

Area Based Management
Tools in Marine Areas Beyond
National Jurisdiction:

TIME TO BE **BOLD**,
VISIONARY AND
PRAGMATIC FOR THE
BENEFIT OF HUMANKIND
AND THE OCEAN

IUCN workshop on
“Area Based Management
Tools in Areas Beyond
National Jurisdiction”
(7 & 8 December 2021)



Ministry of Infrastructure
and Water Management
of the Netherlands



Government Offices of Sweden
Ministry of the Environment and Energy

Area Based Management Tools in Marine Areas Beyond National Jurisdiction:

TIME TO BE **BOLD**, **VISIONARY** AND **PRAGMATIC** FOR THE BENEFIT OF HUMANKIND AND THE OCEAN

IUCN WORKSHOP ON
“AREA BASED MANAGEMENT TOOLS IN
AREAS BEYOND NATIONAL JURISDICTION”
(7 & 8 DECEMBER 2021)



The designation of geographical entities in this report, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN or other participating organisations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication do not necessarily reflect those of IUCN or other participating organisations. IUCN is pleased to acknowledge the support of its Framework Partners who provide core funding: the French Biodiversity Agency (OFB, Office Français de la Biodiversité) with additional support from the Swedish Ministry of Environment and the Dutch Ministry of Infrastructure and Water Management.

Published by: IUCN, Gland, Switzerland

Copyright: © 2022 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: Gjerde, K., Payne, C., Freestone, D., Pasquero, J., Ortuno Crespo, G., Epps, M., Chazot, C. and Spadone, A. (Editors). 2022. *Area-Based Management Tools in Marine Areas Beyond National Jurisdiction*, A Report of the IUCN Workshop 7-8 December 2021, Gland, Switzerland, IUCN Headquarters, Gland, Switzerland: IUCN. vi+XX pp.

Cover photo: © Shutterstock / Andrey Polivanov

Design and layout: Imre Sebestyén Jr. / Unit Graphics

Contents

- Foreword – A vision** **v**
- Executive Summary** **vi**
- Introduction** **5**
 - Background 6
 - State of play in treaty negotiations focused on ABMTs 6
 - Challenge of an interconnected ocean 7
 - Looking Ahead 8
- Getting a sense of place** **10**
 - Threats and challenges for governance of the Thermal Dome 10
 - Threats and Challenges in the Sargasso Sea 11
- Exploring Tools and Technologies** **13**
 - Systematic approaches to designing networks of ABMTs 13
 - Integrated assessments for conservation planning 15
 - Monitoring changing ocean environments from space: 16
 - Monitoring human uses from space 17
- Making Progress in Practice** **18**
 - 1. Preparation of proposal under Article 17 18
 - 2. Consultation on proposals under Article 18 20
 - 3. Decision-making under Article 19 [Alt 1] 22
 - 4. Implementation, monitoring and review Articles 20 and 21: 23
- Conclusions:** **26**
- Annex A: List of Participants** **28**
- Annex B: Agenda** **31**
- Annex C: Questions for Breakout Groups** **34**



Foreword – A vision

As we approach the upcoming 4th and last planned negotiating session for the new UN Agreement on marine biodiversity beyond national jurisdiction, it is a crucial time to ask ourselves: What is the future we want to see in terms of global ocean health, productivity and resilience to climate change?

How might this vision affect the future BBNJ Agreement?

UN Secretary General António Guterres, in the Foreword to the Second World Ocean

Assessment, urged: “To ensure sustainability, we must work together to improve integrated ocean management, including through joint research, capacity development and the sharing of data, information and technology.”

How can we achieve this for our common ocean beyond national boundaries?

For this purpose, the BBNJ Agreement will need to be bold, visionary and also pragmatic.

Bold: Adopt ambitious goals and objectives focused on securing ocean health and environmental integrity for the benefit of humankind and the ocean.

Visionary: Manage the global ocean as a shared commons based on principles of equity, informed decision-making, shared responsibility, and accountability.

Pragmatic: Adopt systematic, strategic and collaborative processes to overcome conflicts and competition while building nimble and adaptive institutions ready to manage a rapidly changing ocean.

Executive Summary

This report captures the main outcomes from the workshop, “Area-Based Management Tools in Areas Beyond National Jurisdiction” (7-8 December 2021). It is intended to inform the fourth and final intergovernmental conference (IGC4) for an international legally binding instrument for the conservation and sustainable use of marine biodiversity beyond national jurisdiction (BBNJ Agreement) scheduled for 7-18 March 2022 at UN headquarters in New York.

To explore the practical implications of the draft BBNJ Agreement’s provisions for establishing area-based management tools (ABMTs), the workshop focused on the two specific areas: the Thermal Dome¹ and the Sargasso Sea, and the activities planned under the SARGADOM project².

The workshop was organized by IUCN, with the support of the French Biodiversity Agency (OFB, Office Français de la Biodiversité) with additional support from the Swedish Ministry of Environment and the Dutch Ministry of Infrastructure and Water Management.

The workshop built on the 2019 IUCN Workshop report³ on ABMTs in ABNJ as well as the revised draft text⁴ of the BBNJ Agreement. The 2021 workshop discussions recognized the Global Ocean as a “commons” whose health is a shared interest of all humanity and highlighted

the corresponding importance of enabling the international community to work together for the benefit of humankind and the ocean.

The workshop reminded participants of the history and importance of the BBNJ negotiations, the intricate linkages between the remote ocean and human and planetary wellbeing, key challenges to marine biodiversity and institutions in the Thermal Dome and the Sargasso Sea, and the availability of innovative tools to improve management of BBNJ. These served as the foundation for considering how the BBNJ Agreement might be implemented to advance ecosystem-based management in the two regions of interest. This resulted in several key messages to inform the upcoming BBNJ Agreement negotiations at IGC4.

Importance of BBNJ negotiations: After 20 years of deliberations, the upcoming IGC4 in March 2022 is an exciting opportunity to finalize negotiations for a new UN Agreement on BBNJ. But there will be significant challenges. Negotiators will be tasked with finding a delicate balance: an ambitious agreement that empowers the Conference of Parties (COP) and protects marine biodiversity, while also accommodating and respecting the rights and interests of all States. If we are to

1 The report adopts the terminology “Thermal Dome” to refer to an oceanic feature caused by the interaction between wind and ocean current systems in the eastern tropical Pacific that has high biological productivity and that oceanographers have named “Costa Rica Dome”, also referenced as the “Costa Rica Thermal Dome”.

2 The SARGADOM Project is supported by the French Facility for Global Environment (FFEM), in collaboration with the University of Brest (UBO) and MarViva, the Sargasso Sea Commission and the French Biodiversity Agency, (OFB). The SARGADOM project will conduct integrated socio-ecological assessments to identify conservation needs and options in the two project areas: the high seas of the Thermal Dome (Eastern Tropical Pacific) and the Sargasso Sea (Western Atlantic). Read more: [FFEM_LAUNCH_Sargasso_Sea_presentation_FS_updates_compressed.pdf \(sargassoseacommission.org\)](#)

3 detailed in the 2019 Workshop report and [Summary – 4-pager](#)

4 <https://undocs.org/en/a/conf.232/2020/3>

move forward, concerns that a BBNJ Agreement could undermine existing instruments and bodies should be reframed as a way to strengthen existing organizations through enhanced cooperation and collaboration.

Connectivity: All parts of the ocean are inter-linked: nutrients, carbon, and organisms of all sizes move from the surface down to and up from the deep ocean and horizontally through wind, surface currents and gyres as well as passive and active movements of plants and animals. Thus, there is clear ecological connectivity between ABNJ and coastal zones. Connectivity also exists between the ocean and the atmosphere through the exchange of CO₂, water vapour and ocean use by seabirds and surface dwellers.

Threats affecting the ocean, including the deep sea and seabed, include climate change (warming, acidification, deoxygenation), fishing, oil and gas, mining, plastics, noise and other forms of pollution. While some scientific uncertainty remains with regard to the details of the interactions (positive and negative) of those threats, we know more than enough to know that climate-smart measures to build resilience, safeguard climate refugia and accommodate the redistribution of species and features over time, are needed now. Climate change must be taken into consideration not just when designing MPAs and other ABMTs, but by the suite of measures and procedures agreed upon in the BBNJ context as a whole.

The Thermal Dome: Given its unique biodiversity features and strategic location, the Thermal Dome off the Pacific Coast of Central America attracts great interest from the fisheries, shipping, and conservation communities. It is a highly productive area supporting important yellowfin tuna fisheries. Four to six percent of the global

maritime traffic overlaps with an area of high cetacean density. The Thermal Dome poses particular problems to manage and conserve as it is a complex area that both shifts in space over the seasons and straddles multiple countries' exclusive economic zones (EEZs) as well as ABNJ. Furthermore, countries in the region have limited research capacity and limited access to data from ocean users that could be used to improve management of the area. At the regional level a form of inter-institutional cooperation exists but this needs to be strengthened to include all relevant actors and institutions.

The Sargasso Sea: The Sargasso Sea in the Western Central Atlantic has seen a substantial increase in fishing activities in the past three years. No non-tuna regional fishery management body is in place in the region, although tuna and tuna-like species are managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT). Perhaps due to increased capacity in the Panama Canal, there has been a significant increase of commercial vessels through the Sargasso Sea in the past decade. Future plans for seabed mining are an increasing concern due to the potential for currents to carry sediment plumes from the Mid-Atlantic Ridge (where three exploration sites already exist) into the Sargasso Sea. The Sargasso Sea Commission, in cooperation with the ten governmental Signatories to the Hamilton Declaration⁵, is in a position to support and promote marine scientific research and to attend various international meetings as observers, but it currently lacks any form of management mandate.

