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REPORT OF THE THEMATIC WORKSHOP ON MARINE AND COASTAL BIODIVERSITY FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Montreal, Canada, 13-15 November 2019

INTRODUCTION

1. The Conference of the Parties to the Convention on Biological Diversity at its fourteenth meeting adopted decision [14/34](#) on a comprehensive and participatory process for the preparation of the post-2020 global biodiversity framework and requested the Executive Secretary to facilitate its implementation. In paragraph 6 of the decision, the Conference of the Parties urged Parties and invited other Governments and stakeholders to “actively engage and contribute to the process of developing a robust post-2020 global biodiversity framework in order to foster strong ownership of the framework to be agreed and strong support for its immediate implementation”.
2. Pursuant to the above request and with generous financial support from the Government of the Republic of Korea and the Government of Sweden, the Secretariat of the Convention on Biological Diversity convened the Thematic Workshop on Marine and Coastal Biodiversity for the Post-2020 Global Biodiversity Framework, in Montreal, Canada, from 13 to 15 November 2019.
3. This workshop was organized under the guidance of the Co-Chairs of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework and the oversight of the Bureau of the Conference of the Parties.
4. This workshop focused on eliciting views on elements related to conservation and sustainable use of marine and coastal biodiversity for inclusion in the post-2020 global biodiversity framework. The workshop aimed at producing concrete proposals to be considered in the further development of the post-2020 global biodiversity framework. The outputs of the workshop were intended to contribute to the discussions of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework. The organization of work for the workshop is provided in annex I.
5. Information documents were made available for participants to inform their discussions, including compilation of background briefs on various issues related to marine and coastal biodiversity, the report of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework on its first meeting (CBD/WG2020/1/5) and a document on Informing the Scientific and Technical Evidence Base for the Post-2020 Global Biodiversity Framework: Observations on Potential Elements for the Post-2020 Global Biodiversity Framework (CBD/SBSTTA/23/2/Add.4). Webinars were organized prior to the workshop to provide participants with information on the workshop background, approach, objectives and expected outputs.
6. The morning of Wednesday, 13 November 2019, comprised the continuation of the meeting on “Advancing Ocean Action Towards Sustainable Development Goal 14: Leveraging Synergies for Marine and Coastal Ecosystems, Mangroves and Coral Reefs”. All participants in the Thematic Workshop on Marine and Coastal Biodiversity for the Post-2020 Global Biodiversity Framework were invited to attend the morning session.

7. The meeting was attended by experts from Antigua and Barbuda, Argentina, Australia, Brazil, Bosnia and Herzegovina, Canada, China, Croatia, Denmark, Egypt, Finland, France, Germany, Ghana, Guinea, Guyana, Indonesia, Japan, Jordan, Madagascar, Malaysia, Maldives, Mexico, Myanmar, New Zealand, Norway, Pakistan, Palau, Peru, Republic of Korea, Spain, Sudan, Sweden, Syria, Thailand, Togo, Tonga, Turkmenistan, United Kingdom of Great Britain and Northern Ireland, United States of America, ASEAN Centre for Biodiversity, Assembly of First Nations, BirdLife International, Conservation International, Coastal Oceans Research and Development in the Indian Ocean, European Bureau for Conservation and Development, Food and Agriculture Organization, Global Island Partnership, Global Ocean Observing System, Global Youth Biodiversity Network, Greenpeace USA, ICCA Consortium, Institute for Advanced Sustainability Studies, Institut du développement durable et des relations internationales (IDDRI), International Coral Reef Initiative Secretariat, International Council for the Exploration of the Sea, International Whaling Commission, International Union for the Conservation of Nature, Mediterranean Network of Marine Protected Areas Managers, Mission Blue, Natural Resources Defense Council, The Nature Conservancy, Northwest Atlantic Fisheries Organization, Pew Charitable Trusts, Ramsar Convention on Wetlands, Seascope Consultants/Global Ocean Biodiversity Initiative, Secretariat of the Pacific Regional Environment Programme, SPA/RAC UN-Environment/MAP, UN Environment Programme, UN Environment World Conservation Monitoring Centre, UN University Institute for the Advanced Studies of Sustainability, University of the South Pacific, University of Strathclyde, VULCAN Inc., Wildlife Conservation Society, WWF International. The full list of participants is provided in annex II.¹

