



THE 10X20 INITIATIVE

Conference on
Marine Protected Areas: An Urgent Imperative
A Dialogue Between Scientists and Policymakers
Rome, Italy
March 7-9, 2016

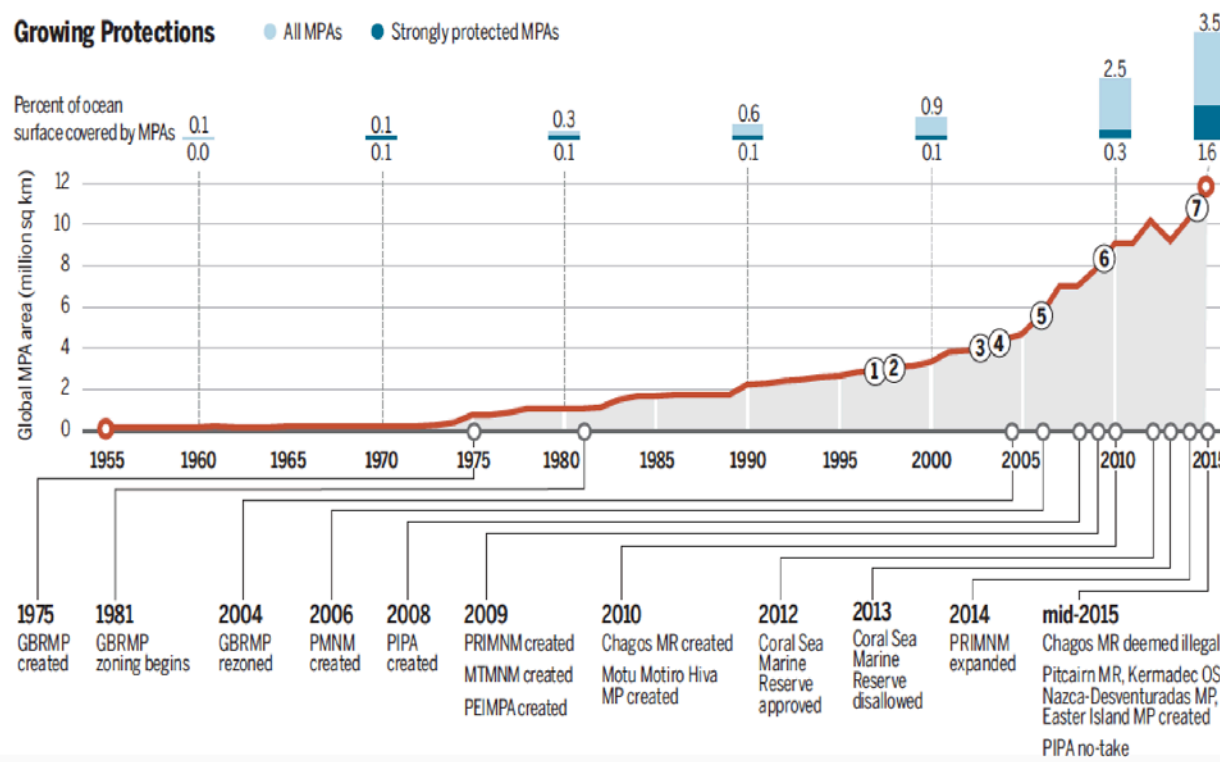
A PRIMER ON MARINE PROTECTED AREAS BACKGROUND FOR THE 10X20 CONFERENCE

Dr. Ellen Pikitch
Stonybrook University and Ocean Sanctuary Alliance

The science is increasingly clear that the establishment of a network of marine protected areas (MPAs) throughout at least 10 % of coastal and marine areas by the year 2020, would help conserve and restore marine biodiversity and assist in regenerating wild fisheries. A greater percentage of protection could pay more significant benefits.

Marine Protected Areas (MPAs) is an umbrella term that encompasses virtually any type of refuge that provides some level of protection. The term “Marine Reserve” applies to fully protected areas that prohibit all consumptive or extractive uses, including fishing, and for which human interference is minimized. Strongly protected areas exclude all commercial activities, but allow low levels of extractive activities for subsistence or artisanal fisheries. In contrast, lightly protected areas offer limited safeguards, while typically allowing substantial commercial extractive activities.

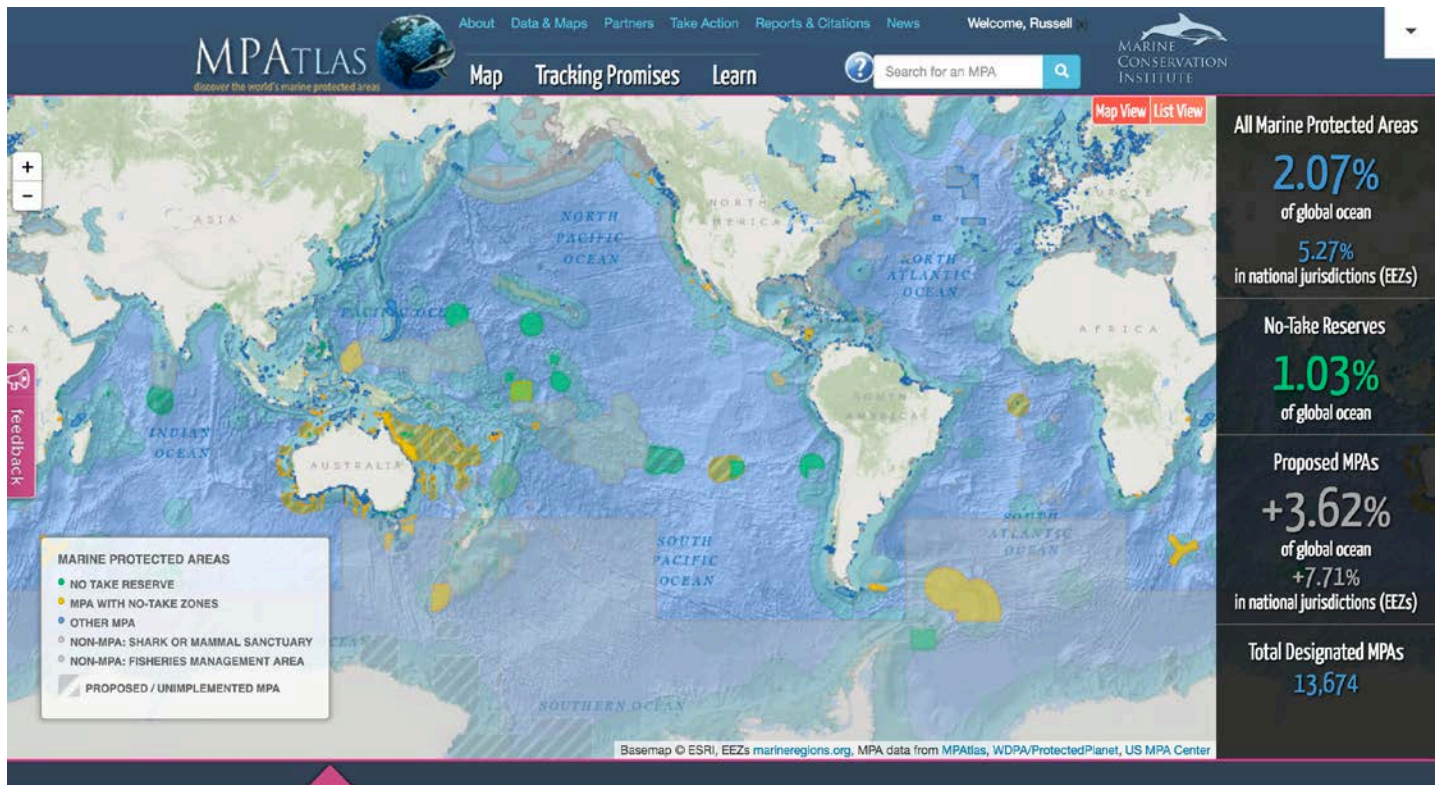
Virtually every country with a marine coastline has declared one or more marine protected areas. There are more than 11,000 marine protected areas in existence; collectively they comprise only 3.5 % of the ocean surface (Lubchenco, 2015).¹ While a very low percentage of the total ocean is protected, there has been significant progress during the last decade, with protection increasing from about 0.9 % of the ocean in 2000, to 3.5% currently (refer to Figure). However, most MPAs are only lightly protected, with less than a third of the total fully protected. Thus, we have a long way to go to reach the 10X 20 goal, and the stretch is even more daunting if the goal is for strongly or fully protected areas.



