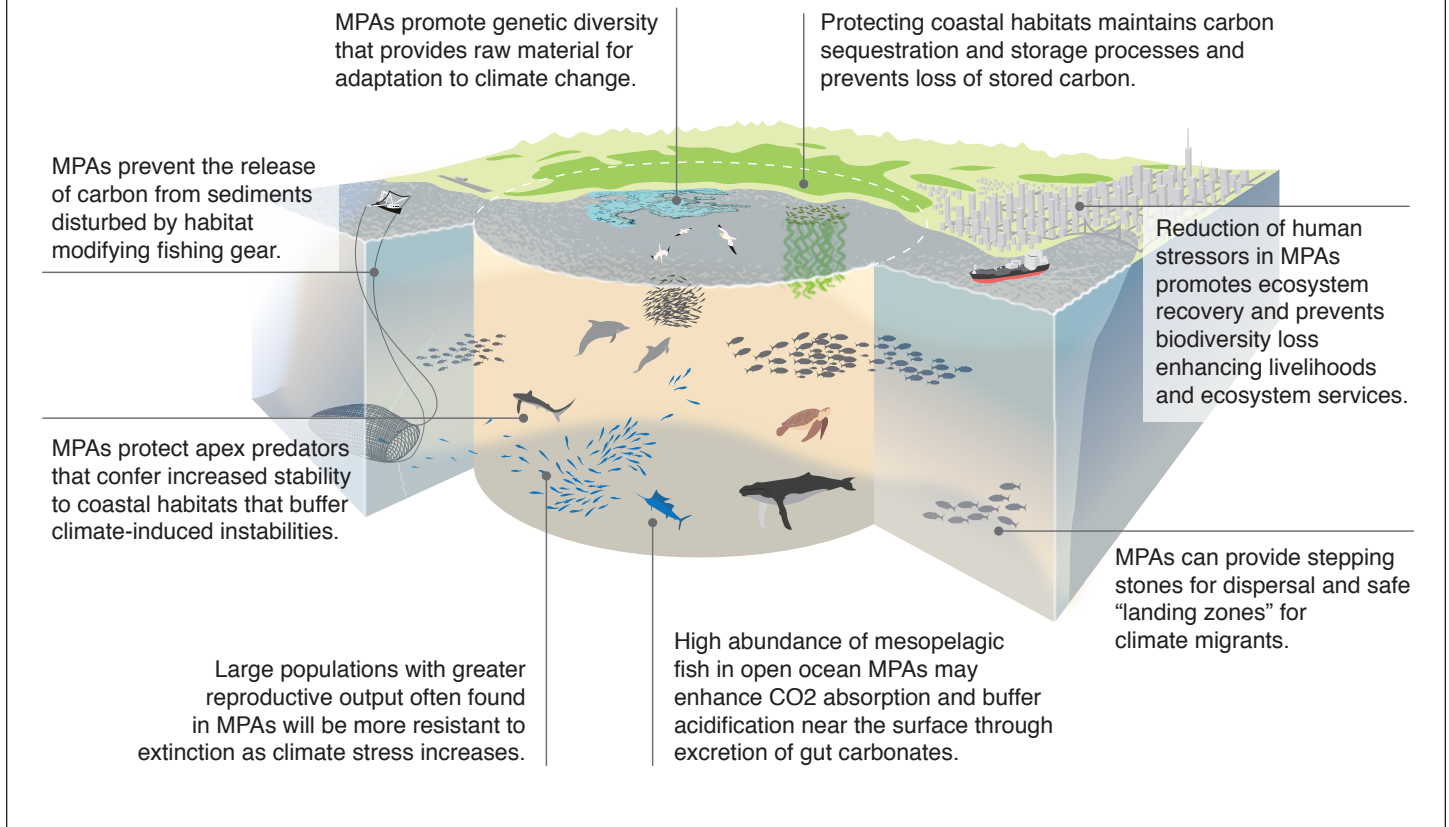


Dr. Callum Roberts



Dr. Beth O'Leary

Marine Protected Areas | Help the oceans to mitigate and adapt to climate change by promoting intact and complex ecosystems with high diversity and abundance of species.