ITEM 1. OPENING OF THE WORKSHOP

8. Ms. Elizabeth Mrema, Officer-in-Charge of the Secretariat of the Convention on Biological Diversity, delivered a welcoming statement. She welcomed the experts, organizations, and Parties to Montreal, with special recognition for the Ministry of the Environment of the Government of Sweden and the Ministry of Oceans and Fisheries of the Republic of Korea for their kind financial support, which made the meeting possible. She noted that, as 2020 marked the deadline for the Aichi Biodiversity Targets, a new global framework for biodiversity was needed to carry the global community into the future with a view to achieving the 2050 Vision for Biodiversity. Ms. Mrema reminded the attendees that their work during the week would provide an important basis for the ongoing discussions under the Convention and would help to ensure that the post-2020 framework would reflect the necessary elements for marine and coastal biodiversity, making certain that the 2050 Vision of Living in Harmony with Nature would also ring true for the marine realm. Societies all around the world were intrinsically dependent on the ocean for food and livelihoods, however, this increasing dependence was undermining the very foundation of those services. She stressed that, as we laid the groundwork for the post-2020 framework, this was not the time to entrench into our outdated beliefs, but rather to think critically about what was truly needed to make the ocean sustainable. Ms. Mrema went on to note that the 2030 Agenda for Sustainable Development and Sustainable Development Goal (SDG) 14 have outlined a path towards sustainable development in the ocean and seas; in other words, the goals of the future post-2020 framework and SDG 14 would be one and the same. She acknowledged that an enormous amount of political will and experience had already been realized through efforts to achieve SDG 14, and the 2017 UN Ocean Conference and forthcoming 2020 UN Ocean Conference had further catalyzed and leveraged this political will into ambitious commitments. She concluded by recognizing that the task in front of them was not an easy one, but if they approached it with goodwill, hope for the future, and a collaborative spirit, we can seize this moment and contribute to efforts that will hopefully put the world on a path towards a sustainable future for marine biodiversity.

9. H.E. Ambassador Peter Thomson, United Nation Secretary-General's Special Envoy for the Ocean, delivered a special address. He began by thanking the experts, parties, and organizations for their participation in the workshop, with special recognition for the Governments of Sweden and the Republic of Korea, who provided the gracious financial support, which made the meeting possible. He stressed the

¹ There were a number of additional experts who were scheduled to attend the workshop, but were unable to attend due to travel-related problems.

importance of ‘getting to the heart’ of SDG 14.2, a target which called on us, by 2020, to sustainably manage and protect marine and coastal ecosystems with emphasis on resilience and restoration. He noted that the work conducted by the participants in the preceding two days, at the meeting on SDG 14, was directly relevant to the present workshop, as well as to the ongoing work of the Open-Ended Working Group on the Post-2020 Process. He went on to encourage the workshop participants to ‘be bold,’ and do their best to raise aspirations and ambition for the Post-2020 Biodiversity Framework, building on the Aichi Biodiversity Targets, but not feeling constrained by them. Ambassador Thomson then stressed that everything being done for biodiversity had to be seamlessly interlinked with what the Ocean and Climate tracks were achieving; we should be aware that probably the most important meeting for all our work is the UNFCCC’s COP26 in Glasgow. The IUCN Congress in Marseille in June and the Nature Summit in New York in September are also key steppingstones. The UN Ocean Conference will also play its part in this vital continuum. He explained that at the end of 2020, they had to be in a position to know that the biodiversity, ocean, and climate communities had acted as one in the best interests of life on earth; and to not be in that position by the end of 2020 would be a dereliction of duty of all those concerned. He concluded his remarks by reiterating that the safeguarding of the ocean’s ecosystem was an urgent international obligation. They had come to a time in human history when they had to choose between a continuation of the short-sighted linear path of consumption and production that they had been on, or to set off on the path to higher ground, a path on which they lived and worked in harmony with the other life forms and finite resources of our planet.