Systematic approaches to designing networks of ABMT: The Sargasso Sea and Thermal Dome provide useful cases to test how the BBNJ Agreement will advance coherent application of ABMTs including MPAs suitable to conserving

⁵ On March 11, 2014, governments came together in Bermuda to sign the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea ([Hamilton Declaration](#)). There are now 10 Government Signatories.

large dynamic features, ecosystem functions and marine species across a range of scales, both temporal and spatial. The SARGADOM project is designed to enable the systematic collection of information for an “ecosystem diagnostic analysis”. This analysis can then build on widely accepted site and network design criteria (representativity, competitiveness, replication and adequacy) in considering the types of ABMTs including MPAs that may be appropriate. However, challenges persist due in part to poor data availability in many regions, making the precautionary approach critical to success.

Integrated assessments for conservation planning: Assessment of global and regional drivers, pressures, state, impacts and responses (DSPIR) can enable a transdisciplinary and systematic view of the interactions between ecosystems and society to support action, especially when it also considers activities and actors and their effect on human and oceanic wellbeing. The SARGDOM assessments will cover environmental degradation issues such as biodiversity loss, water quality degradation, habitat loss as well as cumulative pressures and impacts. Coupling such a socio-economic assessment with an

ecosystem assessment will, it is hoped, better link natural systems with human activities to underpin informed decision-making.

The **Global Fishing Watch Marine Manager platform** is a new important source of data for social-economic assessments. The Marine Manager platform combines publicly available human activity data (e.g., AIS fishing vessel movements from Global Fishing Watch), oceanographic data and biological data to inform ecosystem-based management and marine area protection. Together these products can provide for example, habitat analysis for highly migratory species, tuna spatial catch forecasting, by-catch mitigation and compliance with MPA/fishery closed areas.

The **COVERAGE project**, supported by NASA, is a pilot effort currently focused on the Sargasso Sea to demonstrate how open-access earth observations from space (e.g., sea surface temperature, salinity, ocean color / surface productivity, precipitation, etc.) can be combined with physical modelling and in situ data sets to enable decision support for high seas conservation and other management applications.

Key messages to inform the BBNJ deliberations:

1. Urgency to finalize in 2022: Considering the urgent need to protect global ocean health, productivity and resilience and safeguard marine life beyond national boundaries, it is crucial that all States and other stakeholders cooperate to conclude an ambitious BBNJ Agreement as soon as possible. Should IGC4 not be able to adopt the final text of the BBNJ Agreement, any subsequent IGC session should take place in 2022.

2. Equity is an enabling condition for unlocking benefits for humankind and the ocean

beyond borders. Inequality is a pervasive concern including with regards to access to data, information, technology, resources as well as capacity for marine scientific research and management, especially regarding BBNJ. Capacity, technology, skills and information transfer and data sharing are urgently needed to address knowledge inequities and gaps.

3. Time for climate-smart management:

Climate-smart measures are needed now to stem cumulative effects, build resilience, protect climate refugia and accommodate

the redistribution of species and ecosystems over time. The management of the ocean should thus be based on the best climate science and reflect that all parts of the ocean are interconnected. In addition to MPAs, the BBNJ Agreement could enable the evolution of innovative ABMTs like dynamic closures and migratory corridors, based on systematic assessments, cross-sectoral spatial planning, monitoring and adaptive management to respond to monitoring results.

4. Breaking silos and fostering engagement: To foster cross-sectoral engagement, the BBNJ Agreement can play an essential role by facilitating integrated planning and management. The BBNJ Agreement can, for example, provide the missing platform to convene relevant stakeholders in an inclusive and transparent manner, and channel collective ambition. It will complement the mandates of existing organizations by delivering the transformative change needed to safeguard ocean life amidst a rapidly changing climate.

5. Need for systematic approaches: Systematic approaches will be essential in the design and effectiveness of climate-smart, representative and connected networks of MPAs and other ABMTs. Coupling a socio-economic assessment with an ecosystem diagnostic assessment can better link natural systems with human activities. At the same time, good management requires good information and shared datasets. For this purpose, obligations to exchange data via the future clearinghouse mechanism in the BBNJ Agreement will be key.

6. Mechanisms to facilitate a proposal:

Expertly facilitated multi-stakeholder deliberations will be needed to address differing interests, build knowledge and trust, encourage early collaboration to enable access to and exchange of data, and encourage as well as build support for buy-in to conservation measures. States may wish to consider establishing or designating a lead institution/s with dedicated funding and specially trained facilitators to help coordinate the work with stakeholders, including coastal States, other States, sectoral bodies, industry, scientists and other experts, Indigenous Communities, and civil society.

7. Powers of the COP: To enable timely action, the COP will need a clear mandate to adopt measures even where there are other bodies, as these other bodies may be slow, reluctant, blocked by one or two States parties, and/or apply different definitions of precaution and “sustainability”. While consensus-based decision-making approach is the optimal objective, a pragmatic mechanism for majority-voting procedure is needed to ensure timely progress.

8. Effective financial support is the linchpin of progress: Funds will be needed at multiple stages: to acquire scientific and indigenous and local knowledge, collect relevant commercial data, convene stakeholders, and support consultative processes. Cost-benefit assessments, while useful for some purposes, are still poor at including the costs of no-action (biodiversity loss, fishing opportunities loss, etc.). A robust financial mechanism for ABMTs will be vital to maintain momentum and ambition throughout the proposal process and support implementation.



Introduction

This report captures the main outcomes of the workshop entitled “Area-Based Management Tools in Marine Areas Beyond National Jurisdiction” (ABMTs in ABNJ) that took place on 7-8 December 2021 virtually and was organized from IUCN headquarters in Gland, Switzerland. This report of the IUCN workshop is offered for the consideration of delegations preparing for the fourth and last planned intergovernmental conference (IGC4) for an international legally binding instrument for the conservation and sustainable use of marine biodiversity beyond national jurisdiction (BBNJ Agreement) scheduled for 7-18 March 2022, at UN headquarters in New York.

The IUCN workshop was the fourth in a series of workshops to inform the on-going UN BBNJ negotiations with the support of the Government of France via the French Biodiversity Agency (OFB, Office français de la biodiversité) since 2017, with additional support from the Swedish Ministry of Environment and the Dutch Ministry of Infrastructure and Water Management.

Noting that marine biodiversity in ABNJ will be at the top of political agendas in 2022, including the One Ocean Summit in Brest (9 to 11 February 2022), IGC4 in March, the Our Ocean Conference in Palau (13 to 14 April 2022) and the UN Ocean Conference in Lisbon (27 June to 1 July 2022), the 4th IUCN workshop brought together a wide audience (government representatives, scientists, engineers, legal experts and the conservation community) to assess the state of play, deepen discussions on the current framework for adopting ABMT as reflected in the draft of BBNJ Agreement (as of November 2019), and plan for possible next steps.

The 4th IUCN ABMT in ABNJ workshop was held in partnership with the SARGADOM (Sargasso Sea/Thermal Dome) project, which is supported by the French Facility for Global Environment (FFEM), in collaboration with MarViva, the Sargasso Sea Commission, the University of Brest (UBO) and the French Biodiversity Agency (OFB). The objective of the SARGADOM project is to develop and test methodologies to assess needs and means for conservation strategies in the high seas with the Thermal Dome (East Central Pacific) and the Sargasso Sea (West Central Atlantic) as research subjects. It is hoped that the results will contribute to BBNJ negotiations and implementation by providing lessons learned on integrated socio-ecological assessment and hybrid governance for high seas conservation consistent with the UN Convention on the Law of the Sea and its implementing agreements, as part of a strategy based on an ecosystem approach.

The specific objective of this workshop was to identify key steps (and challenges) for establishing ABMTs, with a particular focus on marine protected areas (MPAs), under the BBNJ Agreement, using the two areas of the Sargasso Sea and the Thermal Dome as concrete case studies for establishing a range of possible ABMTs including MPAs. For these purposes, the workshop introduced recent advances in ABMT science and knowledge now available to underpin action and inform international discussions. It further explored key questions related to proposals, consultations, decision-making and implementation, monitoring and review under the draft BBNJ Agreement text Articles 17- 21.

Background

The workshop built on the key findings of the prior 2019 IUCN workshop on ABMTs in ABNJ detailed in the [Workshop report](#) (see also [Summary – 4-pager](#)) as well as the [ABMT Flowchart developed by IGC President Rena Lee](#) based on the [revised draft text](#) of the BBNJ Agreement.

The 2019 workshop identified 10 enabling conditions to future-proof the BBNJ Agreement by among other things, recognizing that the Global Ocean is a “commons” whose health is a common interest of all humanity and the corresponding importance of enabling all States to act individually and collectively to safeguard marine biodiversity and enhance ocean resilience on behalf of present and future generations.

The 2019 workshop further elaborated eight considerations highlighting the need for a politically ambitious, precautionary, and adaptive measures to respond to the adverse effects of activities and technologies we know of today as well as those that may emerge tomorrow. With respect to ABMTs, the 2019 workshop report stressed the need to include specific obligations to conserve marine biodiversity as well as to ensure that uses affecting BBNJ are sustainable. Networks of MPAs dedicated to long-term conservation will need to be complemented by measures to conserve ecosystem integrity, protect vulnerable species as well as habitats that move across space and time. This entails a flexible portfolio of measures for dynamic, nimble and ecosystem-based management of human activities affecting BBNJ, taking into account airspace as well as vertical and horizontal connectivities. Taken together, such measures should be seen as strengthening and not undermining the effectiveness of measures adopted by existing instruments and bodies.