MARINE RESERVES Cont.

ed all over: large, high value and easy to catch animals are targeted first. As they are depleted, fishing switches to other species, pursued using progressively more active, intensive and destructive fishing methods.

In places exploited for long periods ecosystems have been stripped of larger predators, species like sharks, billfish, cod and halibut, leaving behind smaller, more resilient creatures like prawns and crabs. Many species have declined more than 90% in abundance, rendering fisheries for them far less productive. Furthermore, in the process of switching from hook-and-line and net, to trawl and dredge, complex and highly diverse seabed habitats built by shellfish, seaweeds and corals were converted to rubble, sand and mud.

It is clear from these trends that we

have already lost a great deal of fisheries productivity through mismanagement. The scale of these losses eclipses the likely downturn from future climate change stress. This means that by reversing the declines, which we can do by protecting places in marine reserves and better managing exploitation outside them, will go a long way to mitigating climate change impacts (Roberts et al. 2017).

Marine reserves are places that are protected from all fishing. Within them, species increase in abundance and size. Big animals produce many more offspring than small animals – they are the engines of reproduction and replenishment. Their offspring drift as eggs and larvae on ocean currents, spreading 10s or even 100+ kilometres to reseed surrounding fishing grounds. As

protected populations grow, animals seek less crowded conditions elsewhere, spilling over into unprotected areas where they can be caught. Spared the destructive effects of industrial fishing gears and other damaging human impacts, marine reserves promote habitat recovery, which leads to higher productivity and greater population sizes.

It is through these processes of increased reproduction, habitat recovery, export of offspring and spillover – the reversal of historical declines – that marine reserves can mitigate some of the impacts of climate change. And through a quirk of physiology – fish produce highly soluble carbonate granules in their guts – more abundant fish may also help buffer rising ocean acidity in shallow seas.

There is more. Recent research is revealing the enormous value of intact coastal

wetlands like mangrove forests, salt marshes and seagrass beds. Long-maligned as fly infested swamps, they have often been valued only as places to clear or develop. There has been massive loss of these coastal wetlands in the last hundred years, especially in Asia and Central and South America where thousands of square kilometres have

A monumental environmental upheaval is underway

been converted to aquaculture ponds and other uses. Globally, approximately one third of mangroves have been lost in the last 50 years, and about 30% of seagrass beds since the late 19th century. The Philippines has lost 80% of its mangroves.

Healthy wetlands, it turns out, are vigorous carbon sinks, taking up atmospheric carbon dioxide and storing it in deep, muddy sediments. They can grow upward as sea levels rise, helping protect vulnerable low-lying coasts. This function may be particularly important as a warmer world is expected to experience more extreme weather. Protection and restoration of coastal wetlands in marine reserves should help mitigate climate change and help local communities adapt to its effects.

It is apparent that a monumental environmental upheaval is underway as we enter the Anthropocene. Marine reserves will not halt climate change nor prevent harm from transboundary threats such as pollution. They must be established alongside other solutions, like restrictions on fishing effort and methods, and better management of runoff from land. While reserves have many benefits at

local scales, they must also be scaled up to make a meaningful contribution to offsetting climate change impacts at a global level. The Sustainable Development Goal target of 10% protection by 2020, while ambitious in timing, is only a waypoint, not the endpoint, on the road to effective ocean management. Scientific research argues in favour of a much higher target (O'Leary et al. 2016), with figures of 30% by 2030, or even 50% by 2050, justified by the evidence. We must therefore also extend protection to areas beyond national jurisdiction, which comes with its own difficulties.

Marine reserves are not a panacea nor are they a substitute for urgent reductions in greenhouse gas emissions. They have limitations that must be addressed through further research and creativity, such as how to better resource them, improve monitoring, surveillance and enforcement, and achieve better social outcomes. Nor can they adequately protect all ecosystems, some of which appear to be much more sensitive than others. But given their broad portfolio of positive outcomes, it is hard to conceive of any circumstances under which extensive networks of well-resourced and managed, highly protected marine reserves would not increase future human wellbeing. They represent a positive, proactive step that local communities, regions, nations and the international community can pursue to build resilience and soften the blows that lie ahead. ■

EDITOR'S NOTE: This article summarizes research that is being published on June 5, 2017 in the Proceedings of the National Academy of Sciences. It represents the most recent science-based thinking on the value of Marine Protected areas.