MPAs conserve biodiversity, enhance resilience, enhance fisheries, and act as an insurance policy if other types of fisheries management do not work. They protect and restore endangered species and ecosystems. They are sites for education and research. They can attract tourists and provide alternative livelihoods for communities. The reserves are capable of bringing back life and restoring key processes like water purification and carbon capture. In addition, they play a significant role in protecting and bringing back the large old fish that have always been the engines of reproduction and population replenishment. Animals that live longer are capable of producing more progeny. Reserves can bring them back; conventional fisheries management will not. The more larval and adult offspring there are, the farther afield they will travel, promoting fisheries and building resilience over large areas.

Existing MPAs are within national jurisdictions, leaving some 58 percent of the ocean, the high seas, without any permanent protection. Extending MPA protection to the high seas could bring significant benefits to the goal of increasing biodiversity (White et al, 2014).²

MPAs have been established throughout the world's oceans, according to data from the MPAtlas, presented at a March 5, 2015, conference in New York, *One Ocean: Achieving Sustainability through Sanctuaries*.



MPA's are widely distributed throughout the globe (see Figure 2). As of October 16, 2015 six countries stood out as having the largest proportions of their EEZ's in strongly or fully protected marine reserves. These were: Chile (25.3%), United Kingdom (21.9%), United States (15.5%), New Zealand (15.2%), Kiribati (11.9%) and Australia (1.9%) (Lubchenco and Grorud-Colvert (2015). ³ In late October, 2015, Palau approved the creation of a fully protected marine reserve constituting 80% of it's EEZ, bringing Palau to the top of the list in terms of percentage coverage.

The vast majority of strongly or fully protected marine reserves are in remote areas, which has benefits for biodiversity conservation, but which limits their usefulness in bolstering fish production (subsistence, artisanal and commercial) in areas close to human population centers.

Studies indicate that the greater the level of protection, the greater the benefits. A study of 87 MPAs showed that the level of protection increased exponentially with the presence of 5 key factors (Edgar et al, 2014).⁴ The key characteristics that increase MPA effectiveness are:

- 1) no take (ie. fully protected),
- 2) well enforced,
- 3) that they be old,
- 4) large, and
- 5) isolated.

Even MPA's that fall short of these ideal characteristics can show substantial benefits. The Leigh Marine Reserve, established in 1975 in New Zealand, is one of the oldest reserves on the planet. Biodiversity rapidly increased when the reserve was established and densities of lobsters remain 10 times higher within the reserve than outside (Kelly and McDermott, 2003).⁵ The reserve also had more healthy kelp forests and fewer urchins than under earlier conditions (Shears and Babcock, 2002).⁶

Following the establishment of an MPA the typical increase in both growth and numbers of fish can be between three to five times within a decade for previously fished species. A reserve in Cabo Pulmo, Mexico, saw an 11 times increase in top predator biomass in 10 years. Animals can spillover from refuges into adjacent fisheries, promoting fisheries and building resilience over large areas.

How long does it take for the benefits of MPA's to be realized?

While an increase in the number and size of fish can be seen within a few years, it may take decades for full benefits to be realized. Returns on investment in protection are proportional to the size of the investment. The greater the size and the level of protection length of time, the greater the benefits achieved (Lester et al, 2009).⁷

Because of the lag time between MPA establishment and the realization of benefits, there is often a significant transition cost. The transition period must be financed, and ongoing resources for management and monitoring may be needed, especially in poor or developing countries. It is necessary for governments and donors to mitigate the full impacts of these transition costs to their communities.

New research shows that MPAs make good economic sense over the long term. A 2015 study estimated that the total ecosystem service benefits of achieving 10 per cent coverage of MPAs (the SDG 14, Target 5) are estimated to be \$622-923 billion between 2015 and 2050. If there was 30 per cent coverage, the benefits range from \$719 billion to \$1,145 billion over the same period. The economic rates of return range between 9 per cent and 24 per cent. These high rates of return indicate a strong economic case for investment in expanding global coverage of MPAs, in terms of net benefits from increased provision of important ecosystem goods and services. The analysis showed benefits even accounting for the lost fishing opportunities (Brander et al, 2015).⁸

Social scientists have also been studying the impacts of MPAs on communities and fisheries, setting the stage for an evolving field of marine reserve science, addressing the questions of how the people and the existing political structures can accommodate MPAs (Gaines et al, 2010).⁹ The establishment of MPAs offers opportunities to revitalize the relationships between communities and stakeholders. Stakeholder involvement in the process is essential to the outcome. Participants must consider not only their objectives, but also the ecology and the goals of the MPA. An excellent plan must be coupled with governance that can and will carry out the plan. Some fishery management programs are making changes outside the marine reserves to achieve more sustainable fisheries.

Since the establishment of the first marine reserves in the 1970s, scientists are finding that fully protected MPAs, with strong enforcement, almost always achieve their primary goal of significant ecological gains, including more species, more of them, and in larger sizes. Networks of reserves that extend from shallow into deeper waters can protect more biodiversity, since many species move among habitats during their life cycles. These connected networks can protect species while allowing some extractive use between reserves (Grorud-Colvert et al. 2014).¹⁰

A key concept of the philosophy of MPAs is that they should represent a diverse selection of habitats. Plans must be crafted within existing governance arrangements, fishery resources, and with ecological considerations such as larval dispersion. There must be a plan to sustain fishers while stocks are rebuilding. MPAs should not be an end in themselves, but a means of achieving objectives.

The establishment of MPAs also recognizes there are other values besides fishing. These include biodiversity conservation, maintaining ecosystem integrity, tourism; wild oceans/parks, and the scientific knowledge that comes from monitoring control sites. Globally, more than 98% of the ocean is open to fishing. Yet, the importance of non-fishing objectives is growing. In some cases the value of leaving fish in the water exceeds that of extracting them. Manta rays, for example, generate \$15,000,000 in ecotourism, while their fished value is \$442,00 (O'Malley et al, 2013). Both biodiversity conservation and sustained fisheries are very high priorities. The Belize Barrier Reef is a World Heritage Site, because of its high biodiversity. Every MPA is zoned to include a managed fishing zone to provide adjacent community benefits.

The Challenges Ahead

The best plans, the best intentions, and the best governance are not sufficient. There must be enforcement, observation, policing, prosecution of violators, and heavy fines. High tech solutions are needed, such as satellite monitoring that may be more cost effective than the old – patrol and apprehend methods. We must harness technologies created for military purposes for the enforcement of MPA laws.

Monitoring is also crucial. We need to be able to measure progress (or lack thereof) so that we know the impact we're having and have the opportunity to make adjustments.

There are also financial obstacles to creating MPAs. For MPAs to realize their full benefits, there needs to be a plan for them to become financially self-sustaining over time. MPAs can be attractive to tourists, and a portion of fishing revenues can support MPA activities. Blue carbon is another possibility and other innovative ideas are being discussed.

The science has documented the benefits that can come from MPAs. The best practices to optimize success have been identified. The challenge in making 10 x 20 a reality will be in the

implementation and governance arenas, making enforcement strong and cost-effective, financing the transition, and creating plans to make sure that the MPAs become self-sustaining financially over the long haul.

Feb. 24, 2016

¹ Lubchenco, J., K. Grorud-Colvert, *Science*, 350 (6259) (2015).

² White, C., C. Costello, *PLOS Biol.* 12, e1001826 (2014).

³ Lubchenco and Grorud-Colvert, Supplementary material
(www.sciencemag.org/cgi/content/full/science.aad5443/DC1).

⁴ Edgar, G. *et al. Nature* 506: 216-220, (2014)

⁵ Kelly, S. and A. B. MacDiarmid. Movement patterns of mature spiny lobsters, *Jasus edwardsii*, from a marine reserve. *New Zealand Journal of Marine and Freshwater Research*. 37:149-158, (2003)

⁶ Shears, N. T. and R. C. Babcock. Continuing trophic cascade effects after 25 years of no-take marine reserve protection. *Marine Ecology Progress Series*. 246:1-16, (2003)

⁷ Lester, S.E. *et al. Marine Ecology Progress Series* 384: 33-46 (2009)

⁸ Brander, L., Baulcomb, C., van der Lelij, J. A. C., Eppink, F., McVittie, A., Nijsten, L. and P. van Beukering. 2015. *The benefits to people of expanding Marine Protected Areas*. VU University, Amsterdam, The Netherlands.. VU University, Amsterdam, The Netherlands.