State of play in treaty negotiations focused on ABMTs

Kristina M. Gjerde, Senior High Seas Advisor, IUCN

The 20-year journey towards a new legally binding agreement for the conservation and sustainable use of marine biodiversity in areas beyond the limits of national jurisdiction (BBNJ Agreement) evolved from the need to advance ecosystem-based management and MPA systems throughout the global ocean as well as the desire of developing countries to share equitably in efforts to utilize a recently accessible resource in ABNJ – marine genetic resources. Advancing the BBNJ Agreement requires addressing all four elements of package deal in an integrated way including environmental impact assessments, marine genetic resources and capacity building and technology transfer, as well as the cross-cutting issues such as institutional structure and financial support.

Multiple types of sectoral ABMTs are already available. These include Vulnerable Marine Ecosystems (VMEs) adopted by regional fisheries management organizations (RFMOs) to protect sensitive bottom habitats from deep sea bottom contact fishing on the high seas; Special Areas and Particularly Sensitive Sea Areas (PSSAs) that can be adopted by the International Maritime Organization (IMO) to reduce international discharges and other negative shipping impacts, and Areas of Particular Environmental Interest (APEIs) as representative no-mining sites in the context of deep-sea mining, designated by the International Seabed Authority (ISA).

However, none of these sectoral tools enable comprehensive ecosystem-based management, consider cumulative effects, or address connectivities across ecosystems: each organization has a different set of criteria, geographic remit,

membership and evidentiary demands and its measures address different threats. As a result, very little progress has been made despite the existing legal mandates and agreements to protect biodiversity in the marine environment, avoid significant harmful effects, and prevent pollution (e.g. few regional MPAs; no PSSA in High Seas, only two Special Areas designated; APEIs/VMEs are subject to change). This situation of varying criteria, membership and evidentiary demands underscores the need for a more systematic approach to adopting future MPAs and associated ABMTs.

Confusion between sectoral ABMTs and MPAs might be reduced by requiring that MPAs be specifically dedicated and managed to achieve the long-term conservation of nature, as reflected in the IUCN definition and categories of MPAs⁶, while recognizing that other ABMTs may also advance sustainable use of marine biodiversity. This distinction is particularly important in the context of climate change as scientific studies have shown that the higher levels of protection in MPAs are more effective in building ecological and species resilience. Such MPAs can provide multiple climate benefits including enhancing natural carbon storage, buffering acidification and preventing release of carbon stored in seafloor sediments.

In addition, it is hoped the BBNJ Agreement can help redress two challenges experienced during the early years of the Sargasso Sea Project that started in 2010⁷, i) lack of the knowledge base upon which to implement ecosystem-based approaches; and ii) reluctance to apply precaution as it can come with an economic cost.

Cross-sectoral and multistakeholder regional action plans building on integrated assessments

and systematic conservation planning as envisaged in the SARGADOM project and further explored in this workshop, could help overcome these challenges as well as address future challenges such as connectivity and climate change. Such plans could feature innovative ABMTs like dynamic closures, migratory corridors, systematic planning, and adaptive management measures that can react to monitoring results.

Looking into the future, integrating the many forms of environmental knowledge into decision-making will be increasingly essential for sectoral and regional organizations as well as the BBNJ Agreement. This is especially true in our interconnected global ocean and shared responsibility for global ocean health. Independent science bodies will be critical, however there is a clear need to improve connection between science and management, to broaden access to data, build capacity and ensure application of the best available science and knowledge.

Challenge of an interconnected ocean

Anna Metaxas, PhD., Department of Oceanography, Dalhousie University

When considering the state of BBNJ science, climate change, connectivity and biodiversity conservation it is important to recognize that marine BBNJ mainly covers the deep sea (> 200 m in depth). While the surface waters of the high seas are relatively better studied, scientific knowledge about the deep sea (the 66% of Earth's surface and 90% of the ocean volume below 200 m) remains limited. Importantly, the deep seabed is highly diverse, although how high biodiversity actually is in the deep ocean is still

6 [Guidelines for applying the IUCN protected area management categories to marine protected areas](#)

7 See Freestone and Gjerde, [Lessons from the Sargasso Sea](#).

unknown. However, new species are continuously discovered.

All parts of the ocean are connected, as nutrients, carbon, and organisms of all sizes move from the surface into and up from the deep ocean. The ocean is also connected horizontally, through wind, surface currents and gyres as well as the movements of plants and animals. Thus, there is a clear ecological connection between ABNJ and coastal zones). Connectivity also exists between the ocean and the atmosphere through the exchange of CO₂ and the ocean use by seabirds.

Deep water ecosystems provide many services such as provisioning, regulating and supporting climate regulation, including carbon capture. These are vital to the health of the global ocean and all of humanity.

Threats affecting the deep ocean include climate change (warming, acidification, deoxygenation), fishing, oil and gas, mining and other forms of pollution. While scientific uncertainty remains with regard to the interactions (positive and negative) of those threats, climate-smart measures to build resilience, safeguard climate refugia and accommodate the redistribution of species and features over time, are needed now. Inequality remains an issue with regards to marine scientific research capacity, especially for BBNJ. Most papers come from the Global North raising considerable equity-related considerations. Capacity transfer is urgently needed to address knowledge inequities and gaps.

In a nutshell, it was explained that:

- Knowledge is limited but not limiting
- The health of our planet depends on the high seas and deep-sea ecosystems
- Deep seas are connected to surface and coasts

- Climate change is impacting deep-sea ecosystems, and the effects will accelerate
- Spatial protection and management must be climate smart

Discussing the composition of the various scientific bodies, it was explained that different models exist (FAO, IMO, ISA, CCALMR, CBD) and whether representatives are elected or appointed does not matter as long as they sit in the respective committees and groups based on their expertise, which should be unbiased and unaffected by political motivations. The benefits of engaging indigenous culture into the process was also stressed. For example, it will help us to reflect upon the central role and value of other creatures in the vast web of life.

Looking Ahead

The upcoming 4th IGC scheduled for March 2022 will be an exciting opportunity to consolidate progress made since the last IGC in August 2019. But there will be some significant challenges.

On the negotiating process, whilst momentum was maintained through specific initiatives (e.g. [BBNJ Informal Intersessional Dialogues](#) (also known as the High Seas Treaty Dialogues) hosted by the governments of Belgium, Monaco and Costa Rica in collaboration with the High Seas Alliance and the International Center for Dialogue and Peacebuilding), more progress could have been achieved during the pandemic. Yet, the need to meet in person to advance such complex diplomatic negotiations was also highlighted.

On a pragmatic note, as the draft text is still far from being finalized, a fifth session may be necessary. However, this fifth meeting should happen in 2022. Otherwise, the BBNJ negotiating process risks losing momentum and credibility vis-à-vis

leaders, press, public etc. Other challenges will be faced, including:

- Changes in delegation compositions, as many will have shifted portfolios or retired.
- There are still some countries that have remained silent during this pause. It must be assumed that these have not changed their position throughout the process. This means that they could refuse to ratify the treaty, once finalized;

Negotiators will need to find a delicate balance: an ambitious text that empowers the Conference of Parties and protects biodiversity while also accommodating and respecting the rights and interests of all States. Broadly speaking, there are two main avenues:

- A detailed agreement that clearly sets out the principles and modalities for

conservation and sustainable use, which may take longer to finalize; or

- A general agreement that provides a framework and leaves it to the COP to elaborate modalities, which may need to overcome the reticence of some States to accord too much power to the COP.

Concerns that a BBNJ Agreement could undermine existing instruments and bodies should be reframed in terms of collaboration and cooperation, focusing on the mutual benefits of strengthening existing organizations. Today, many sectoral and regional bodies have a mandate to establish specific rules, but these do not apply to States that are not party to the relevant agreements and implementation varies. Balance should be sought here too, as both global-scale and regional-scale cooperation have particular strengths to contribute.

Getting a sense of place

Reminder: To ground workshop discussions in real situations based on real places, the workshop focused on the two areas of interest for the SARGADOM project, the Thermal Dome and the Sargasso Sea.

Threats and challenges for governance of the Thermal Dome

Jorge Jimenez, PhD., MarViva Foundation

Given its unique biodiversity features and strategic location, the Thermal Dome off the Pacific Coast of Central America attracts great interest from the fisheries, shipping, and conservation communities. It is a highly productive area from a biological perspective, making it very attractive for fisheries such as yellowfin tuna, which is caught by fishing vessels from within and outside the region. Some species are overexploited, but lack of data and scientific evidence can hamper good management efforts of the area. The Dome is also criss-crossed by major shipping routes, with 4-6% of the global maritime traffic overlapping with an area of high cetacean density at the Dome.

Making it even more complex to manage and protect its marine resources, the Thermal Dome naturally expands and contracts over the year, and several jurisdictional zones are included within the Thermal Dome area including different countries' exclusive economic zones (EEZs) as well as ABNJ. This creates a major challenge for governance and coordination since management is fragmented with different agencies regulating specific sectors or aspects of the area. At the regional level a form of inter-institutional cooperation exists but needs to be strengthened by, e.g.,

also engaging global institutions like IMO, the UN Food and Agriculture Organization (FAO) and the Convention on Migratory Species (CMS), among others.

A multilateral approach is essential, but a regional focus is equally crucial with regard to the countries whose jurisdiction cover (part of) the area, as they have an obvious interest in managing the Thermal Dome. Complex management measures are required to manage the dynamic nature of the Thermal Dome area, for instance taking into account both temporal and spatial change.

Equity is another important challenge, especially because countries in the region have limited research capacity, while some actors may hold valuable data that can be better transferred to improve management of the area. Furthermore, knowledge needs to be gathered regarding ecological aspects but also the economic importance of shipping and fisheries activities, as well as the interaction between these activities and their relevance for local economies. In this regard significant work has taken place over the past five years under a project coordinated by the Global Ocean Biodiversity Initiative funded by the German government (GOBI-IKI). The possible impacts of economic activities on local economies have to be comprehensively assessed too, for example riverine countries may suffer from extractive activities carried out by countries outside of the region.