Palau's Commitment for the Oceans

H.E. Ms. Ngedikes "Olai" Uludong, Permanent Representative of Palau to the United Nations and Ambassador to the European Union



There are exciting new opportunities to accelerate economic and social progress on Small Island Developing States (SIDS). It is time for our Pacific nations to seize them. Often referred to as "Large Ocean States," we are stewards of one of the greatest natural treasures in the world – the Pacific Ocean – and we take that responsibility seriously.

My country's contribution to the achievement of SDG14 is the Palau National Marine Sanctuary, which covers our entire Exclusive Economic Zone. An ambitious 80 percent is designated as a no-take zone, with the remaining 20 percent reserved strictly for domestic needs. Palau has taken this extraordinary step not only for environmental reasons, but through the benefits to our ocean biodiversity – the spill over benefits for regional fish stocks – will be significant. The Sanctuary was also driven by some very hard-nosed economic concerns.

As President Tommy E. Remengesau Jr., likes to say, "The environment is our economy, our economy is our environment." It is no coincidence that Palau is one of the most popular destinations for scuba divers and eco-tourists.

All SIDS share a common priority – to eliminate illegal, unreported, and unregulated fishing – the biggest immediate threat to our Sanctuary, which amounts to nothing less than theft of some of the Pacific Ocean's most precious resources. This form of piracy in the Pacific tuna fishery has been estimated to steal between \$500 million and \$750 million every year.

We can make significant progress at the Ocean Conference to address IUU fishing. Like many of Pacific SIDS,

Palau relies on a small group of officers and even fewer boats to monitor our waters,

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ACKNOWLEDGEMENTS: BETH O'LEARY IS SUPPORTED BY THE PEW CHARITABLE TRUSTS.

LITERATURE CITED: ROBERTS, C.M., B.C. O'LEARY, D.J. MCCAULEY, P.M. CURY, C.M. DUARTE, J. LUBCHENCO, D. PAULY, A. SAENZ- ARROYO, U.R. SUMAILA, R.W. WILSON, B. WORM AND J.C. CASTILLA (2017) MARINE RESERVES CAN MITIGATE AND PROMOTE ADAPTATION TO CLIMATE CHANGE. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. www.pnas.org/cgi/doi/10.1073/pnas.1701262114 O'LEARY, B.C., M. WINTHER-JANSON, J.M. BAINBRIDGE, J. AITKEN, J.P. HAWKINS AND C.M. ROBERTS (2016) EFFECTIVE COVERAGE TARGETS FOR OCEAN PROTECTION. CONSERVATION LETTERS. doi: 0.1111/conl.12247

Scorecard: Progress towards 10%

Mr. Lance Morgan,
President,
Marine Conservation
Institute



2016 was an exciting year for ocean protection. More progress was made towards establishing marine protected areas (MPAs) last year than any previous year, and nations are now protecting or committed to protecting almost 11,000,000 sq. km. of the global ocean (just over 6.5%). Tracking the progress of nations from commitment to designation to “on-the-water” implementation is often challenging. Designation processes can often take years once a government has made the decision to establish a marine

protected area. **MPAtlas.org** attempts to follow these processes from the announced commitment through to the final designation with regulations.

Our current accounting of marine protected area commitments that are officially proposed by governments and are undergoing designation equates to 3.5% of the ocean. Just a few of the recent commitments are Kermadec Ocean Sanctuary (New Zealand), Marae Moana (Cook Islands), Easter Island Marine Park (Chile), Ascension Island Ocean Sanctuary (U.K.), Terres Australes Francais Nature Reserve (France), Pacifico Mexicano Profundo (Mexico) and the Ross Sea Marine Protected Areas, among many others. These areas represent official MPA proposals and

do not include more general commitments to the Sustainable Development Goal 14 target of 10% by 2020.