⁹ Gaines, S. D. *et al.* Evolving Science of Marine Reserves: New Developments and Emerging Research Frontiers. *Proceedings of the National Academy of Sciences of the United States of America* 107.43: 18251–18255. (2010)

¹⁰ Grorud-Colvert, K., Claudet, J., Tissot, B.N., Caselle, J.E., Carr, M.H., Day, J.C., Friedlander, A.M., Lester, S.E., de Loma, T.L., Malone, D. and W.J. Walsh. 2014. Marine Protected Area Networks: Assessing Whether the Whole Is Greater than the Sum of Its Parts. *PLoS ONE* 9 (8):e102298.



THE 10x20 INITIATIVE

Conference on Marine Protected Areas: An Urgent Imperative A Dialogue Between Scientists and Policymakers *Ministry of Foreign Affairs and International Cooperation, Rome (March 7th – 9th, 2016)*

AGENDA

Sunday, March 6th

Arrival of Scientists
Transfer to the Bernini Bristol Hotel (Piazza Barberini 23)

Monday, March 7th

Morning

A SIGHTSEEING GUIDED TOUR WILL BE ORGANIZED FOR INTERESTED PARTICIPANTS

Afternoon

1:30 PM

Welcome lunch

Speeches by:

-Ambassador Michele Valensise, Secretary General of the
Ministry of Foreign Affairs and International Cooperation
-Dr. Ellen Pikitch, Professor and Executive Director, Stony
Brook University, Institute for Ocean Conservation Science
Scientific coordinator of the Conference

2:30 – 4:00 PM

SCIENTIFIC SESSION - *Overview of Projected Outcomes:*
Discussion among Scientists on how best to assist
policymakers in achieving Target 5 of SDG 14 by:

- Reviewing the best available science on marine protected areas;
- Discussing best practices for siting, developing, implementing, governing and enforcing these areas;
- Considering how sanctuaries can be made financially self-sustaining.
(*establishment of what is agreed upon and what is contentious*)

(Coffee break during session)

4:00 – 6:00 PM

SCIENTIFIC SESSION - *Breakout Groups*:

- 1) Important characteristics of MPAs, including size, optimal locations, and networks to ensure connectivity and representativeness, etc.;
- 2) Governance of MPAs;
- 3) Financial sustainability.

7:00 PM

Cocktails and dinner

Circolo degli Affari Esteri (Lungo Tevere Acqua Acetosa, 42)

Dinner speaker: Giuseppe Notarbartolo di Sciara on the experience of the Pelagos Sanctuary for Mediterranean Marine Mammals, established by France, Italy and Monaco

Tuesday, March 8th

Arrival of diplomatic representatives in the morning – Transfer to the Bernini Bristol Hotel (Piazza Barberini 23)

A SIGHTSEEING GUIDED TOUR WILL BE ORGANIZED IN THE AFTERNOON FOR INTERESTED PARTICIPANTS

Morning

9:00 – 10:00 AM

SCIENTIFIC SESSION – *Plenary*:

Report by representatives from each of the breakout groups on progress made

10:00 – 11:00 AM

SCIENTIFIC SESSION - *Breakout Groups*:

- 1) Important characteristics of MPAs, including size, optimal locations, and networks to ensure connectivity and representativeness, etc.;
- 2) Governance of MPAs;
- 3) Financial sustainability.

(Coffee break during session)

11:00 AM – 1:30 PM SCIENTIFIC SESSION - *Continuation of Breakout Groups*

1:30-3:00 PM Lunch

Afternoon

3:00 – 5:00 PM SCIENTIFIC SESSION - *Plenary: Cross-fertilization of Ideas*

(Coffee break during session)

5:00 – 6:00 PM SCIENTIFIC SESSION - *Finalization of Scientists' Consensus*

Evening

8:30 PM WORKING DINNER
Villa Madama (via di Villa Madama)
Keynote speech by H.E. Vincenzo Amendola, Under-Secretary of State for Foreign Affairs and International Cooperation
Discussion among Scientists, Diplomats and representatives of the Italian business community on the theme:
“How to use technology for SDG 14”

Wednesday, March 9th

Joint Sessions of Scientists and Diplomats

Morning

9:00 – 9:30 AM WELCOMING REMARKS

- H.E. Paolo Gentiloni, Minister of Foreign Affairs and International Cooperation of Italy
- Mr. Mark Newhouse, Chairman of the Ocean Sanctuary Alliance
- Mr. Jan Dusik, Regional Director and Representative for Europe, UNEP

9:30 – 10.00 AM

Presentation of Scientists' Consensus

(Coffee break during session)

10:00 – 1:30 PM

Comments by Diplomats

Joint dialogue between Scientists and Diplomats on how to operationalize the science for use by policymakers

(Coffee break during session)

1:30 – 2:30 PM

Lunch

Afternoon

2:30 – 4:00 PM

Presentation of successful examples: How to start a protected area and make it self-sustaining

4:00 – 5:30 PM

Conclusion of dialogue and CALL TO ACTION

5:30 PM

CONCLUDING REMARKS

H.E. Gian Luca Galletti, Minister of Environment, Land and Sea of Italy

Free Evening

(Dinner at Hotel optional)

Thursday, March 10th

Departure of all participants





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*Ministry of Foreign Affairs and International Cooperation, Rome
(March 7th – 9th, 2016)*

SCIENTISTS

Angelique Brathwaite, Barbados

ABrathwaite@blue-finance.org

Blue Finance, Sustainable Funding for
Conservation

Project Associate

http://blue-finance.org/index.php/dt_team/angelique-brathwaite/

Eric Carey, Bahamas

ecarey@bnt.bs

Bahamas National Trust

Executive Director

<http://www.bnt.bs/UserFiles/HTMLEditor/New%20Strategic%202013-2017.pdf>

<http://www.aam-us.org/docs/default-source/international/bahamas-bahamas-national-trust.pdf?sfvrsn=2>

Dr. Miriam Fernandez, Chile

mfernandez@bio.puc.cl

Pontificia Universidad Católica de Chile, Centro
de Conservación Marina

Director

<http://conservacionmarinauc.cl/about-us/who-is-who/miriam-fernandez/>

Dr. Anne Fontaine, Guadeloupe

anne.fontaine.carspaw@guadeloupe-parcnational.fr

Regional Activity Centre for Specially Protected
Areas and Wildlife

SPAW-RAC Director

www.car-spaw-rac.org

Dr. Yimnang Golbuu, Palau

ygolbuu@picrc.org

Palau International Coral Reef Center

CEO

<http://www.pewtrusts.org/en/projects/marine-fellows/fellows-directory/2013/yimnang-golbuu--ph-d>

Ms. Christine Greene, Kiribati

cgreenela@mac.com

Phoenix Islands Protected Area (PIPA)

Kiribati Cultural Ambassador

<http://pacificrising.org/team/christine-greene>

Dr. Paolo Guidetti, Italy & France

Paolo.GUIDETTI@unice.fr

Université de Nice

Full Professor, Director of the Research Unit

<http://ecomers.unice.fr/index.php/people/faculty-and-researchers/16-paolo-guidetti-professeur-d-universite-aires-marines-protegees>

Dr. Andrew Hudson, International
andrew.hudson@undp.org
United Nations Development Programme
Head of Water and Ocean Governance
Programme
<http://www.undp.org/content/undp/en/home/presscenter/speakers-corner/speakers/andrew-hudson.html>

Dr. Peter JS Jones, United Kingdom
p.j.jones@ucl.ac.uk
University College London
Reader in Environmental Governance
<http://www.geog.ucl.ac.uk/about-the-department/people/academic-staff/peter-jones>

Dr. Rahanna Juman, Trinidad and Tobago
rajuman@ima.gov.tt
Institute of Marine Affairs
Research Officer (Wetlands Ecology)
http://www.choices.edu/resources/scholars_Juman.php