Currently, there no ABMTs in the area, but the regional inter-institutional arrangements will certainly have a key role to play in the establishment of new ABMTs. The Thermal Dome case study can also be of advantage for other Domes around

the world by sharing best practices and replicating relevant measures that can be applicable also in other regional contexts.

There is an agreement already in place among Central American Countries to develop a vision and a workplan in the upcoming five years to enhance economic, social and ecological knowledge on the area as well as establish governance structures. The workplan, to be led by the Central American Commission for Environment and Development (CCAD)⁸, will also involve relevant international institutions such as the IMO and the Inter-American Tropical Tuna Commission (IATTC), albeit the latter have not been approached yet. In relation to the impact of navigation, scientific evidence is currently lacking and the workplan is expected to shed light on this subject too.

Threats and Challenges in the Sargasso Sea

**David Freestone, LL.D., Executive Secretary,
Sargasso Sea Commission**

When it comes to the governance of the Sargasso Sea in the Western Central Atlantic there are significant governance gaps. The International Convention for the Conservation of Atlantic Tuna (ICCAT) has jurisdiction over tuna and tuna-like species throughout the Atlantic, but there is currently no regional fisheries regulating other species except the Northwest Atlantic Fisheries Organization (NAFO) whose area of competence only extends as far south as 35 °N- the northern edge of the Bermuda EEZ.

The Sargasso Sea Commission, through its governmental signatories and role as an observer in multiple international and regional bodies, is seeking to address at least some of these governance

gaps but it can only gather information and offer advice, as it lacks any form of management authority.

Key threats to the Sargasso Sea include:

- **Plastics:** There is no legal regime to control plastics waste, with the exception of specific cases (e.g., IMO regulating ship discharges).
- **Fisheries:** Whilst the Sargasso Sea is not as important a fishing ground as the Thermal Dome, fishing pressures have increased substantially in the past three years, and yet no specific management body (except for ICCAT) is in place in the region. There is a need to better regulate fishing activities as it will be difficult to displace them given the increasing fishing effort in the area.
- **The Sargasso Sea Secretariat** has commissioned more than 20 papers for submission to ICCAT, focused on developing ecosystem indicators, a smart approach towards integrating spatial ecological metrics into decision-making at the RFMO and potentially BBNJ. A similar approach could be adopted by MarViva with IATTC.
- **Shipping:** Partly due to increased capacity in the Panama Canal, there has been a significant increase of shipping vessels through the Sargasso Sea in the past decade. While it might be possible to reduce the number of vessels passing through the area, it has been difficult to meet the burden of showing harm (including possible impacts of underwater noise and ship strikes to large cetaceans) and IMO members fear the costs associated with potential restrictions. A Special Area designation to restrict certain discharges

8 [Sistema de la Integración Centroamericana \(SICA\)](#)

is another possibility, but it would be challenging if Bermuda has to bear the burden of port reception facilities for the whole area. Data on operational discharges of ballast water is not available in this region and beyond, a problem to bear in mind within context of BBNJ process as it is a real vector of invasive species worldwide.

- Seabed mining: Russia, France and Poland have been granted contracts for exploration in the area of the Mid-Atlantic Ridge which is part of the wider Sargasso Sea. Even though both the Sargasso Sea and the Mid-Atlantic Ridge have been “described” as ecologically or biologically significant areas (EBSAs) by the Convention on Biological Diversity (CBD) and could be vulnerable to direct and indirect impacts of deep seabed mining (such as sediment plumes), there are no formal mechanisms for consultation through the ISA prior to the grant of 15-year exploration contracts or prior to testing of mining equipment. The ISA is in the process of developing regulations to transition to seabed mineral exploitation with as yet unknown environmental goals or standards or consultation processes f.
- The Sargasso Sea is also an important habitat for migratory species such as anguillid eels and sea turtles. Developing international cooperation for the protection of migratory species such as the anguillid eel is however another

challenge, mainly given the fact that not all countries neighboring the Sargasso Sea are Contracting Parties to CMS (e.g., Canada and the USA).

Assessment of the cumulative effects of all these threats is needed, especially given that the effects of such activities will most likely be exacerbated by climate change. This is something that the SARGADOM project can start to do, building on a baseline review produced in 2011. However, the BBNJ Agreement has an important role to facilitating such processes.

In relation to developing proposals for measures such as PSSA through IMO, it was explained that in the early days of the Sargasso Sea project, a number of information sessions were held at the IMO. At the time, there was support but also quiet opposition. Pursuing a management measure in an international forum does require one or more State champions. It is hoped with through the SARGADOM project, the PSSA designation effort can be reinvigorated and more formally pursued at IMO.

A question was asked about the adequacy of the current greenhouse gas (GHG) limitation for shipping under MARPOL Annex VI. It is generally regarded as a start, but much more rigorous restrictions are still needed. UNFCCC had given the mandate to IMO to regulate this and as such, could put more pressure on it to advance the matter faster.

Exploring Tools and Technologies

Systematic approaches to designing networks of ABMTs

Pat Halpin, PhD. Duke University Marine Geospatial Ecology Lab

To inform the creation of a coherent network of MPAs and other spatial and temporal management measures in the context of a changing ocean, it will be necessary to build on what currently exists and identify what is needed (e.g., a systems approach as well as processes to build the science, data management and capacity). As part of the SARGADOM project, the team at the Duke University Marine Geospatial Ecology Lab will contribute to three tasks to support a future Ecosystem Diagnostic Analysis (EDA) and Driver-Pressure-State-Impact-Response Framework (DPSIR) analysis for the Sargasso Sea and Thermal Dome:

- Describe the dynamic Sargasso Sea & Thermal Dome features/uses and spatio-temporal variability
- Review the data and information needs for the EDA
- Analyse and synthesize existing research and information

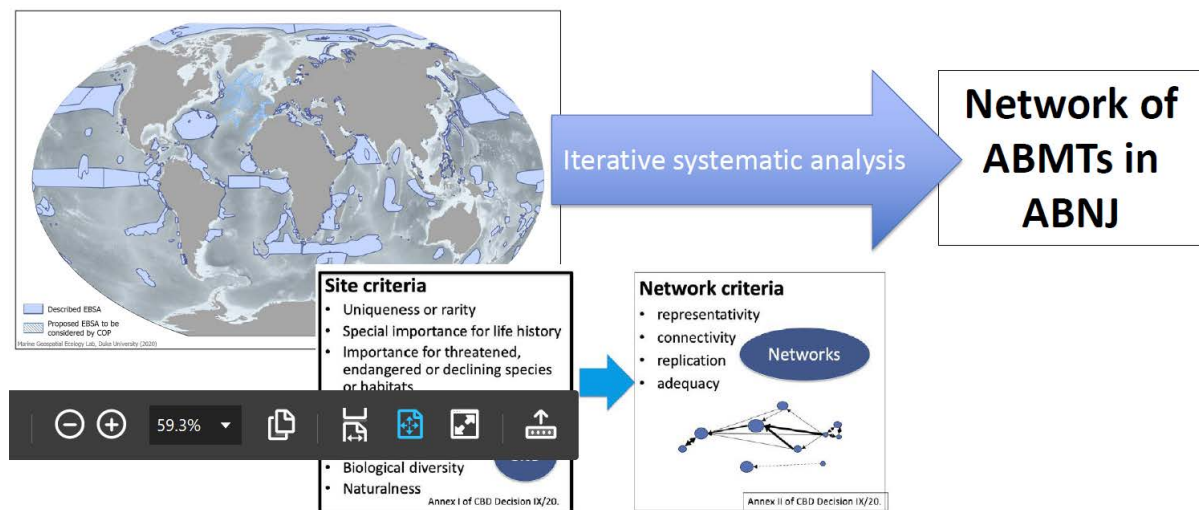
When it comes to the implementation of ABMTs including MPAs, the BBNJ Agreement has the potential to enable a systematic process and the infrastructure needed to advance ABMTs in a global and cross-sectoral perspective. This

global perspective requires a **systematic** process that can safeguard global ocean **biodiversity** and **ecosystem functions** across a range of **scales** both spatial and temporal.

However, to enhance coherence with national and regional efforts, the BBNJ Agreement's definitions and approaches may wish to take into account widely accepted ABMT criteria and approaches, including the CBD EBSA process and/or the IUCN MPA criteria. For example, the CBD EBSA process provides a detailed set of both site-specific criteria, such as vulnerability and biological productivity, and network criteria, such as representativity and connectivity. A four-step process for ABMT identification also already has been recognized in CBD Decision COPIX/20 Annex III; the Ocean Biogeographic Information System (OBIS) provides a globally recognized data infrastructure. There is thus little need to develop other criteria, design new processes or create new data infrastructures.

Crucially, **the BBNJ Agreement provides the opportunity to take a more systematic approach that considers both important areas and representative areas at multiple scales, from transboundary to regional to global.** For this, it will be necessary to apply two levels of criteria: site criteria (e.g. EBSAs) but also network criteria (representativity, connectivity, replication and adequacy). To accelerate progress, the process can start by applying existing mechanisms and processes in the context of the BBNJ agreement.

From a scientific expert to a systematic process



However, challenges persist:

- In data-poor areas, ABMTs are difficult to designate, and a precautionary approach is fundamental.
- The clearinghouse mechanism in the BBNJ treaty so far does not cover ABMTs. New mechanisms to better promote interoperability of data structures are needed and the clearinghouse mechanism could be instrumental to that end, especially in the context of ABMTs including MPAs.
- Information also remains a challenge, especially when it comes to defining how much information is enough to take a certain management measure.
- The ecosystems' conditions and shifting baselines are considerations to bear in mind when looking at ABMTs within ABNJ.