ITEM 2. INTRODUCTION AND PURPOSE OF THE WORKSHOP

10. Mr. Basile van Havre, Co-Chair of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework, provided an overview of progress in the preparatory process for the post-2020 global biodiversity framework.

11. Mr. Adam van Opzeeland (New Zealand) and Ms. Ilham Altho Mohamed (Maldives) co-leads for the workshop, as appointed by the Co-Chairs of the Open-Ended Working Group, then provided a presentation on the objectives and expected outputs of the workshop.

12. Ms. Lisa Janishevski (CBD Secretariat) then provided a presentation of outcomes of Workshop on Ecosystem Restoration for the Post-2020 Global Biodiversity Framework.

13. Summaries of the above presentations are provided in annex III.

ITEM 3. ORGANIZATION OF WORK AND IDENTIFICATION OF FACILITATORS

14. The workshop co-leads invited the participants to consider the provisional agenda (CBD/POST2020/WS/2019/10/1) and the proposed organization of work.

15. The workshop co-leads then informed the workshop that specific experts had been invited to facilitate discussions under agenda item 7 on basis of the expertise and experience of the workshop participants and in consultation with the Secretariat. These experts are listed in paragraph 22 below.

ITEM 4. STATUS AND TRENDS IN MARINE AND COASTAL BIODIVERSITY

16. Under this item, participants heard presentations on the various aspects of status and trends of marine and coastal biodiversity, as follows:

- (a) State of the ocean synthesis (by Mr. Simon Harding, University of the South Pacific);
- (b) Fisheries (by Mr. Kim Friedman, FAO);
- (c) Area-based conservation (by Mr. Sarat Gidda, CBD Secretariat);
- (d) Mangroves and wetlands (by Maria Rivera, Ramsar);
- (e) Coral reefs (by Emily Corcoran, International Coral Reef Initiative);
- (f) Migratory species (by Carolina Hazin, Birdlife International).

17. Summaries of the above presentations are provided in annex III.

ITEM 5. TAKING STOCK OF LESSONS LEARNED

18. Under this item, Mr. Joseph Appiott (CBD Secretariat) delivered a presentation on lessons from the design, implementation and monitoring of the Aichi Biodiversity Targets.

19. Participants then split into breakout groups and discussed lessons from the design, implementation and monitoring of the Aichi Biodiversity Targets and how this can inform the development of the post-2020 global biodiversity framework. The groups then reported on their discussions to the workshop plenary. A synthesis of these discussions is provided in annex IV.

ITEM 6. UNDERSTANDING THE 2050 VISION OF LIVING IN HARMONY WITH NATURE IN THE CONTEXT OF MARINE AND COASTAL BIODIVERSITY

20. Under this item, Mr. Basile van Havre, Co-Chair of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework, on behalf of Co-Chairs of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework, provided a presentation on the 2050 vision of living in harmony with nature in the context of marine and coastal biodiversity.

21. Following this presentation, participants then split into breakout groups and discussed the 2050 vision of living in harmony with nature in the context of marine and coastal biodiversity. The groups then reported on their discussions to the workshop plenary. A synthesis of these discussions is provided in annex V.

ITEM 7. POTENTIAL SUBSTANTIVE ELEMENTS ON MARINE AND COASTAL BIODIVERSITY FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

22. Under this item, participants split into rotating breakout groups to discuss the following thematic issues, with the support of facilitators designated by the workshop co-leads and rapporteurs provided by the Secretariat:

- (a) Exploitation of marine living resources;
 - (i) Facilitator: Mr. Eugene Nixon (International Council for the Exploration of the Sea);
 - (ii) Rapporteur: Ms. Jacqueline Grekin (CBD Secretariat);
- (b) Marine pollution;
 - (i) Facilitator: Mr. David Johnson (Global Ocean Biodiversity Initiative);
 - (ii) Rapporteur: Ms. Jordan Carper (CBD Secretariat);
- (c) Important marine ecosystems;
 - (i) Facilitator: Mr. David Obura (Coastal Oceans Research and Development in the Indian Ocean);
 - (ii) Rapporteur: Ms. Johany Martinez (CBD Secretariat);
- (d) Ecosystem restoration;
 - (i) Facilitator: Mr. Nicolas Bax (Global Ocean Observing System);
 - (ii) Rapporteur: Mr. Félix Feider (CBD Secretariat);
- (e) Area-based planning and conservation measures;
 - (i) Facilitator: Ms. Purificación Canals (Network of Mediterranean Marine Protected Areas Managers);
 - (ii) Rapporteur: Mr. Patrick Gannon (CBD Secretariat);