Wilfred Kagimbi, Kenya
wkagimbi@kma.go.ke
Kenya Maritime Authority
Head of Maritime Safety
<http://www.zoominfo.com/p/Wilfred-Kagimbi/1268617231>

Dr. Joseph (Yossi) Loya, Israel
yosiloya@gmail.com
Tel Aviv University, Faculty of Life Sciences
Professor
<https://en-lifesci.tau.ac.il/profile/yosiloya>

Dr. Laurence McCook, Australia
laurence.mccook@jcu.edu.au
James Cook University
Adjunct Principal Research Fellow
<https://theconversation.com/profiles/laurence-mccook-158540>

Meity Mongdong, Indonesia
mmongdong@conservation.org
Conservation International
Bird's Head Seascape Portfolio Manager
<https://www.ashoka.org/fellow/meity-mongdong>

Dr. Lance Morgan, USA
Lance.Morgan@marine-conservation.org
Marine Conservation Institute & MPAtlas
President
https://marine-conservation.org/who-we-are/staff/#member_32

Dr. Agnes Muthumbi, Kenya
amuthumbi@uonbi.ac.ke
University of Nairobi
Senior Lecturer, School of Biological Sciences
https://profiles.uonbi.ac.ke/files/176890_CV_Muthumbi_Agnes_WN.pdf

Dr. Giuseppe Notabartolo di Sciara, Italy
disciara@gmail.com
Tethys Research Institute
President
https://en.wikipedia.org/wiki/Giuseppe_Notabartolo_di_Sciara

Dr. Jose Padilla, Thailand
jose.padilla@undp.org
UNDP/GEF; Marine, Coastal, and Island
Ecosystems - Asia Pacific
Regional Technical Advisor
<http://www.snap-undp.org/Lists/WholsWho/DispForm.aspx?ID=39>

Dr. Ellen Pikitch, USA
ellen.pikitch@stonybrook.edu
Stony Brook University, Institute for Ocean
Conservation Science
Professor and Executive Director
<http://www.somas.stonybrook.edu/people/faculty/ellen-pikitch/>

Dr. Juan Manuel Posada, Panama
juan.posada@marviva.net
MarVIVA
Sciences Technical Manager
http://www.marviva.net/index.php/en/?option=com_content&view=article&id=289:staff-ingles-panama&catid=34:marviva-information

Dr. Callum Roberts, United Kingdom
callum.roberts@york.ac.uk
University of York
Professor
<https://www.york.ac.uk/environment/our-staff/callum-roberts/>

Dr. Todd Stevenson, USA
tstevenson@oceanconservancy.org
Ocean Conservancy
Specialist, International Arctic Program
https://www.researchgate.net/profile/Todd_Stevenson/publications

Dr. Gregory Stone, Kiribati
g.stone@conservation.org
Conservation International
Executive Vice President
<http://www.conservation.org/newsroom/experts/Pages/ci-experts-details.aspx?expertId=42&name=Dr.%20Gregory-Stone>

Dr. Ussif Rashid Sumaila, Nigeria and Canada
r.sumaila@fisheries.ubc.ca
The University of British Columbia, The Institute for the Oceans and Fisheries
Professor
<http://oceans.ubc.ca/rashid-sumaila/>

Dr. Julia Guifang Xue, China
julixue@sjtu.edu.cn
Shanghai Jiao Tong University, KoGuan Law School
Chair Professor
<http://ancors.uow.edu.au/graduates/UOW190277.html>

Dr. Tymon Przemyslaw Zielinski, Poland
tymon@iopan.gda.pl
Polish Academy of Sciences, Institute of Oceanology
Associate Professor
<http://www.polarknow.us.edu.pl/wp-content/uploads/ZielinskiTymonCV14.pdf>

OTHER PARTICIPANTS

Tulik Beck – Ocean Sanctuary Alliance, Board of Directors

Francesca Bellu' – Italian Mission to the United Nations in New York, Adviser

Valeria Biagiotti – Italian Mission to the United Nations in New York, First Counsellor

Dr. Ferdinando Boero - University of Salento (Italy), Professor

John Bohorquez - Stony Brook University (USA) and Ocean Sanctuary Alliance

Stefhanie Boyd - Ocean Sanctuary Alliance

Dr. Stefano Donati – MPA “Egadi Islands” (ITALY), Director

Amir Dossal - Ocean Sanctuary Alliance, Co-founder

Jan Dusik, Regional Director and Representative for Europe, UNEP

Laura Fassio Canuto - Italian Mission to the United Nations in New York, Adviser Environment and Sustainable Development

Dr. Mounir Ghribi - Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Trieste (ITALY)

Lorna Inniss – UNEP Caribbean Environment Programme, Coordinator

Karen McDonald Gayle - UNEP SPAW, Programme Scientist

Tommy Moore – Secretariat of the Pacific Regional Environment Programme (SPREP), Officer

Lorry Newhouse - Ocean Sanctuary Alliance

Mark Newhouse - Ocean Sanctuary Alliance, Chairman

Christine Santora - Stony Brook University (USA) and Ocean Sanctuary Alliance

Rachel Silver - Stony Brook University (USA) and Ocean Sanctuary Alliance

Takehiro Nakamura - UNEP Marine Ecosystems Unit, Chief

Christine Valentin - World Ocean Council, Director of Strategy, Membership, and Finance

Ole Vestergaard - UNEP Marine Ecosystems Unit, Programme Officer

Joan Yang - Pew Charitable Trusts, Senior Officer (USA)

Rosalind Walrath - Ocean Sanctuary Alliance, Board of Directors



THE 10x20 INITIATIVE

Conference on *Marine Protected Areas: An Urgent Imperative A Dialogue Between Scientists and Policymakers* Ministry of Foreign Affairs and International Cooperation, Rome (7–9 March 2016)

The [Government of Italy](#), the [Ocean Sanctuary Alliance](#) and the [UN Environment Programme](#) (UNEP) recently organized the [international 10X20 conference](#) (7-9 March, 2016) to support the achievement of a globally agreed target to conserve at least 10% of coastal and marine areas by the year 2020 ([SDG 14, Target 5](#)). The first two days of the conference (chaired by [Ellen Pikitch](#)) involved 25 international experts in discussions on good practice for measures to designate and promote the effectiveness of marine protected areas (MPAs), focusing on science (led by [Callum Roberts](#)), governance (led by [Peter Jones](#)) and finance (led by [Rashid Sumaila](#)). During the third day, diplomatic representatives from 33 countries from around the world, particularly small island developing states along with 11 coastal states, joined the conference to agree a [Call to Action](#) and [Scientists' Consensus Statement](#). These outputs aim to provide a "road map" for moving forward on achieving the 10% marine protection target, as part of the 2030 Agenda for Sustainable Development. This will help guide national governments, United Nations agencies and other development agencies and donors in MPA projects around the world, promoting MPAs that are designated on the basis of the best available science, that are effectively and equitably governed, and that are financially sustainable and contribute to sustainable development.

The Italian Minister of Foreign Affairs, the Hon. Paolo Gentiloni, opened the scientists-diplomats joint session. The Italian Minister of the Environment, Land and Sea, the Hon. Gian Luca Galletti, closed the event.

"The 10X20 Initiative was launched in October 2015 by the Government of Italy and by the Ocean Sanctuary Alliance to promote the achievement of target 5 of SDG14. A steering committee has been established as the instrument of advocacy of the initiative as well as a means for generating support for the voluntary creation of MPAs and a forum for exchanging knowledge and best practices. The Steering Committee brings together governments, international organizations, NGOs, foundations and private companies and is open to all Member States."

This information bulletin can be [downloaded here](#)

PRESENTATIONS

["How to design highly effective marine protected areas"](#) by Callum Roberts, Professor of Marine Conservation, University of York, UK

["Governing marine protected areas: social-ecological resilience through institutional diversity"](#) by Dr Peter JS Jones, UCL

["MPA Financing"](#) by U. Rashid Sumaila, Fisheries Economics Research Unit, The Global Fisheries Cluster, UBC Oceans and Fisheries, Vancouver, Canada

[Call to Action](#)

[Scientists' Consensus Statement](#)

Conference on Marine Protected Areas: An Urgent Imperative. A Dialogue between Scientists and Policymakers. Rome, Italy, 7-9 March 2016

Statement by Ambassador Peter Thomson, current President of the Council of the International Seabed Authority, and Permanent Representative of Fiji to the United Nations, New York.