A global-scale approach is better equipped to encompass connectivity generated by migratory species and to ensure that regionally abundant but globally threatened species are given appropriate consideration. Nevertheless, a regional approach is also necessary as it can

provide better resolution data, and better scale for ease of coordination and implementation. Both regional and global scales analysis should be implemented iteratively. ***ABMTs in ABNJ will likely include large dynamic features –the Sargasso Sea and Thermal Dome provide useful test cases.***

Looking into the future, it is time to consider the three dimensions of ocean space to include the surface, the water column and benthic features in protection and conservation efforts, as well as the fourth dimension of time, to take the dynamic characteristics of the ocean into account. Ecological Marine Units provide some interesting potential to look across multiple layers of water. Many ecoregional analysis will require **4D analysis** representing the change in the feature across multiple time scales.

To do this, research priorities include filling in the significant data gaps in OBIS for marine areas beyond national jurisdiction as well as the midwater column and the deep seabed everywhere. Also need to understand different types of connectivity, from oceanographic, ecological, and migratory species. The Migratory Connectivity in the Ocean (MiCO) tool, developed under the GOBI-IKI Project,

is an important start. Additionally, sustained ocean observing system and international ocean data infrastructure will need to be strengthened and should be included as part of any new BBNJ clearinghouse mechanism. And finally, the UN Decade on Ocean Science for Sustainable Development provides an opportunity to promote targeted work to develop the knowledge and capacities needed to develop ABMTs.

In summary, the BBNJ Agreement:

- Provides a great opportunity to address ABMTs from global and cross sectoral perspectives
- Enables a systematic process that can safeguard global ocean biodiversity and ecosystem functions across spatial and temporal scales
- Can build on widely accepted site and network criteria and the recognized four-step implementation process
- Provides a framework for ABMTs to include large dynamic features
- Requires a targeted focus on implementation needs (e.g. data and capacity)
- Requires acquiring further data (OBIS, MiCO)

The recent example of the designation of an MPA for seabirds only within the framework of OSPAR was mentioned to illustrate the difficulties High Seas MPA may face in applying precaution: whilst connections between seabirds and seafloor are clear in this area, data gaps prevented the full designation of an MPA for benthic and pelagic biodiversity.

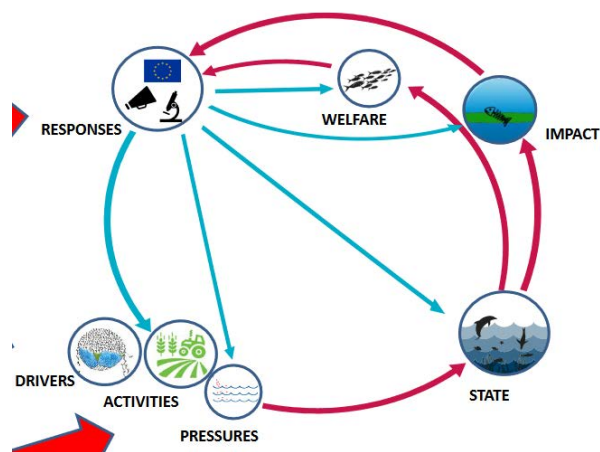
Integrated assessments for conservation planning

Denis Bailly, Université de Bretagne Occidentale, UMR AMURE, Ocean University Initiatives

Integrated assessment for conservation planning can be used as a framework to address area-based management in ABNJ. Integrated assessments enable a systemic view of the interactions between ecosystems and society to support action. It is a trans-disciplinary approach, going beyond solely scientific expertise. Following the identification of target audiences from the early stage, it generates clear statements for each stakeholder group. It also helps identify knowledge gaps and communicate clearly to policy makers. It should be regularly updated, probably relying some form of adaptive management to feed on new information.

Different frameworks are in place for the development of integrated assessments. DPSIR (drivers, pressures, state, impacts and responses) is a popular one in this context. This framework can be used and applied in different ways depending on the expertise of the users (natural science, economics or social sciences). The DPSIR framework appears to work well across socio-ecological and economic systems, but often may result in information that is too general to support targeted action.

In order to extend the framework to dive deeper in social and economic components, the framework can be adapted to DAPSIWR with A standing for activities and actors and W for well-being, providing a more comprehensive picture of the area assessed. Also coupling DSPIR with ecosystem assessment can be a valuable tool to better link natural systems with human activities.



<https://www.responseable.eu/>

The value of integrated assessments will be explored throughout the Sargasso Sea and Thermal Dome, in the framework of the SARGADOM project. The assessments will produce the data infrastructures as well as narrative reports and visual material for policy makers and a broad audience. Lessons learned and adaptation of the framework will be further developed under phase 2 of the project.

The assessments will seek to address environmental degradation themes from the perspective of broad areas of interest, such as biodiversity loss, water quality degradation, habitat loss as well as cumulative pressures and impacts. Questions that will be applied in structuring the assessments include (1) whether to focus only on a specific issue/problem or multiple one, (2) whether to stay within the scope of the assessment or also provide recommendations and assess actions, (3) defining who the relevant experts are, and (4) identifying the stakeholders and decision makers to communicate to.

Monitoring changing ocean environments from space:

Vardis Tsontos, PhD., Jet Propulsion Laboratory, California Institute of Technology.

Satellite earth observation provide fundamental data and information on physical transformations happening in the ocean. For instance, examples of core ocean variables observable from space include sea surface temperature, salinity, ocean color/surface productivity, precipitation etc. Many of these data are open access in agency data archives but there are still challenges for users, including data validation and integration of different datasets. The NASA-supported COVERAGE project aims to collaboratively tackle these challenges by providing a platform that can grant access to complementary datasets with a focus as a pilot study on the Sargasso Sea.

The COVERAGE platform will complement ongoing work to integrate ocean remote sensing, physical modelling and in-situ data sets to enable decision-support for high sea fisheries applications. By combining publicly available information from RFMOs, electronic tagging datasets, and AIS fishing vessel movement (from Global Fishing Watch), the products can provide habitat analysis for highly migratory species, tuna spatial catch forecasting, by-catch mitigation, MPA/fishery closed areas, and ecosystem-based management.

[Project - COVERAGE \(ceos.org\)](https://ceos.org)

Monitoring human uses from space

Matt Gummery, Global Fishing Watch Monitoring

Ecosystem based management is an essential tool for the recovery of the ocean, but it may be hampered by lack of data to ensure that such approach and the related measures are respected in fishing and other human operations around the world. Global Fishing Watch responds to this challenge through its Marine Manager by

providing historical and near to real-time data on fishing activities, and it is available to everyone with an internet connection. The Marine Manager platform has many advantages, for instance providing assistance to spatial managers in effectively using their limited resources to manage large-scale marine areas, as well as helping to define new areas in need of enhanced management based on the best science and user-information available.

[GFW | Marine manager \(globalfishingwatch.org\)](https://www.globalfishingwatch.org/)

Making Progress in Practice

To explore and review the processes, challenges, and opportunities for advancing ABMTs including MPAs under the BBNJ Agreement, workshop participants were split between seven break-out rooms, four focusing on the Sargasso Sea and the three other ones on the Thermal Dome. Guiding questions had been prepared to structure the discussions, and each group appointed a rapporteur. The Guiding questions (see Annex 3) were grouped in four categories: 1) Preparation of a proposal under Article 17; 2) Consultation on proposals under Article 18; 3) Decision-making under Article 19 [Alt 1]; and 4) Implementation, monitoring and review Articles 20 and 21:

Each break-out room's rapporteur provided a summary of the discussion in plenary. The sections below represent a composite of the breakout group and plenary discussions on each question.

1. Preparation of proposal under Article 17

What might be the conservation objectives for the two areas, given what we know already? What kind of knowledge do we have already, and what sort of technical tools and resources are needed?

- To ensure progress towards sustaining ocean health in the face of increasing pressures, a high-level vision for ocean health, ecosystem integrity and social equity could help to incentivize collaboration in the right direction.
- Regarding possible conservation objectives, even when information is lacking, the vision of safeguarding ocean health, productivity, and resilience should

also drive site-specific objectives and supporting mechanisms.

- Since we are trying to balance conservation and sustainable use throughout the ocean, it might be useful to also consider marine spatial planning (MSP) as a possible long-term approach. As the need for protection is urgent, MSP should not delay the designation of MPAs and other ABMTs, it could be a useful complement. Integrated assessment processes being developed for the SARGADOM project may also be a useful tool to ensure all players operate from the same vision and information base from early stages on through management.
- In addition, if sustainable use is kept as an objective for MPAs, a universally accepted definition of sustainable use may also be needed; but one that distinguishes what is ecologically sustainable in general from what may be ecologically sustainable for sensitive ecosystems or species and for MPAs. Scientific indicators and thresholds could be established for monitoring progress as well as for triggering action. As an example, in the Thermal Dome there are well established physical parameters that could act as proxies for biomass or species number estimates.

What types of measures might be suitable for the Thermal Dome and Sargasso Sea areas based on what is already known?

- Measures will need to be nimble, responsive and possibly dynamic. Although it is too early to determine yet, potentially useful tools to consider include dynamic

areas, cross-sectoral MPAs and other ABMTs, and regional environmental assessments

- Every avenue needs to be explored e.g., UNESCO World Heritage Site on the high seas.
- As evidence of harm is often difficult to establish, given the remoteness of these areas, and environmental conditions are constantly shifting, it will be necessary to rely on the precautionary principle when adopting conservation measures as has already been the rationale in other areas (e.g., OSPAR High Seas MPAs).
- Cross-sectoral spatial planning could be a vehicle for transboundary and cross-sectoral conservation but needs to be guided by systematic conservation objectives and indicators, as well as sustainable use criteria and indicators.
- It will be important to have both general and site-specific objectives to guide the selection of appropriately ambitious measures, to avoid pushback against the very concept of marine protected areas (as there may be a cost in terms of lost opportunities). Again, cross-sectoral planning that considers how sectoral activities might better address their biodiversity impacts outside MPAs could be useful.