- (f) Threatened, endangered and declining species;
 - (i) Facilitator: Ms. Carolina Hazin (Birdlife International);
 - (ii) Rapporteur: Mr. Farah Kashaf (CBD Secretariat).

23. At each station, the breakout group discussed elements for consideration/inclusion in the post-2020 global biodiversity framework, with a focus on 2030 goals/targets, including potential options for language for such targets. Rotating breakout groups allowed all participants to discuss each of these topics. The breakout groups did not aim to achieve consensus, but, rather, focused on identifying various considerations and options for elements for potential 2030 targets as part of the post-2020 global biodiversity framework.

24. The facilitators then reported on the results of these discussions to the workshop plenary. A synthesis of these discussions is provided in annex VI.

25. Following the discussions on the above-noted topics, each participant was asked to identify one issue that they felt was not adequately discussed. On the basis of these responses, the workshop co-leads, in consultation with the Co-Chair of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework and the Secretariat, identified four issues for further discussion. Due to time and logistical limitations, not all of the issues identified by the workshop participants were able to be discussed. The four issues identified are as follows:

- (a) Regional approach;
- (b) Climate change and marine and coastal biodiversity;
- (c) Exploitation of non-living resources;
- (d) Marine spatial planning;

26. Participants split into breakout groups (self-selected) to discuss each of the above topics. Each breakout group selected a facilitator, and a note-taker was provided by the Secretariat. Following discussions, the breakout group facilitators reported back to the workshop plenary. A synthesis of the breakout group discussions is provided in annex VII.

ITEM 8. CONSIDERATIONS AND NEEDS RELATED TO MONITORING AND REVIEW OF THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

27. Under this item, Ms. Lauren Weatherdon (UN Environment Programme World Conservation Monitoring Centre) provided a presentation on considerations and needs related to monitoring and review of the post-2020 global biodiversity framework. A summary of this presentation is provided in annex III.

28. Participants then split into breakout groups to discuss the following thematic issues:

- (a) Baseline information on different aspects of marine biodiversity/ecosystems;
- (b) Data needs to support monitoring and review of progress, including indicators for targets.

29. The results of the breakout groups were reported to the plenary by facilitators. A synthesis of the breakout group discussions is provided in annex VIII.

ITEM 9. CLOSURE OF THE WORKSHOP

30. Under this item, Mr. Basile van Havre, Co-Chair of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework and the workshop co-leads reflected on the discussions of the workshop and next steps of the discussions on the post-2020 global biodiversity framework.