Excellencies, Ladies and Gentlemen.

Last September at the United Nations in New York, the nations of this world universally adopted the 2030 Sustainable Development Agenda, a carefully crafted agenda that is meant to guide humanity's endeavors on this planet for the next fifteen years. Taken together with the Paris Agreement on Climate Change concluded last December, we now have two international conventions whose implementation just might be enough to secure the future of our species on Earth.

A few years ago when the design of the 2030 Sustainable Development Agenda was in its nascent stages, the Pacific Small Island Developing States in New York made a decision to insist on the inclusion of a sustainable development goal addressing the sustainability of Ocean resources. In so doing, we were driven by an acute awareness of the decline of the overall health of the Ocean, and what this meant for life in the Pacific. A coalition of like-minded countries built up with the ultimate result that Sustainable Development Goal 14, the so-called Oceans Goal or SDG14, was incorporated into the 2030 Development Agenda.

You will all be aware that SDG14 includes a range of targets. These include the reduction of marine pollution, the protection of coastal ecosystems, minimizing ocean acidification, effective regulation of fish-stocks, eliminating fisheries subsidies, increasing economic benefits to SIDS and LDCs, increasing scientific knowledge, developing research capacity, transferring marine technology to improve ocean health and enhance marine biodiversity, assisting small-scale artisanal fishers, enhancing conservation and sustainable use as provided for in UNCLOS, and of course the conservation of coastal and marine areas based on best available scientific information. It is this latter target that is the focus of this week's timely conference, namely target 14.5 stating that by 2020 we should conserve at least 10 per cent of coastal and marine areas.

There are of course many challenges that face the achievement of target 14.5, but many of us are convinced this is one of the most deliverable elements of SDG14. In fact there is considerable room for raising of ambition of the percentage to be conserved and more will be said on that assertion later in this statement.

There are three points that my statement brings to the attention of the scientists attending this Roman gathering today. The first is that the United Nations has mandated a UN Conference to Support the Implementation of SDG14. The UN Conference will be held in Fiji, 5-9 June 2017 and it will have the following functions: to learn the truth on the current state of the Ocean as covered by the targets of SDG14; to establish the positive partnerships, projects and programmes required to rectify the decline of Ocean's health; and to benchmark findings and undertakings with a view to accountability at the next UN Conference on SDG14. It is envisaged that these UN conferences will be held

every three years in order to drive the implementation of SDG14 to full fruition by the year 2030.

Next year's UN Conference on SDG14 will be open to all relevant parties and it goes without saying that the scientific community will have a critical role to play in its success. I underline that point, you the scientists working in the marine field are going to be an absolutely essential element of the Fiji conference. Insofar as the present gathering of scientists in Rome is concerned, the findings and ongoing work arising from this week's dialogue could well be the central force to inform the UN conference in Fiji next year with regards to the Marine Protected Areas target. Thus I encourage you all to think about how your work here can best be applied to the overall implementation of SDG14, for which purpose the UN Conference has been mandated.

The second point I wish to present for your consideration this week is the inescapable linkage of the marine protected areas target to the totality of SDG14 targets. There is for example clearly a positive linkage between marine protected areas and the target on protecting coastal ecosystems, likewise the target of regulating fish-stocks, or the target of increasing economic benefits for example through ecotourism. Consideration should also be given to the negative effects on marine protected areas target if some of the other targets are not achieved. For example a failure on the ocean acidification target might undo much of the good done by all the other targets. As a further example, in Fiji last month a spike in water temperatures resulted in devastating coral bleaching and widespread fish mortality over the space of a few days, with little distinction in damage whether the reefs were inside or outside marine protected areas. A paper prepared by the Government of Fiji's Fisheries Department recording findings from this recent marine event is being distributed to you today, findings which suggest that localized increases in water temperature can decimate prevalent marine life.

The last point I wish to make is that there is scope for a considerable increase in the ambition of target 14.5 if areas outside national jurisdictions are taken into consideration. Over half of the planet's surface falls outside the national jurisdictions of sovereign states into what are generally called the High Seas. As you know, an international agreement will be negotiated in coming years to establish a convention on the governance of biological biodiversity beyond national jurisdictions, commonly known as BBNJ. The first preparatory committee meeting to set the ground for these BBNJ negotiations gets underway in New York in a few weeks time. Since the eventual agreement is expected to establish rules on the conservation and sustainable use of the biological resources of the High Seas, the BBNJ negotiations present real opportunity for the creation of marine protected areas beyond the 10% mentioned in SDG14.

Related to this last point is that of the governance of the seabed outside areas of national jurisdiction, designated under the UN Convention on the Law of the Sea (UNCLOS) as "the Area", is already in place and is acting on protected areas. UNCLOS gives the International Seabed Authority, based in Kingston, Jamaica, the responsibility for governance of the Area's seabed, the resources of which are designated under UNCLOS as the common inheritance of mankind. Since the Area is governed by the International Seabed Authority, it could be argued that the Area is already in essence a marine protected area. However, as I'm sure you're aware, there is intense interest in the mineral deposits of certain parts of the Area.

The work at hand for the seabed is for sovereign states, scientific institutions, and other interested parties including those wanting to exploit the seabed's resources, to design a scientific case for the areas that need to be set aside, alongside those that will be subject to exploitation. A good example of what can be done is in the Clarion-Clipperton Zone (CCZ), the area between Mexico and Kiribati that has the seabed's richest deposits of polymetallic nodules. The CCZ environmental management plan has already protected around 30% of this bioregion - a map of the CCZ showing the protected areas is being distributed to you. What is needed now is for the International Seabed Authority to replicate this plan in other regions where seabed mining is likely to take place, including the Mid-Atlantic Ridge, parts of the Indian Ocean, and the cobalt-crust areas in the Pacific Ocean. The thrust here is to get a close relationship between protected areas and areas of interest for exploitation, rather than just protecting empty spaces.

There is a close relationship between the debate on marine protected areas of High Seas under the BBNJ process and the International Seabed Authority's specific responsibility for protecting the deep seabed. To put it simply, the correct line of thinking in these times is to ensure that both the ISA and the BBNJ regime-to-be are fully aligned with SDG14.

Thank you to Oceans Sanctuary Alliance and the Government of Italy for the opportunity to address this distinguished gathering of scientists today. The Global Ocean Commission concluded its work in 2014 with message that the health of our Ocean is caught in a cycle of decline. There are many of us now working to reverse that cycle and restore to our grandchildren an Ocean full of glorious sustainable life. Our work can only achieve its goal if there is seamless interaction between the scientific community and policymakers, so more power to you this week and in our work in the years ahead.

For further details contact:

Peter Thomson
Permanent Representative of Fiji to the UN
801 2nd Ave, 10 flr, New York, NY 10017
ph: (+1) 212 687 4130 fax: 212 687 3963
twitter: @ThomsonFiji
email: pthomson@fijiiprun.org



THE 10x20 INITIATIVE

Conference on Marine Protected Areas: An Urgent Imperative A Dialogue Between Scientists and Policymakers

*Ministry of Foreign Affairs and International Cooperation, Rome
(March 7th – 9th, 2016)*

ROME CALL TO ACTION Rome, March 9th 2016

We the scientists and diplomats gathered in Rome on 7 – 9 March 2016 to initiate a dialogue on responding to the imperative of increasing the geographical scope of Marine Protected Areas by 2020, as mandated by Agenda 2030 and embodied into target 5 of Sustainable Development Goal 14,

ACKNOWLEDGING that the scientific knowledge about MPAs constitutes a sound and reliable basis for providing guidance and direction for achieving Target 14.5,

RECOGNIZING that the social, cultural, environmental and economic benefits deriving from Marine Protected Areas, that include increased food security, provision of livelihood options, better economic returns from marine resources, and greater resilience and disaster risk reduction in the face of climate change, are among the basic building blocks on which to advance sustainable development,

RECOGNIZING that the achievement of globally representative and ecologically networked protected marine ecosystems is integral to Target 14.5 and that MPAs are also needed in areas closer to human population centres,

CONSIDERING that well-planned and fully or strongly protected MPAs are the most effective in realizing the many potential benefits,

ACKNOWLEDGING that diversity is key to resilience and that the potential conflicts between use and conservation of marine resources can be addressed and resolved by means of a sound and robust MPA governance capacity,

ACKNOWLEDGING that the achievement of SDG Target 14.5 is a process that should be aligned and coordinated with existing legal frameworks contained in MEAs, such as CBD (including Aichi Biodiversity Strategy 2011-2020, Target 11), the SAMOA Pathway and the new Paris Agreement on Climate, as well as ongoing intergovernmental discussions regarding the development of a legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, and other international initiatives such as the Micronesia Challenge, the Coral Triangle and the Caribbean Challenge Initiatives and the Parties to the Nauru Agreement.