What might be some of the benefits or challenges of collaborating with relevant stakeholders in the early stages of proposal development? What could be the added value of integrated assessments?

- Early collaboration could facilitate passage of the measure. However, the stakeholder base is potentially huge, raising the question of how/when/who to consult? Nevertheless, it will be important to try, as otherwise there could be unexpected

difficulties when the proposal is formally offered for consultation.

- Developing a common base of information can help stakeholders define site-specific objectives. Integrated assessments such as those proposed for the SARGADOM project could serve to improve knowledge of what is out there and deepen understanding of the full range of connectivities. Crucially such assessments could also provide a common platform to work with the variety of stakeholders early on in the process to build a shared knowledge base.
- An institution/leader with dedicated funding to coordinate the assessment and work with stakeholders including coastal States, other States, sectoral bodies, industry (such as deploying ships of opportunity with sensors to gather data), scientists and civil society may thus be a key mechanism for consultations and collaboration in the pre-proposal stage. How might this be facilitated under the BBNJ Agreement and other financial mechanism?
- In terms of facilitating multi-stakeholder processes, MSP experiences could prove useful to draw up. MSP processes often benefit from structured deliberations with professional and skilled facilitation to bring stakeholders to a common vision and shared solutions. What could be the mechanism for skilled facilitation in ABNJ?
- Looking towards the future, to ease collaborative MPA/ABMT/MSP planning efforts it may be possible to develop a cadre of specially trained facilitators to help cultivate the necessary technical, scientific, and legal knowledge, sophisticated management skills and diplomatic finesse. Could such training perhaps be part of university/post graduate

curriculum, including as part of any capacity development initiatives?

2. Consultation on proposals under Article 18

The proposed process for consultations on proposals appears to be a series of bilateral consultations facilitated by the BBNJ Secretariat. What happens if there are conflicting results amongst the various states and stakeholders?

- To avoid potentially conflicting responses during the formal consultation process for ABMTs, the consultation process should be broad and very inclusive. All concerned Parties/ organizations/ institutions should have access to the proposal and be able to make comments on it. But is this enough? Further iterations and a written procedure may be required.
- Close working with relevant stakeholders, such as nearby States, before the formal process may still be fundamental to development of the ABMT proposal and may help the proposing state or states to anticipate areas of conflict before the formal consultation.
- It is important to acknowledge that ABMT negotiations may be a highly political process, where it may be difficult to know in advance what conflicts will arise. There may be divergences over facts, but also over the significance of facts, as well as differences in values, priorities, interests, capacity, and larger equity concerns.
- Should conflicts arise, what are the options? Rely on the Secretariat to run a facilitative process with the proponent resulting in the BBNJ Secretariat either i) making a synthesis of the proposal and proposing a compromise or ii) initiating a second (and third and fourth) round of consultations. Proponents would be expected to adjust proposal to reflect the results of the consultation prior to submission to the scientific advisory body, who then reviews it before making a recommendation to the COP for a decision.
- However, there are concerns that this process could be easily stalled, and that a proposed compromise might not be sufficient to achieve the conservation objectives for the proposed MPA or other ABMT. It could thus help to look further at possible reasons for potential conflicts, such as divergent views on the science, conservation or political aspects of the proposal or proposed measures. Based on the kind of divergence, it is possible to consider what procedure to take and who will be able to resolve it.
- Scientific divergences can more “easily” be resolved compared to the political divergences through research and integrated assessments to build a shared understanding.
- On divergences over proposed conservation measures: evidentiary standards for proposals could help to ensure there is biodiversity value to protect and a range of human impacts (present or future) on this area. But there could also be some evidentiary standard for opposing a proposed ABMT.
- Equity issues involving access to information also need to be born in mind as some countries may not have access to relevant knowledge or have the research capacity to argue in favour (or against) a certain ABMT. Co-creation of knowledge including with the private sector was also mentioned as potentially relevant in this context given the right conditions.
- Geopolitical aspects can be difficult to overcome, as it could be that some actors are simply opposed to any type

of restriction on economic activity or use the proposal as a bargaining chip on unrelated matters.

- A further challenge may be potentially inconsistent positions held by a State in different bodies. While it is assumed that States will coordinate positions internally, this does not always happen.
- To address inconsistent positions, there may need to be diplomatic ways to ensure that States are responsible for whatever has (not) been said or done in multiple bodies. In the draft text this is reflected in the part where it says that States are responsible for follow-up activities in other fora. However, it was queried if this was enough to ensure the adoption of effective conservation measures in one or more bodies.
- The possibility of establishing a body to bring all existing bodies together and facilitating the various processes was put forward as a way to address the power imbalance between sectoral and conservation bodies. The example of the OSPAR Convention was mentioned, e.g. fisheries consultation processes (discussions held in multilateral groups before being brought back to political body for decision)
- In addition, a Conference of Parties with strong decision-making power and voting rules may be needed to address these concerns. To speed deliberation within other bodies, such bodies could be invited to establish a stand-alone agenda item on ABMTs as part of their regular meetings as is the case with IMO for PSSAs.

What might be the added value of multi-stakeholder deliberation?

- Multi-stakeholder meetings could complement the envisaged

stakeholder-by-stakeholder consultation process by allowing a more interactive exchange of views. This could serve to build understanding and trust across a range of stakeholders and thereby enhance acceptability of any new conservation measures for all.

- It would be very important for the process to be conducted in close collaboration with existing regional arrangements, especially in the context of the Thermal Dome where regional institutional structures are already in place.
- **In practice, for places such as the Thermal Dome, it may make sense to organize consultations and multi-stakeholder deliberations at the regional level far earlier and more regularly throughout the process.** For the Thermal Dome it is anticipated that proposals will be generated by a proponent (or proponents), to then be amended/updated/refined in consultation with a broader group of interests. The BBNJ Secretariat would facilitate but would remain neutral.
- Regional workshops akin to those convened by the CBD for EBSAs might also be envisaged to help engage stakeholders and knowledge-holders from inside and outside specific regions develop knowledge and trust. Funding is always an issue especially but not only for Least Developed Countries and Small Island Developing States. Special dedicated funds may be required in the early stage to help develop proposals.
- The Sargasso Sea Commission would be a focal point for multistakeholder deliberations as well. At an early stage of development, the Commission could be involved in the scientific assessments, as is envisaged as part of the GEF project. However, the Sargasso Sea Commission does not have the convening power to

get all the stakeholders to the table. Which leads to the practical question of how to link regional knowledge of the Commission with a State party that can make the proposal?

- The OSPAR Convention process for the designation of MPAs was held up as an example of a facilitated process. The OSPAR Secretariat is authorized to lead consultation with fisheries organisations, particularly NEAFC, and countries of the other side of the Atlantic. This feedback is compiled and discussed in the multilateral scientific group. Some organizations such as FAO are approached directly. The importance of engaging academia and NGO was also highlighted as these stakeholders often hold valuable information. While it is up to Parties themselves to decide, the Secretariat can do much in addition to opening an online call for consultation.

3. Decision-making under Article 19 [Alt 1]

Which of the relevant IFBs for your region have mandates for the adoption of biodiversity conservation measures based on precaution and ecosystem-based approaches? Are there any biodiversity conservation measures already in place for your region?

For the Thermal Dome:

- The institution, frameworks, and bodies to take decisions to adopt conservation measures are not in place and are still evolving. SICA and its Commission for the Environment have developed a 5-year Work Plan, which will hopefully be approved in February 2022. This Plan applies to EEZs but the idea is that it should also recognise that the Thermal Dome is

also in ABNJ. There is a commitment to work with other international and regional organisations.

- It was noted that the Antigua Convention (Regional Seas Convention) exists but has yet to be ratified. There is a governance gap in terms of non-tuna regional management.
- There are no conservation management measures yet in place for the Dome. The CBD has described part of the area as an EBSA, but no management is implied by the EBSA description. Similarly, a GOBI-IKI workshop to bring together scientific information to describe “Important Marine Mammal Areas” (IMMA), now scheduled for 2022, will strengthen the scientific baseline. Early consideration is being given to whether a PSSA is appropriate.
- MarViva’s role (as an independent NGO) is to raise awareness, support the scientific case and inform SICA. Potential future World Heritage considerations are another element worth considering. It was noted that Pacific countries at BBNJ are advocating complementary measures (i.e. not undermining) and where a gap exists, such as this, one possibility is that the BBNJ COP could adopt additional measures.

In the Sargasso Sea:

- There is currently no non-tuna RFMO in the southern edge. The Western Central Atlantic Fishery Commission (WECAFC), a regional fisheries advisory body, is discussing extending its mandate to become a management body – but this may take some time, so in the meantime it has no mandate to adopt binding management measures on its members.
- A more strategic planning process will help the Sargasso Sea Commission

identify gaps in knowledge, management and governance relevant to future ABMTs. The upcoming GEF and FFEM projects are designed to provide the financing to convene all the stakeholders to orchestrate a planning effort, which is currently lacking in the Sargasso Sea, as in all other high seas areas.

- The BBNJ Agreement could help by providing a mandate and capacity for an overarching convening organisation, by strengthening the communication between existing organizations, and keeping such planning efforts under review.

ii. What sort of decision-making procedures are in place within these IFBs? What difference might that make?

- Will need to identify early on the processes, decision-processes and timeframes of the bodies that BBNJ must work with. The roles of the various players should also be clear e.g. what regional bodies can do VS what states can do. It was notably stressed that States had to understand they had power as Contracting Parties to the various instruments as well as flag, market and port States in control of vessels and nationals.

4. Implementation, monitoring and review Articles 20 and 21:

a. What should proponents be aware of at this stage regarding the challenges of implementing and monitoring ABMTs including MPAs?