There is significant energy and enthusiasm by many countries to reach these targets, but there are also questions that we need to be concerned with as we examine the rush to meet the SDG target. Are MPAs representative of the range of species and habitats in a country? Are areas being effectively managed? Are regulations effective at maintaining and recovering marine life? Although progress is uneven across different nations and regional geographies, there is a great deal to be hopeful about. More information on specific countries progress can be found at **MPAtlas.org**. ■

THE GOLDEN THREAD A recent tally shows that 14,688 MPAs exist in 178 countries

H.E. Dr. Elliston Rahming,
Permanent Representative
of the Commonwealth of
the Bahamas, and
Vice-chairman of the
10x20 Steering Committee



Virtually every country with a marine coastline has declared one or more marine protected areas. States that disagree with each other on a whole range of issues find common ground in that they have recognized the value of protecting the ocean by establishing marine sanctuaries.

A recent tally shows that 14,688 MPAs exist in 178 countries.

This is the golden thread that binds the Ocean Sanctuary Alliance.

WHY FOCUS ON SANCTUARIES?

The Ocean Sanctuary Alliance (OSA) believes the establishment of “no-take” protected areas where commercial fishing cannot occur is the single most important of all the targets included within SDG 14. This must be considered against the background that the current situation of fish stock depletion is deteriorating rapidly. Many commercial fisheries are quickly approaching collapse. It is possible to save them if action is taken within the next five years.

After that, even though many fish stocks will be on the way to recovery, some will have been lost forever.

The only numerical goal in SDG 14, and possibly in all the SDGs, is Target 5: By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on best available scientific information. The establishment of sanctuaries therefore can be measured precisely at any given point. The member-states will know if that goal has been achieved, or will know what still must be done to achieve it. This alone makes the sanctuary goal stand out among the other objectives of SDG 14.

Most important, we believe the establishment of sanctuaries can be accomplished more quickly than any of the other actions contemplated by SDG 14. It takes the

political will or decision of each member-state to establish the boundaries of protected areas. While the political process required to take such decisions varies among member-states, all have the capacity to take swift action in the face of an urgent need. Once the decision is taken, the protected area can come immediately into existence and its boundaries are known to all.

SANCTUARIES

- Are proven to regenerate marine ecosystems
- Can be easily measured (in square km.)
- Can be implemented unilaterally by member states
- Can be implemented quickly
- Can have immediate results (depending on fish/fisher) ■

**SUSTAINABLE DEVELOPMENT GOAL 14:
Conserve and sustainably use the oceans, seas and marine resources.**

**THE ONLY MEASURABLE GOAL IN SDG14:
Target 5: By 2020, conserve at least 10% of coastal and marines areas, consistent with national and international law, and based on the best available scientific information.**

MESSAGE FROM THE PGA

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scientific community, non-governmental resources, civil society, philanthropies, and of course the public sector of governments, multilateral agencies and programs, and us here at the United Nations.

Thus it was that The Ocean Conference was mandated by the General Assembly last year, to support the noble aims of SDG14. For the week of 5th to 9th June, the United Nations campus will be home to what may prove to be the most important gathering ever held in support of Ocean's well-being.

We are part of a forward-looking process, a determined march towards achievement of SDG14 by the mandated year of 2030. In resolutely pursuing this process we carry a promise to our children and grandchildren to restore Ocean's health, so that we do not continue to steal from their future.

I salute all of the member states that are participating in the 10x20 Initiative. This partnership's purpose is to promote the successful implementation and achievement of Target 5 of SDG14: by 2020 conserve at least 10 percent of coastal and marine seas, consistent with national and international law and based upon the best available scientific information. The 10 x 20 Initiative is a major step towards ensuring progress on this important global target.

I also want to take this opportunity thank our partners and stakeholders for making hundreds of the voluntary commitments on the oceanconference.un.org website. They send a powerful message of communal engagement.