We have taken account of the foregoing aspects and issue the following

CALL to ACTION

1. Incorporate the establishment of MPAs into the national strategies that are being adopted to implement and localize the 2030 Agenda for Sustainable Development;
2. Make use of the best available science as well as institutional and operational experience to establish, maintain, and effectively manage MPAs¹;
3. Consider that Target 14.5 represents an important waypoint rather than an endpoint in our quest towards the implementation of Sustainable Development Goal 14 and the achievement of healthy, resilient and productive oceans;
4. Map and describe areas where MPAs are especially needed and prioritize protection of vulnerable species and habitats as an initial measure in view of the year 2020 target, giving the highest consideration to both biodiversity distribution and ecosystem functioning ;
5. Promote and help develop MPA governance frameworks that are appropriate to the specific MPA context and draw in an integrated manner on economic, knowledge, legal and participative incentives;
6. Devise approaches for sustainability of MPAs that can best ensure the long term benefits of MPAs and their fair and equitable distribution among all sectors;
7. Devise and help develop approaches to consistently involve all stakeholders, including local communities in a just and equitable manner in the assessment, designation and management of MPAs to improve ownership, benefit from traditional knowledge and practices, and stimulate the creation of livelihoods, thereby increasing the likelihood of success and sustainability;
8. Increase focus on the economic issues related to MPAs and help devise and develop updated cost-benefit analysis that take into account the existing gap between the short term nature of investments and the long term character of MPA benefits;

¹ Including the Rome 10x20 Conference Scientists' Consensus statement

9. Support resource mobilization activities from all sources with a view to promoting and accelerating investment in the establishment and maintenance of MPAs, as part of the international effort towards the achievement of sustainable development;

10. Help countries with capacity building and identification of resource opportunities.

IN FURTHERANCE OF THESE AIMS WE CALL ON

11. The international scientific community to continue research on Ocean issues on an urgent priority basis;

12. The group of scientists and other MPA experts gathered in Rome to offer their assistance in the implementation of Target 5 of Sustainable Development Goal 14 both globally and in specific regions, including the application of their recommendations provided in the Rome Scientists' Consensus;

13. The Steering Committee of the 10x20 Initiative to:

(a) intensify its advocacy and support role to bring the present Call to Action to the attention of the international community;

(b) devise appropriate and effective follow-up activities to the CALL to ACTION;

(c) promote further dialogue between the scientific community and policy-makers including calling upon and engaging the group of MPA experts gathered in Rome;

(d) develop a "tool-box" that will assist in the identification, design, finance and governance of appropriate MPAs and MPA networks in a multiplicity of contexts, including transitional challenges for the establishment of MPAs.

14. The Steering Committee of the 10x20 Initiative to bring to the attention of Member States, including through the High Level Political Forum, the present CALL to ACTION and to convey to them the request to include into the Agenda of the forthcoming international conference on the Oceans – Fiji, 2017 – consideration of progress made towards the achievement of Target 14.5.

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THE 10X20 INITIATIVE

Conference on Marine Protected Areas: An Urgent Imperative A Dialogue Between Scientists and Policymakers

Scientists' Consensus Statement on Marine Protected Areas (MPAs): Characteristics, Governance, and Sustainable Financing Rome, Italy 9 March 2016

Sustainable Development Goal 14 of the United Nations, Target 5 states that “By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.” The purpose of this consensus statement is to provide scientific and experience-based guidance on how to achieve the target of establishing 10% of the oceans as Marine Protected Areas (MPAs) by 2020. It was composed by a group of 25 MPA experts from all regions of the globe, who shared information and deliberated from March 7-8, 2016, at the 10 x 20 Conference held in Rome.

The 25 experts included both scientists and MPA practitioners, bringing together theoretical, research-based, and practical experience with MPAs. They drew upon a large and increasing body of knowledge that demonstrates the success of well-planned and implemented marine protected areas in conserving biodiversity and ecosystem functioning, and producing other ecological, social, cultural and economic benefits¹. MPAs can increase food security by recovering exploited populations, rebuilding their habitats, increasing reproductive output, increasing replenishment of surrounding fishing grounds, enhancing catches via spillover, reducing population fluctuations, maintaining genetic variability of stocks and increasing resilience to environmental fluctuations. These effects may also lead to greater resilience in the face of anthropogenic global change, improved climate adaptation, and increasing food security as fishers and fish adapt to a changing environment. Experts focused on three general questions during their deliberations:

- 1) What are the characteristics of MPAs that will make them most effective at conserving biodiversity and regenerating fish populations?
- 2) What governance structures might best support the successful implementation and management of MPAs?
- 3) How can MPAs be made financially self-sustaining?

¹ Pikitch, E. (2016) A primer on Marine Protected Areas, Background for the 10 x 20 conference. Herein Marine Protected Areas (MPAs) is an umbrella term that encompasses virtually any type of refuge that provides some level of protection.

This Consensus Statement outlines points of agreement in each of these topic areas by the experts who participated in the conference.

Consensus on MPA Characteristics (1-12)

SDG 14, Target 5 does not specify the characteristics (level of protection, etc.) of the MPAs contributing to the 10%, but the “best available science” is to be used. Therefore, in order to best achieve the intent of 10 x 20, we provide the following distillation of scientific knowledge and experience of how to design highly effective MPAs. This information could also be used for evaluation of existing MPAs with a view to upgrading those that are found to fall short of the standards necessary to perform effectively.

1. MPA establishment should be based on the best available science. MPAs should be established based on what we know now rather than delaying until more information is available, but we should use MPA creation as learning opportunities to better understand the oceans and the life in them, as well as people’s interactions and dependence on the sea. Such learning should include efforts to inventory natural capital, to define effective natural units of conservation needed to promote ecosystem functioning, and to refine the design of MPAs and networks.

2. Marine protected areas work best when they are fully protected from exploitation and other sources of harm. They do not work well when they receive only light protection. The delivery of benefits is tightly and positively linked to the level of protection given (assuming that MPAs are well-managed, see Governance section). Fully protected marine reserves² (i.e. places that prohibit all fishing and other extractive uses) are most effective. Strongly protected MPAs (limiting exploitation to well-managed subsistence or artisanal fishing and banning destructive gear types, promoting ecotourism etc.) can also be effective. **Therefore, in meeting the 10% MPA target, countries should seek to maximise the inclusion of fully or strongly protected MPAs (IUCN categories, I and II), including fully protected zones within large, multiple use MPAs.** It is important to recognize, however, that small amounts of fish extracted by large numbers of people can add up to substantial exploitation, hence the need for MPAs to be well-managed. While high levels of protection offer the greatest benefits to marine life, including fishers operating outside MPAs, such protection is not intended to exclude well-managed, non-consumptive uses from within and around MPAs. These uses, including tourism, can bring significant benefits such as recreation, inspiration and financing for protection (see Financing section).