31. The workshop closed at 4.30 p.m. on Friday, 15 November 2019.

Annex I

ORGANIZATION OF WORK

Wednesday, 13 November 2019

Time	Workshop activity
9 a.m. - 12 p.m.	<p><i>Continuation of meeting on “Advancing Ocean Action Towards Sustainable Development Goal 14”</i></p> <p>Item 6. Review of discussions and next steps (continued from previous day)</p> <ul style="list-style-type: none"> • Presentation from Secretariat and plenary discussion on key elements of discussions from the meeting on “<i>Advancing Ocean Action Towards Sustainable Development Goal 14</i>” <p>(all participants in post-2020 thematic workshop invited to participate)</p>
10.30 - 11 a.m.	<i>Coffee/tea break</i>
11 a.m. - 12 p.m.	<p><i>Continuation of meeting on “Advancing Ocean Action Towards Sustainable Development Goal 14”</i></p> <p>Item 6. (continued)</p> <ul style="list-style-type: none"> • Breakout group discussion on key opportunities and overlaps between the Sustainable Development Goal 14 process/United Nations Ocean Conference and the CBD post-2020 global biodiversity framework <p>(all participants in post-2020 thematic workshop invited to participate)</p>
12 p.m.- 1.30p.m.	<i>Lunch break</i>
1.30 - 3p.m.	<p>Item 1. Opening of the Workshop</p> <ul style="list-style-type: none"> • Statement by Elizabeth Mrema, Officer-in-Charge, Secretariat of the Convention on Biological Diversity • Statement by Ambassador Peter Thomson, UN Secretary-General’s Special Envoy for the Ocean <p>Item 2. Introduction and purpose of the workshop</p> <ul style="list-style-type: none"> • Theme presentation on the preparatory process for the post-2020 global biodiversity framework (<i>by Basile van Havre, Co-Chair WG2020</i>) • Theme presentation on objectives and expected outputs of the workshop (<i>by workshop co-leads</i>) • Presentation of outcomes of Workshop on Ecosystem Restoration for the Post-2020 Global Biodiversity Framework (<i>by Lisa Janishevski (SCBD)</i>) <p>Item 3. Organization of work and identification of facilitators</p> <ul style="list-style-type: none"> • Co-leads note that the meeting will follow the organization of work as per the annotated agenda • Co-leads identify the station facilitators under agenda item 7, who were selected in consultation with the Secretariat
3 – 3.30 p.m.	<i>Coffee/tea break</i>

Time	Workshop activity
3 - 4.30 p.m.	<p>Item 4. Status and trends in marine and coastal biodiversity</p> <ul style="list-style-type: none"> • Theme presentations on current status and trends of biodiversity of marine and coastal biodiversity <ul style="list-style-type: none"> ○ State of the ocean synthesis (<i>by Simon Harding (University of the South Pacific)</i>) ○ Fisheries (<i>by Kim Friedman (FAO)</i>) ○ Target 11 / Area-based conservation (<i>by Sarat Gidda (SCBD)</i>) ○ Mangroves and wetlands (<i>by Maria Rivera (Ramsar)</i>) ○ Coral reefs (<i>by Emily Corcoran (ICRI)</i>) ○ Migratory species (<i>by Carolina Hazin (Birdlife International)</i>) • <i>Plenary discussion</i>
4.30 - 6 p.m.	<p>Item 5. Taking stock of lessons learned</p> <ul style="list-style-type: none"> • Theme presentation on lessons from the design, implementation and monitoring of the Aichi Biodiversity Targets (<i>by Joe Appiott (SCBD)</i>) • Breakout group discussion <ul style="list-style-type: none"> ○ Participants split into 6 groups, based on numbers assigned on their badges • Report from breakout groups and plenary discussion

Thursday, 14 November 2019

Time	Workshop activity
9 - 10 a.m.	<p>Item 6. Understanding the 2050 vision of living in harmony with nature in the context of marine and coastal biodiversity</p> <ul style="list-style-type: none"> • Introductory presentation on the 2050 vision (<i>by Basile van Havre, Co-Chair WG2020</i>) • Breakout group discussion at each table • Reporting from tables and plenary discussion
10 - 10.30 a.m.	<i>Coffee/tea break</i>
10.30 a.m. - 12.45 p.m.	<p>Item 7. Potential substantive elements on marine and coastal biodiversity for the post 2020 global biodiversity framework</p> <ul style="list-style-type: none"> • Rotating breakout groups discussion, led by facilitators and rapporteurs: <ul style="list-style-type: none"> ○ Exploitation of marine living resources ○ Marine pollution ○ Important marine ecosystems ○ Ecosystem restoration ○ Area-based planning and conservation measures ○ Threatened, endangered and declining species

12.45 - 2 p.m.	<i>Lunch break</i>
2 - 4 p.m.	Item 7 (continued)
4 - 4.30 p.m.	<i>Coffee/tea break</i>
4.30 - 6.30 p.m.	Item 7 (continued) Each person asked to write on an index card an issue that was not adequately discussed, and provide to Secretariat