- Implementing and monitoring ABMTs including MPAs could be a costly burden if it is to be done by Central American countries alone. The prospect of a management plan also raised important questions such as who will be responsible for

implementing the plan? How is it possible to address inequity of information and needs? Finance will thus be an important consideration.

- With respect to coordination, it will be important to consider who would be empowered to take decisions and what would be the decision-making process?
- Necessary to think ahead to what sort of compliance and enforcement mechanisms might be needed to ensure compliance with the management plan and its measures? Traditional mechanism to facilitate compliance may be more challenging in ABNJ because MPA would apply to all actors/sectors, rather than with specific/narrow measures.
- Need to be creative; enforcement of ballast water discharge may be hard to monitor in ABNJ ABMTs, so routing measures could help in preventing them from happening.
- Other questions include how to ensure transparency and information sharing? To assist with data and knowledge collection, it may be possible to use existing initiatives and partnerships to collect data and knowledge. But greater consideration is needed on how to increase access to commercial data that is also important for designing conservation measures such as regarding bycatch or ship discharges.
- Monitoring of huge areas will require putting in place the financial means, advanced technologies, and strategic partnerships, as many national governments have limited capacity. These partnerships could be a way to pool resources, e.g., for MCS - support governments to have systems that can readily share/integrate with other systems. Careful coordination will be essential.

- In terms of the role of technological tools, key factors to consider include:
 - role for clearing-house mechanism in coordinating, data etc.
 - capacity needs in coastal State/s closest to the area to be protected
 - education/awareness - actors need to know what is out there to protect
 - without knowledge there won't be allocation of financial resources
 - also need awareness of what bodies/tools there are to manage it - many unaware of how good the technology is and how fast it is developing - we can do this!

b. What might be some key priority elements for a management plan, or for a research and monitoring plan?

- *Key priorities for a management plan* for the Thermal Dome might include shark fisheries, vessel speed, climate parameters, cumulative impacts including indirect impacts of land-based sources and possible future deep-sea mining plumes. Connectivity also needs to be incorporated -- both vertical and horizontal - when looking at pelagic species and dynamic movement of protected features.
- May be useful to consider management plans for existing large MPAs to share lessons learnt was highlighted e.g. what species to conserve, what means used to carry out surveillance etc.
- In an ideal case scenario BBNJ agreement can adopt a management plan including measures in collaboration with existing bodies.
- Key elements of a *management planning process*, based on lessons learned from large MPAs include:
 - Build up a "picture" of the area and threats. this is essential but can take a long time
 - Identify species to be conserved - start with species known to be affected - e.g. whales, tuna, turtles in the Dome
 - Set goals for ecosystem-based management, protect integrity and functional linkages
 - Identify knowledge gaps; ecosystem services provided; trade-offs/ cost-benefit analysis - who may win/ lose
 - Obtain initial indication of available MCS options
 - Identify potential management avenues/bodies and management structure so plan can be adapted to that.
 - Identify/develop criteria to assess and monitor individual and cumulative impacts, the effectiveness of the conservation and sustainable use measures, and to assess effects of climate change in isolation and cumulatively with other impacts
- Management plans will need to specify responsibilities for Parties and other bodies. Question of who is the governance body for individual sites? A new body may not be politically feasible in all areas. But each site will also need a body that represents more than just sectoral organizations. This could be at the level of the COP, or allocated responsibility to a scientific and technical advisory body or other body, so there is a process for harmonising, for ensuring global cooperation.
- *Key priorities for research and monitoring plan include climate change and cumulative impacts.* It will be critical to monitor changes associated with climate change,

such as ocean temperatures, salinity, oxygen and pH as well as the impacts of these changes on the effectiveness of ABMTs.

- Climate change impacts on the Dome are uncertain - understanding these and translating what they mean will be a huge challenge (e.g. fishing may intensify or decrease according to different scenarios).
- More thought is needed in terms of determining a baseline. The Dome was observed by NOAA over 2-3 decades and IATTC has an Observer Programme, but much remains unknown and what is known may be changing.
- Ongoing access to scientific information and evidence will be of paramount importance not only on the ecological status of the area but also in relation to the impact of economic activities on the concerned ecosystems
- Technology can allow mapping of biological features and ensure that ABMTs also move according to these changing data; but tracking technology is needed for that and acceptability by a wide range of actors is the challenge. New technology may provide a good opportunity to use remote sensing tools (e.g. promising developments to monitor whales from space but concerns about how expensive this might be and who will pay?).
- *Monitoring for compliance* also needed in addition to monitoring whether measures effective and achieving objectives. Will need to know more about the type of monitoring that IMO and other IFBs apply to determine whether a measure is successful or efficient.
- Might consider agreements on reciprocal enforcements via RFMO, depending on types of measures is adopted by the relevant bodies. Could consider developing regional frameworks but monitoring for compliance is generally for States to do. Remote sensing and ground proofing are expensive but essential.
- Challenges: what to do with States fishing in a region that are not part of the RFMO (e.g fishing entities) or for fisheries like squid where many are not yet covered or controlled by RFMOs? What about flags of non-compliance or fraudulent registration of vessels? what about activities that are not monitored?
- *How often should reporting to the COP take place?* While annual reporting may be optimal, it was cautioned that yearly reporting can become a rubber stamp. Thus, may wish to have longer periods between report. But may need a role for the COP if there is a problem with the quality of reporting or if harmful effects become evident including in between reporting cycles. Reporting could also depend on the type of area-based management tool. There may need to be an effort to streamline bureaucracy to avoid duplicative reporting.
- As punitive enforcement mechanisms would be difficult to apply in ABNJ given how wide the areas are, an implementation and compliance committee may be important in helping to encourage States and other IFBs to report back

Conclusions:

Considerations for negotiators stemming from these discussions included:

- 1. Urgency to finalize in 2022:** Considering the urgent need to protect global ocean health, productivity and resilience and safeguard marine life beyond national boundaries, it is crucial that all States and other stakeholders cooperate to conclude an ambitious BBNJ Agreement as soon as possible. Should IGC4 not be able to adopt the final text of the BBNJ Agreement, any subsequent IGC session should take place in 2022.
- 2. Equity is an enabling condition** for unlocking benefits for humankind and the ocean beyond borders. Inequality is a pervasive concern including with regards to access to data, information, technology, resources as well as capacity for marine scientific research and management, especially regarding BBNJ. Capacity, technology, skills and information transfer and data sharing are urgently needed to address knowledge inequities and gaps.
- 3. Time for climate-smart management:** Climate-smart measures are needed now to stem cumulative effects, build resilience, protect climate refugia and accommodate the redistribution of species and ecosystems over time. The management of the ocean should thus be based on the best climate science and reflect that all parts of the ocean are interconnected. In addition to MPAs, the BBNJ Agreement could enable the evolution of innovative ABMTs like dynamic closures and migratory corridors, based on systematic assessments, cross-sectoral spatial planning, monitoring and adaptive management to respond to monitoring results.
- 4. Breaking silos and fostering engagement:** To foster cross-sectoral engagement, the BBNJ Agreement can play an essential role by facilitating integrated planning and management. The BBNJ Agreement can, for example, provide the missing platform to convene relevant stakeholders in an inclusive and transparent manner, and channel collective ambition. It will complement the mandates of existing organizations by delivering the transformative change needed to safeguard ocean life amidst a rapidly changing climate.
- 5. Need for systematic approaches:** Systematic approaches will be essential in the design and effectiveness of climate-smart, representative and connected networks of MPAs and other ABMTs. Coupling a socio-economic assessment with an ecosystem diagnostic assessment can better link natural systems with human activities. At the same time, good management requires good information and shared datasets. For this purpose, obligations to exchange data via the future clearinghouse mechanism in the BBNJ Agreement will be key.
- 6. Mechanisms to facilitate a proposal:** Expertly facilitated multi-stakeholder deliberations will be needed to address

differing interests, build knowledge and trust, encourage early collaboration to enable access to and exchange of data, and encourage as well as build support for buy-in to conservation measures. States may wish to consider establishing or designating a lead institution/s with dedicated funding and specially trained facilitators to help coordinate the work with stakeholders, including coastal States, other States, sectoral bodies, industry, scientists and other experts, Indigenous Communities, and civil society.

- 7. Powers of the COP:** To enable timely action, the COP will need a clear mandate to adopt measures even where there are other bodies, as these other bodies may be slow, reluctant, blocked by one or two States parties, and/or apply different definitions of precaution and “sustainability”. While consensus-based decision-making approach is the optimal objective, a pragmatic mechanism for majority-voting

procedure is needed to ensure timely progress.

- 8. Effective financial support is the linchpin of progress:** Funds will be needed at multiple stages: to acquire scientific and indigenous and local knowledge, collect relevant commercial data, convene stakeholders, and support consultative processes. Cost-benefit assessments, while useful for some purposes, are still poor at including the costs of no-action (biodiversity loss, fishing opportunities loss, etc.). A robust financial mechanism for ABMTs will be vital to maintain momentum and ambition throughout the proposal process and support implementation.

All participants recognized that negotiating the BBNJ Agreement is a key yet multilayered complex process, and that whilst finalization and ratification will need to be pursued promptly, the obligations are here already and calls for actions cannot wait. It is time for vision, ambition, and pragmatism.