3. MPA objectives should take into account and seek to reverse historical decline and degradation in marine ecosystems.

4. The most effective MPAs target protection to the ecosystem level, encompassing a wide spectrum of biodiversity, rather than a few species. Many existing MPAs seek to protect the seabed without protecting the water column or vice versa. Such an approach runs contrary to the ecosystem approach and MPAs that make this distinction are not as effective as those that afford protection to the entire water column. Depth limited protective measures often fall short in another way. For example, many coral reefs and other biogenic systems are protected only to approximately 30 m deep, but such systems may extend much deeper. Depth limited protection risks the problem that we could meet the SDG 14 10% MPA target by

² In this document we follow the definitions of Lubchenco and Grorud-Colvert (2015): lightly protected MPAs are places where some protection exists but significant extractive activity is allowed; strongly protected MPAs prohibit all commercial activity with only light recreational and subsistence fishing allowed, while in fully protected MPAs no extractive activities are allowed (also called “marine reserves”). The term Marine Protected Area (MPA) encompasses all three categories. Lubchenco, J. and Grorud-Colvert, K. (2015) Making waves: The science and politics of ocean protection. *Science*, 350, 382-383

area but fall far short in terms of the volume of the sea protected. Therefore, **sea surface to seabed protection should be the default position for effective MPAs.**

5. Marine protected areas require a long-term commitment. Benefits are often apparent within a few years of establishment and continue to build for decades. Benefits can be lost within weeks or months if protections are lifted. Hence, at the point of establishment, the default assumption should be that an MPA is to be permanent.

6. MPAs should be as large as possible, appropriate to the location. Large MPAs generally yield greater benefits than small MPAs. They sustain larger populations of protected species resulting in lower extinction risk and have higher resilience to environmental fluctuations and change. They are less susceptible to ‘edge effects’ where human impacts spread into the protected area from outside. However, small, well managed MPAs or zones within larger multiple-use MPAs can produce significant benefits too and can be particularly valuable in intensively used settings where the options for large MPAs are limited, calling for the establishment of networked MPAs.

7. The benefits of MPAs are proportional to their coverage. Scientific evidence to date indicates that many of the desired benefits of MPAs will only be secured by MPA coverage in the region of several tens of percent of the oceans³. The World Parks Congress of 2014 in Sydney recommended that countries aim for 30% coverage of strictly protected MPAs (i.e. equivalent to fully protected). This is strongly supported by scientific evidence. A target of 30% by 2030 is gaining momentum among scientists and conservation interests. **The SDG 14 MPA target says countries should establish “at least 10% MPAs” and 10% should therefore be viewed as an important waypoint rather than the endpoint for ocean protection.**

8. MPAs are best established in strategically designed networks to produce greater overall benefits. Networked MPAs represent a wider diversity of species and habitats than individual MPAs. While individual MPAs may not support self-sustaining populations of all species, networked MPAs can achieve viability at the large scale through connectivity of populations and protection of places important to their multiple life stages.

Good networking principles include:

- a. Represent the full spectrum of habitats, ecosystems and species, although initially consider giving greater priority to the most vulnerable and threatened, or the most intact. To date, MPA selection in many places has favoured charismatic species and habitats, aesthetic qualities over ecological function, and remote places. **Effective MPA networks must include the full ecological portfolio that extends protection to all of biodiversity and ecosystem function.**
- b. Use of MPA size and spacing rules to maximise long-term viable populations inside individual MPAs and collectively across the network. Recommendations vary but typically suggest MPAs of 5-20 km in minimum dimension spaced 20-80 km apart.
- c. Replication of habitats in at least 3-4 MPAs per biogeographic region.
- d. Inclusion of places important to the life cycles of commercially important species.
- e. Inclusion of networks of interdependent habitats, such as mangroves, seagrasses, coral reefs, and linkages between water column and seabed habitats, and other oceanographic features.
- f. Inclusion of places likely to be more resistant and/or resilient to climate change.
- g. Isolation has been positively linked to MPA effectiveness and may be a useful criterion for MPA selection.

³ O’Leary, B.C., Winther-Janson, M., Bainbridge, J.M., Aitken, J., Hawkins, J.P., Roberts, C.M. (in press) Effective coverage targets for ocean protection. Conservation Letters.

- h. Enhancing benefits for local communities.
- i. While strategic design is most efficient, we should always be open to opportunities when they present themselves.

9. The global system of MPAs is uneven and gaps must be filled. A sizeable fraction of MPAs are in the USA, Australia and European waters (including overseas territories). A significant increase in the rate of creation is needed in Africa, Latin America and the Caribbean, South and East Asia and Small Island states where coastal economies, livelihoods and food security are more dependent upon healthy functioning marine ecosystems. Polar regions are also under-represented. The majority of the existing area of MPAs (but not numbers) lies in remote places. However, more MPAs are also needed in areas closer to human population centers so that communities in such areas may achieve the stability and quantity of food security, conservation, climate change resilience and socio-economic benefits they need.

10. In selecting sites for MPAs, some places have enormous global significance that transcends local importance and should be protected as a matter of priority under any national or international selection scheme. For others human pressures, including climate change, may be such that protection cannot deliver all of the benefits expected in less stressed regions. Nonetheless, marine life and the people that depend on it will in the long-term fare better with good protection and management than without, whatever the future holds. Many of the benefits of MPAs are delivered locally, so those who live nearby gain most. This also holds for places close to population centers where MPAs may offer significant benefits to local people despite not reaching levels of performance seen for more remote sites. Furthermore, low diversity sites should not be ignored in selection processes. They may be especially vulnerable to the loss of important ecosystem goods and services that benefit local people. Therefore, in the long run **we should adopt the principle that no places should be excluded from consideration in the establishment of MPAs.**

11. The biggest gap in the global MPA system is on the high seas, beyond the limits of national jurisdiction. There is a pressing need for countries to support ongoing efforts to develop an implementing agreement for Biodiversity Protection Beyond National Jurisdiction that includes MPAs. **Given current constraints on creating MPAs beyond national jurisdiction, however, a greater percent coverage (i.e 24%⁴ vs. 10%) within Exclusive Economic Zones (EEZs) will be needed to meet the 10% of the overall ocean by 2020 goal.** Such a goal would bring coverage of MPAs in EEZs up to levels commensurate with those needed to achieve multiple goals. High Seas MPAs will be needed to meet larger targets (e.g. 30% by 2030) and achieve full ocean biodiversity representation and support for ecosystem functioning. In the interim, we should consider closing parts of the high seas that are most vulnerable to overfishing and habitat destruction, including places that are not under the mandate of existing Regional Fisheries Management Organisations (as agreed under UNGA Resolution 61/105 of 2006), and establishing representative networks of MPAs protected from other damaging activities and sources of harm, including deep sea mining, marine litter and noise.

12) MPAs and MPA networks will only be fully effective when embedded within a holistic framework of integrated ocean and coastal management, incorporated into wider marine spatial planning and applying the Ecosystem Approach to ensure that human activities are well managed over all of the seas.

It should be recognized that **MPAs are a necessary but not sufficient part of overall sustainable management of seas and oceans.** For example, poor water quality, runoff, and other impacts, can prevent effective ecological recovery or lead to declines. Effective management, based on sound ecological principles and practices is required outside of MPAs. Similarly, climate change effects will have an

⁴ 42% of oceans and seas lie within Exclusive Economic Zones. Therefore achieving 10% of the oceans as a whole within MPAs would require $(10/42) \times 100 = 24\%$ coverage of EEZs.

increasing influence on what happens in and around MPAs and we need to develop MPA design and implementation strategies to accommodate to climate change.

Consensus on MPA Governance (13-24)

13. MPAs must have the governance capacity to influence the behavior of people to build on common interests, address conflicts and reduce use impacts to levels that promote the effective achievement of conservation objectives.

14. MPA governance must ensure effectiveness in achieving conservation objectives and equity in fairly distributing the costs and benefits of effectiveness.

15. Recognize that “diversity is the key to resilience, both of species in ecosystems and incentives in governance systems”, i.e. a combination of incentives is crucial for effective and equitable governance⁵. Governance frameworks need to be appropriate to the specific MPA context and the incentives should be integrated with each other. MPA governance cannot be based solely on a single governance approach, i.e. an MPA that is solely reliant on local participation (community-based), economic incentives (market-based) or legal regulation (law-based) will not be sustainably effective.

16. Legal incentives and the capacity to enforce them are particularly important to achieve both effectiveness and equity, and sufficient political will to agree and apply appropriate laws and regulations is essential for MPAs. They are the elements that reinforce the governance framework.

17. The existence of regulations, and awareness of them, can be sufficient to promote the willingness of the majority of MPA users to comply and cooperate.

18. To address the activities of a non-compliant minority, enforcement must proactively consider three elements in order to promote effectiveness and equity:

- a. The capacity to **detect** illegal activities in a timely manner through surveillance, patrols, etc.
- b. The capacity to identify and, where necessary, charge and even **detain** people engaged in illegal activities in a timely manner, including gaining sufficient evidence,
- c. The capacity to apply sufficient penalties (warnings, fines, license restrictions, confiscations, etc.) in a timely manner to actually **deter** them and others who may engage in illegal activity.