Friday, 15 November 2019

Time	Workshop activity
9 - 10.30 a.m.	Item 7 (continued) <ul style="list-style-type: none"> • Facilitators report on the results of their station discussions
10.30 - 11 a.m.	<i>Coffee/tea break</i>
11 - 12.30 a.m.	Item 7 <ul style="list-style-type: none"> • Breakout group discussion on topics not fully covered during stations <ul style="list-style-type: none"> ○ 4 stations formed on the basis of proposals from index cards ○ Participants self-select which group to join
12.30 - 2 p.m.	<i>Lunch break</i>
2 - 4 p.m.	Item 8. Considerations and needs related to monitoring and review of the post-2020 global biodiversity framework <ul style="list-style-type: none"> • Theme presentation on considerations and needs related to monitoring and review of the post-2020 global biodiversity framework (<i>by Lauren Weatherdon (WCMC)</i>) • Breakout group discussion at roundtables <ul style="list-style-type: none"> ○ Baseline information on different aspects of marine biodiversity/ecosystems • Reporting back to plenary • Breakout group discussion at roundtables <ul style="list-style-type: none"> ○ Data needs to support monitoring and review of progress, including indicators • Reporting back to plenary
4 - 4.30 p.m.	<i>Coffee/tea break</i>
4.30 - 5 p.m.	Item 9. Closure of the workshop

Annex II

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*Annex III***SUMMARY OF THEME PRESENTATIONS****Mr. Basile van Havre (Co-chair of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework) – Preparatory Process for the Post-2020 Global Biodiversity Framework**

Mr. Basile van Havre gave a presentation outlining the necessary process of preparation for the Post-2020 Global Biodiversity Framework. He began by reminding the assembled participants that the development of the framework is a Party-driven process, governed by the principles of inclusivity, transparency, and knowledge-based contributions. He continued on by explaining the organization of work for the development of the framework, including rationale, timeline, external processes, thematic consultations, and the proposed structure of iterative work for framework materialization. Mr. van Havre then went on to discuss the importance of coordinated efforts with several multilateral bodies, including the Subsidiary Body on Scientific, Technical, and Technological Advice. He then made note of the key messages arising from previous consultations, including: the importance of maintaining a 2050 vision, specific procedures for the identification of relevant targets and indicators, the importance of maintaining or establishing synergies with other conventions, important notes for planning, recording, and accountability, and the suggestion to include additional topics in the Post-2020 GBF, such as gender, indigenous peoples and local communities, youth, the private sector, sub-national governments, and communication. Finally, Mr. van Havre informed the assembled participants of the co-chairs' expectations for the informational flow and discussion outcomes of the workshop, noting in particular his wish for the discourse to maintain the right balance between focus on ocean and marine issues and links with other subjects.

Ms. Ilham Mohammed & Mr. Adam van Opzeeland (Workshop co-leads) – Objectives and Expected Outcome of the Workshop

The workshop co-leads gave a presentation outlining the objectives and expectations of the meeting. This included reminding participants that the expected output was to elicit views on elements related to marine and coastal biodiversity, and where possible to produce concrete proposals, to be considered in the further development of the post-2020 global biodiversity framework. The co-leads outlined their aspirations for the workshop, stressing that this was the opportunity for “deep dives” by marine experts on the pressing issues for the marine realm under the new framework so as to effectively inform the zero draft. Participants were reminded of the treatment of marine elements in the existing framework, and asked to consider what was good, what was missing, and possible reasons why many targets were not achieved, and to keep this front of mind when considering the future framework. Finally, participants were encouraged to take an objective and collaborative approach to the week's considerations in order to produce the most useful outputs possible.

Ms. Lisa Janishevski (CBD Secretariat) – Outcomes of Thematic Workshop on Ecosystem Restoration for Post-2020 Global Biodiversity Framework

Ms. Lisa Janishevski presented key messages from the Thematic Workshop on Ecosystem Restoration for the Post-2020 Global Biodiversity Framework which was held from 6 to 8 November 2019 in Rio de Janeiro, Brazil. The key messages were of general concern for the post-2020 global biodiversity framework, and Ms. Janishevski highlighted aspects most relevant to marine and coastal biodiversity. The participants had indicated that a post-2020 target on ecosystem restoration should be outcome-oriented (e.g. for biodiversity and other benefits), should consider synergies with existing international and national commitments (e.g. NDCs), and should consider all ecosystems, including marine, among other comments.