We who wish to see humanity's respect for the Ocean resurrected, for natural balance to be restored, for the joy and bounty of the Ocean to live on – we are all set sail on a grand endeavor. And our fleet will not be sunk, nor will it be diverted; we will reach that harbor of restored respect. And we will be driven there by honesty of effort, in fulfillment of SDG14, our universally agreed undertaking to conserve and sustainably manage the resources of the Ocean. ■



PALAU'S COMMITMENT

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supplemented by Australia and United States assistance. One long-range and two short-range vessels are responsible for patrolling approximately 650 square kilometers of ocean. The high cost of fuel also limits the time these boats can spend at sea. What do we need? More patrol vessels, more funding, more operational capacity, and more intelligence on ocean traffic. Palau is grateful for the partnerships of the governments of Monaco, Italy, Japan, Republic of China-Taiwan, Australia, United States and many others to include private foundation partnerships such as with the Nippon Foundation/Sasakawa Peace Foundation, which is helping us develop and implement a monitoring and enforcement plan. Other countries and organizations are stepping up as well.

The waters of the Pacific are vast. Like climate change and so many other global problems that we face today, IUU fishing demands a global response. At the UN Ocean Conference, the world can make a strong commitment to end IUU fishing as a key step toward our achievement of SDG14. ■

The Ocean Sanctuary Alliance (OSA) is a partnership of UN Member States and leaders from across disciplines. Our mission is to restore and sustain the world's ocean by securing national commitments to establish science-based marine sanctuaries.

BOARD OF DIRECTORS

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Mr. Mark Newhouse, President, OSA

Dr. Amir Dossal, President, Global Partnerships Forum

Mr. Craig Powell, Commonwealth of Bahamas

Ms. Rosalind Walrath, Secretary and Treasurer, OSA

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International Youth Photo Contest, "I Live by the Sea"

H.E. Mr. Boguslaw Winid,
Permanent Representative of the
Republic of Poland, and
Vice-chairman of the
10x20 Steering committee



In October 2016 the Permanent Mission of Poland to the UN together with the Polish NGO Today We Have, Ocean Sanctuary Alliance, Institute of the Oceanology of the Polish Academy of Science and Sopot Science Association announced and organised an International Youth Photo Contest 'I live by the sea'.

The main objective of the Contest, directed to young people from all over the world, was to use the visual arts in promotion of the seas, oceans and marine environment. In this way we highlighted the importance of the Sustainable Development Goal no. 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development).

The Contest organisers have received 136 photo works by young people of all ages from 12 countries. Many of works have been taken in a very professional manner with a deep sense of responsibility for the future and protection of our oceans and seas.

I am very pleased to inform you that the panel international judges (Professor Colin Campbell from the University of Reading, Professor Dennis Chamberlin from the Iowa State University and Professor Tymon Zielinski from the Institute of Oceanology of the Polish Academy of Science) has selected

30 winning photos by young photographers from 7 countries - diversified culturally and geographically: Kazakhstan, Philippines, Poland, Republic of Mauritius, Romania, Trinidad and Tobago and USA.

The 30 winning works will be presented at the special exhibition which opens June 6th 2017 at 6 PM.

The exhibition is at the United Nations Headquarters: (1B Corridor area, first basement area of the UN Secretariat near conference rooms E,11&12)

All submitted photos will be also available on the contest website:

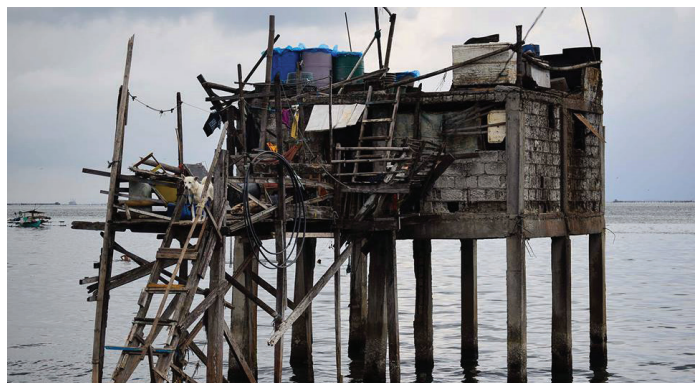
<http://www.todaywehave.com> ■



PAULINA ANAMARIA, ROMANIA



ULYANA PYRLIK, KAZAHZTAN



QUEENIE ANN D. DUHAN, PHILIPPINES



CASIMIR AMELIA, GUILLAUME LORENA,
RODRIGUES ISLAND, MAURITIUS



JHAMIL B. AYNERA, PHILIPPINES



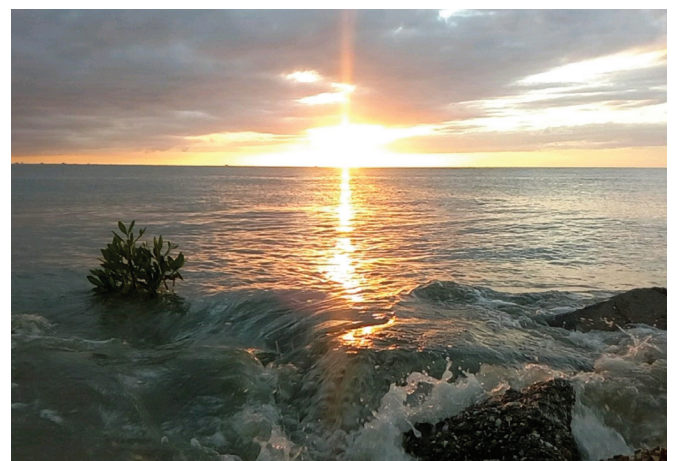
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RODRIGUES ISLAND, MAURITIUS



MEXICA M. BAUSA, PHILIPPINES



DEVIEEN BEDASIE, TRINIDAD AND TOBAGO



THE
OCEAN
CONFERENCE
UNITED NATIONS, NEW YORK, 5-9 JUNE 2017

Can't-miss events during Ocean Conference week

TUESDAY JUNE 6

10 AM – 1 PM Conference Room 4, UNHQ

PARTNERSHIP DIALOGUE 2 -

Managing, protecting, conserving and restoring marine and coastal ecosystems
Hosted by the Republic of Italy and the Republic of Palau.

6:00 PM - Opening of the photo exhibition "I LIVE BY THE SEA" United Nations Headquarters

(1B Corridor area, first basement area of the UN Secretariat near Vienna Café and conference rooms E,11&12).
The exhibition is organized by the Polish Mission to the UN to present the winning works by young photographers from around the world with the aim to promote the Sustainable Development Goal no. 14 (protection of oceans and seas and marine environment).

6:15 PM Sputnik Lounge, UNHQ

SIU MOANA – REACHING ACROSS THE OCEAN

Voices from across the Pacific will open the reception as together we celebrate the natural and cultural connections that define our ocean. Elders representing the Polynesian Triangle—Maori, Rapa Nui, and Hawaiian— will open the reception as together we celebrate the natural and cultural connections that define our ocean.

Speakers will include:

H.E. Mr. Peter Thomson, President of the United Nations General Assembly

H.E. Mr. Heraldo Muñoz, Minister of Foreign Affairs of Chile

H.E. Mr. Marcelo Mena, Minister of Environment of Chile

Dr. Ellen Pikitch, Ocean Sanctuary Alliance

Mr. Tom Dillon, The Pew Charitable Trusts

THURSDAY JUNE 8

3 PM - 5 PM Conference room 11, UNHQ

MEETING OF THE 10X20 STEERING COMMITTEE

Hosted by the Government of Italy, the Republic of Kenya, the Republic of Palau, the Republic of Poland, the Commonwealth of the Bahamas, Ocean Sanctuary Alliance, and the Pew Ocean Legacy program. The Steering Committee is open to any and all Member States who support the achievement of Target 5. We will hear from member-states about their plans and their achievements in creating ocean sanctuaries. Speakers will describe efforts in the Bahamas, Indonesia, Palau, and South Africa, and we will also hear from funders about support for these efforts.



H.E. Mr. Sebastiano Cardi,
Permanent
Representative of Italy
Chairman of the 10x20
Steering Committee