19. Enforcement capacity must be applied proportionally, justly and equitably, recognizing that enforcement needs may increase over time as the value of the protected natural resources builds up, thereby increasing the potential rewards from poaching.

20. Involve stakeholders, including local communities⁶, in the designation and governance of MPAs in order to ensure local stewardship, the protection/creation of livelihoods, effectiveness and sustainability.

⁵ Drawing on all five categories: economic incentives, interpretative incentives, knowledge incentives, legal incentives and participative incentives. After Jones, P.J.S. (2014) Governing Marine Protected Areas: resilience through diversity. Routledge.

⁶ Without community support, implementation and enforcement will be difficult; people need to be aware of the problems and the role of MPAs in addressing them before the solution is forced upon them. Benefiting from and partnering with communities, their knowledge and their practices, is beneficial. Trust built among community members can be built upon when initiating or implementing MPAs.

21. Monitoring and reporting on the degree to which MPA objectives have been achieved is critical for evaluation, adaptive management and demonstration of MPA effectiveness.

22. Recognize that MPA governance frameworks take time to evolve on an adaptive “learning by doing” basis.⁷

23. Cross-jurisdictional coordination between different sectoral agencies is important to ensure integration between conservation, fisheries, management, land-based pollution control, development planning, etc. Hierarchical obligations, and the political will to fulfil them, can be particularly important to achieve this.

24. As MPAs are scaled up from individual designations to networks, governance frameworks also need to be scaled up to promote coordination and integration, including transboundary integration where appropriate.

Consensus on MPA Sustainable Financing (25 - 34)

25. MPAs are critical to sustainable development. MPAs are a powerful mechanism for delivering sustainable development objectives for coastal marine ecosystems at varying scales, including food security, livelihoods, climate change and disaster risk reduction.

Expenditures to meet the SDG 14 Target 5 should be recognised as part of wider investment needs for achieving sustainable development in the context of the SDGs.

26. Meeting SDG 14 Target 5 will deliver substantial benefits to people and the global economy. It is widely established through numerous studies and peer-reviewed publications that the social and economic benefits of establishing and operating MPAs sizeably exceed their costs, from 3:1 for 10% protection, up to 20:1 for 30% protection⁸. Governments need to raise awareness of this very positive ‘rate of return’ on investing in MPAs at all levels, to promote and catalyse action on MPAs at local, municipal, provincial and national levels.

27. There is a need to increase investments substantially to bridge financing gaps. Current funding of MPAs is insufficient and not sustainable. Funding to cover transition costs, monitoring etc., needs to be increased substantially.

28. MPAs contribute to climate change adaptation and to some extent mitigation. Investing in MPAs can reduce community, national and global vulnerability by increasing resilience and reducing risk. It can support adaptation efforts against climate-related impacts at various scales, and contribute somewhat to climate change mitigation via the maintenance of healthy oceans.

Investments in MPAs can provide direct adaption benefits including coastal protection (e.g. from the protection or restoration of mangroves and coral reefs). These investments will enhance resilience by protecting food security and securing livelihoods options. This will be increasingly important in helping communities adapt to climate change and in minimising damages and losses.

⁷ Thinking long term is an opportunity, not a problem. Starting simple, with existing resources and a framework for the future, expanding via adaptive management, is a good thing.

⁸ Brander, L., Baulcomb, C., van der Lelij, J. A. C., Eppink, F., McVittie, A., Nijsten, L., van Beukering, P. (2015) The benefits to people of expanding Marine Protected Areas. VU University, Amsterdam, The Netherlands.

29. Investments in MPAs can strengthen the provision of marine ecosystem services on which vulnerable communities depend. As marine biodiversity loss disproportionately affects vulnerable populations, investments in MPAs, by helping to protect biodiversity, will help secure the long-term provisioning of key services and access to essential marine resources that support food security, economic opportunities and human well-being of the world's income poor populations.

30. MPAs provide insurance and protection from risk. MPAs as the 'conservative' part of our ocean portfolio serve as insurance against our mistakes in management. Investments in MPAs can provide insurance against uncertain and accelerating future marine ecosystem change, and maintain and enhance future development options. Investments made now will reduce future costs and preserve opportunities for current and future generations.

31. Enhancing synergies and promoting alignments across sectoral policies are needed for effective implementation of SDG 14 Target 5 and can be a major source of resource mobilization. Creating and implementing mutually supportive policies and activities across sectors of the economy, and increasing efforts to manage trade-offs are all important steps for achieving SDG 14, Target 5, which will deliver co-benefits and develop cost-effective pathways towards a sustainable society. This will help to identify co-funding opportunities and to secure contributions to meeting the SDG 14, Target 5 from a wide range of sources across economies and societies.

It is important to mainstream MPAs into wider policy agendas, plans and budgets. This will offer significant opportunities for more efficient policy-making, and thereby generate co-funding.

32. Countries need to invest in institutions and policy frameworks, incentives and economic instruments for MPA implementation. Well-designed institutions and effective policy frameworks are a prerequisite for effective and efficient MPA financing. A "bottom-up" assessment of investment needs to be aligned with domestic and international sources of funding. Investing in policy frameworks and general enabling conditions is critical for MPA action in many countries, and especially in less developed parts of Africa, Asia, Latin America and the Caribbean, and Eastern Europe.

Actions to raise awareness, build capacity, develop the knowledge base and establish the necessary legal structures, institutions and governance frameworks are necessary for effective delivery of SDG 14 Target 5 as well as contributing directly to other SDG Targets.

33. Design and implementation of appropriate economic and policy instruments is essential for meeting SDG 14 Target 5. Achieving SDG 14 Target 5 at least-cost is crucial and will require more efficient use of public budgets, together with the application of a wider range of economic instruments and incentives. It will also require involving stakeholders, the use of modern technology, invoking social norms and cultural sanctions and encouraging integrated regional use of existing funding.

Much can be gained by phasing-out perverse incentives and unsustainable practices, and extending good marine planning and the development of sound fiscal policies. The elimination of environmentally harmful and market-distorting subsidies such as capacity-enhancing fisheries subsidies, if well managed, would reduce negative impacts on marine biodiversity while freeing up resources that could be used for other investments in marine protection.

34. MPA financing should be sought from a wide variety of sources. Revenue from MPA management (user fees, fines, taxes, etc.) should, to the maximum extent possible, be reinvested into MPA management activities to ensure near and longer-term financial sustainability of MPAs.

Transnational MPAs should be considered as they can add value such as size and resilience, increased diversity of funding base, and make use of each countries' comparative advantages (monitoring, enforcement, etc.).

Increased focus on developing innovative partnerships between a wide range of actors – local and national government, civil society, NGOs, UN, multi-lateral funds, IFIs, academia, and the private sector is needed.

A significant fraction of the private sector, from tourism to fisheries to aquaculture, utilizes and relies on healthy marine ecosystems in their business operations. For long-term MPA sustainability, these private sector stakeholders need to be effectively engaged in MPA design, financing, cost recovery and management.

There are a wide range of potential public and private sources of funding for MPAs, from multi-lateral funds (GEF, GCF, and other Adaptation Funds) to bi-laterals to foundations. Countries need to increase awareness and knowledge of these funds (through mechanisms such as the Biodiversity Finance Initiative (www.biodiversityfinance.net) and need capacity building assistance to enable them to access, combine and sequence necessary financing from all available sources⁹.

The overall envelope for MPA financing almost certainly remains below the level required to achieve 10x20. In addition, country demand for MPA financing from financial mechanisms such as the GEF has been very modest in comparison to that for terrestrial protected areas. As such, if use of such funds towards 10x20 is to be optimized, beneficiary countries need to increase prioritization of MPAs in their internal dialogue on accessing such funding, and donor countries need to increase the prioritization and level of MPA financing support for developing countries going forward.

⁹ The Convention on Biological Diversity's High-Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020 has issued detailed reports of how to finance the implementation of all 20 Aichi Targets, including 10% MPA coverage by 2020 (see <https://www.cbd.int/financial/hlp.shtml>).