Annex A: List of Participants

LAST NAME	FIRST NAME	ROLE AND AFFILIATION
Helen	Ågren	Swedish Ambassador
Diva	Amon	SpeSeas, Trinidad and Tobago
Denis	Bailly	Ocean University Initiative, University of Brest
Cyrille	Barnerias	French biodiversity agency (OFB)
Kieran	Bjergstrom	NLA International
Robert	Blasiak	Stockholm Resilience Center
Ben	Boteler	Institute for Advanced Sustainability Studies (IASS)
Clement	Chazot	IUCN, Global Marine and Polar Programme
Jesse	Cleary	Duke University
Jack	Collier	Dept. for Environment, Food and Rural Affairs, U.K.
Klaudija	Cremers	IDDRI, Institut du développement durable et des relations internationales
Tammy	Davies	BirdLife International
Carole	Durussel	Institute for Advanced Sustainability Studies (IASS)
Kjell Kristian	Egge	Norway, MFA
Minna	Epps	IUCN, Global Marine and Polar Programme
Veronica	Frank	Greenpeace International
David	Freestone	IUCN Sargasso Sea Commission
Serge	Garcia	IUCN-CEM-FEG Secretariat, EBCD
Kristina	Gjerde	IUCN High seas senior advisor
Charline	Guillou	AMURE UMR6308 / University of Brest
Bleuenn	Guilloux	Ocean University Initiative, University of Brest
Matt	Gummery	Global Fishing Watch
Patrick	Halpin	Duke University
Carolina	Hazin	BirdLife, UK
Lea-Anne	Henry	University of Edinburgh
Lillan	Henseler	Ministry of Infrastructure and Water Management, Netherlands
Marie	Houdart	DG Mare, European Commission
Erich	Hoyt	IUCN - SSC - WCPA
Julian	Jackson	High Seas Alliance, PEW U.K.

LAST NAME	FIRST NAME	ROLE AND AFFILIATION
Marie May	Jeremie Muzungaile	Biodiversity Conservation and Management Division, Seychelles
Jorge	Jimenez	MARVIVA
David	Johnson	Seascope consult. Ltd
Maude	Jolly	MTE Négociations océan, mers et pôles Bureau biodiversité et écosystèmes Direction de l'action européenne et internationale SG/DAEI/SAI/BBE France
Joanna	Kolasinski	Ocean University Initiative, University of Brest
Olivier	Laroussinie	Direction technique Risques-Eau-Mer, Cerema
Nadège	Legroux	French Development Agency (AFD)
Ronán	Long	WMU-Sasakawa Global Ocean Institute, Nippon Foundation
Phénia	Marras-Aït Razouk	French Biodiversity Agency (Office français de la biodiversité, OFB)
Anna	Metaxas	Dalhousie University; Department of Oceanography
Johannes-Alexander	Müller	Ocean Policy Expert
Guillermo	Ortuño Crespo	Stockholm Resilience Center
Daniel	Palacios	Department of Fisheries, Wildlife, and Conservation Sciences, Oregon State University
Jacopo	Pasquero	IUCN-CEM-FEG Secretariat, EBCD
Cymie	Payne	IUCN WCEL
Joelle	Richard	Ocean University Initiative, University of Brest
Haydée	Rodríguez Romero	MarViva
Fae	Sapsford	Sargasso Sea Commission
Serge	Segura	French Ambassador of the Oceans, Ministry of Foreign Affairs and International Development (MAEDI)
Julia	Sigwart	Senckenberg Research Institute and Natural History Museum Frankfurt
François	Simard	Independent consultant
Aurélié	Spadone	IUCN, Global Marine and Polar Programme
Despina	Symons	IUCN-CEM-FEG Secretariat, EBCD
Marie Legernes	Teigen	Norway, MFA
Alain	Tellier	Canada government
Viviana	Tinoco	Department of sustainable development and environment, Ministry of Foreign Affairs, Costa Rica
Vardis	Tsontos	NASA Jet Propulsion Laboratory
Sebastian	Unger	Institute for Advanced Sustainability Studies (IASS)

LAST NAME	FIRST NAME	ROLE AND AFFILIATION
Daniel	Wagner	Conservation International
Glen	Wright	IDDRI
Joan	Yang	Nauru
Renée	Sauvé	Fisheries and Oceans Canada
Roseline	Baronce	Unspecified
Samantha	Watts	UK, Department for Environment, Food and Rural Affairs
Tamara	Thomas	Conservation International
Lauren	Lopes	Sea Shepard Legal
David	Vousden	Ocean Governance
Janaka	de Silva	IUCN, Global Marine and Polar Programme

Annex B: Agenda

REVISED AGENDA

Workshop on Area-based Management Tools in Areas Beyond National Jurisdiction

Virtual Setting
7 & 8 December 2021
(Central European Time)
Zoom

Overall objective of the workshop:

Identify key steps (and challenges) for establishing ABMTs under the BBNJ Agreement, using the two areas of the Sargasso Sea and the Thermal Dome as concrete case studies.

New setting:

- A. Introductory part: fully virtual 7 & 8 December 2021
- B. Follow-up activities in Q1 2022 ahead of IGC4

Background documents:

- The two outcome documents from the 2019 IUCN ABMT workshop:
 - [Summary – 4-pager](#)
 - [Workshop report](#)
- [IUCN Comments on BBNJ draft text Aug 2019](#) (Feb 2020)
- Area Based Management Tools (ABMTs) [High Seas Alliance \(HSA\) BRIEFING #2: How do MPAs and other ABMTs differ?](#)

Tuesday 7 December 2021 (15:00 – 18:00 CET)

15:00 - 15:15	Opening by Minna Epps (<i>Director, IUCN Global Marine and Polar Programme</i>) and Cyrille Barnerias (<i>Director of European and international relations at the French biodiversity agency (OFB)</i>)
15:15 - 15:30	Presentation round of participants Quick run through workshop programme and setting (Chatham House rule)

PART I Why we are here

Presentations followed by discussion

15:30 – 16:00	1. State of Play of BBNJ Negotiations Kristina Gjerde Additional thoughts by participants to secure views on opportunities and challenges
16:00 – 16:20	2. State of Play of BBNJ science, climate change, connectivity and biodiversity conservation: implications for ABMTs including MPAs Anna Metaxas Comments and questions from participants

15-min break

16:35 – 17:05	3. Introduction and Tools for Ecosystem-based planning of ABMTs <ol style="list-style-type: none">Role of integrated assessments for conservation planning, Denis BaillyExisting tools for filling knowledge gaps <i>Presentations followed by discussion</i><ul style="list-style-type: none">Vardis Tsonetos, NASA, Monitoring changing ocean environments from spaceMatt Gummery, Global Fishing Watch Monitoring human uses from spacePat Halpin, MGEL, Duke University, Designing systems of ABMTs including MPAs: overview of ABMT Strategy document
17:05 – 18:00	Group discussion & contributions from scientists in room on key advances

18:00 End Day 1

**Wednesday 8 December 2021
(14:30 – 18:00 CET)**

**PART II
Preparation for break-out sessions**

- 14:30 – 15:10
4. Introduction of two case study areas: threats and challenges for governance
 - ← Sargasso Sea, David Freestone
 - ← Thermal Dome, Jorge Jimenez
- Introduction to break-out session organization and questions

5-min break

**PART III
Break-out sessions**

- Break-out sessions*
- 15:15 – 16:30
- Topic I. Key steps for establishing ABMTs including MPAs in the Sargasso Sea under the BBNJ Agreement: Processes, challenges and opportunities
 - Topic II. Key steps for establishing ABMTs including MPAs in the Thermal Dome under the BBNJ Agreement: Processes, challenges and opportunities

10-min break

**PART IV
Conclusions and take-home messages**

- 16:40 – 17:30
1. Rapporteurs from Part III break-out groups to report back on outcomes
 2. Discussion on key similarities between the two sites and general implications for draft BBNJ agreement text
- 17:30 – 18:00
3. Participant take away from the workshop
 4. Identify next steps and priorities including upcoming calendar events preparing for IGC4 and possibly at IGC4 (side-events)
 5. Thank you and goodbye by Minna Epps

18:00 End of the workshop

Annex C: Questions for Breakout Groups

Key steps for establishing ABMTs including MPAs in the Sargasso Sea / Thermal Dome under the BBNJ Agreement: processes, challenges and opportunities

Questions for breakout group discussion on Tuesday 8 December 15:15-16:30 CET

Discussions will draw from draft BBNJ Agreement articles 17-21; please bring your knowledge of the Sargasso Sea and Thermal Dome regions as well as experiences in other arenas

1. Preparation of proposal under Article 17:

- a. What might be the conservation objectives for the two areas, given what we know already?
 - i. Which ABMTs might be more suitable for advancing sustainable use? Which ABMTs might advance comprehensive conservation? Are any tools missing?
- b. What kind of knowledge do we have already, and what sort of technical tools and resources are needed?
 - i. What might be some of the benefits or challenges of collaborating with relevant stakeholders in the early stages of proposal development?
 - ii. What could be the added value of integrated assessments?
 - iii. Are there examples in other arena where there are financial mechanisms to gather the requisite information for ABMT proposals?

2. Consultation on proposals under Article 18:

- a. The proposed process for consultations on proposals appears to be a series of bilateral consultations facilitated by the BBNJ Secretariat.
 - i. What happens if there are conflicting results amongst the various states and stakeholders?
 - ii. What might be the added value of multi-stakeholder deliberation?

3. Decision-making under Article 19 [Alt 1]:

- a. Which of the relevant IFBs for your region have mandates for the adoption of biodiversity conservation measures based on precaution and ecosystem-based approaches?
 - i. Are there any biodiversity conservation measures already in place for your region?
 - ii. What sort of decision-making procedures are in place within these IFBs? What difference might that make?

4. Implementation, monitoring and review Articles 20 and 21:

- a. What should proponents be aware of at this stage regarding the challenges of implementing and monitoring ABMTs including MPAs?
- b. What might be some key priority elements for a management plan, or for a research and monitoring plan?



For more information, visit
[**www.iucn.org/bbnj**](http://www.iucn.org/bbnj)



Ministry of Infrastructure
and Water Management
of the Netherlands



Government Offices of Sweden
Ministry of the Environment and Energy



For more information, visit www.iucn.org/bbnj