Mr. Simon Harding (University of the South Pacific) – State of the Ocean Synthesis

Mr. Harding noted that human actions have radically changed and continue to change the state of the ocean and its marine and coastal ecosystems. The recent IPBES Global Assessment found that all recorded indicators for marine and coastal ecosystem structure showed a decreasing trend. Only 13% of the world's

Oceans are thought to be devoid of intense human impacts. The main drivers of changes are, in order of importance, direct exploitation of living marine resources, habitat modification, climate change, marine pollution, and invasive species. Interactions between drivers can be complex and lead to additive, synergistic, or antagonistic effects. Severe impacts on marine biodiversity are also predicted in response to further changes in temperature, ocean acidification, deoxygenation and sea-level rise. Some coastal ecosystems such as coral reefs and mangroves have declined markedly in spatial coverage over the last fifty years. Human activities are moving into offshore and deeper waters as technology improves and industries expand their reach. There are still many gaps in knowledge for marine and coastal biodiversity but it is clear that concerted action is required to halt its decline and reverse the trend to ensure the numerous benefits and services provided by the ocean can continue and increase in the long-term.

Mr. Kim Friedman (FAO) – *Biodiversity Mainstreaming in Fisheries for the Post-2020 Global Biodiversity Framework*

FAO in its UN role has the technical capacity and mandate to address global fisheries and aquaculture issues. This includes the development and implementation of global governance frameworks, which offer guidance for fisheries management, conservation, and renewable resource utilization. In this capacity it does not work alone and in this talk, FAO highlights the need for cross sectoral collaboration in engaging all people in delivering on biodiversity conservation aims that are foundational to global sustainable development. As such, this presentation outlined the current situation in fisheries' status and its challenges, how to approach the task of making improvements, and how the new post-2020 global biodiversity framework can link with fisheries and aquaculture actors in delivering a cooperative effort in mainstreaming biodiversity. Suggestions are offered to make sure fisheries and aquaculture is welcomed as an ally in the delivery of the post-2020 vision, and that this community is not disenfranchised from the objectives set. We need 'all on board' to achieve the vision for biodiversity conservation of our ocean, coastal, and freshwater biodiversity.

Mr. Sarat Gidda (CBD Secretariat) – *Target 11 and Area Based Conservation Measures in the Marine Realm*

Mr. Gidda delivered a presentation outlining on progress on Aichi Target 11 on area-based conservation in the marine realm. He presented status and trends with respect to progress on each of the specific elements of Target 11 based on available data, including percentage coverage of marine protected areas, ecological representation, coverage of areas important for biodiversity and effective management. He also discussed gaps in knowledge with respect to the different elements of Target 11, and how this limits our ability to fully assess all elements of Target 11 in the marine realm. He also discussed the role of different types of area-based conservation tools beyond marine protected areas, including locally managed marine areas and other effective area-based conservation measures (OECMS).

Ms. Maria Rivera (RAMSAR Convention) – *Status and Trends in Mangroves and Coastal Ecosystems*

The Secretariat of the Ramsar Convention on Wetlands presented the status and trends of mangroves and coastal ecosystems based on the brief prepared by the Ramsar Secretariat and IUCN as co-focal points of the Ocean Community on mangroves. Ms. Rivera highlighted that 50% of global mangrove coverage has been lost since 1940, which is unfortunate as mangroves contribute a multitude of benefits to many Aichi Biodiversity Targets. The Convention on Wetlands has contributed to supporting Contracting Parties to achieve Aichi Targets 10 and 11. For the Post-2020 Framework, some of the key messages include the fact that halting and reversing the loss of mangroves requires consideration of the social, economic, ecological, and political factors affecting mangrove management. Progress can be accelerated through the inclusion of a clear target halting the further net loss of mangroves and associated coastal wetlands (turning the tide towards a net increase by 2030), and key actors should also seek synergies with global processes and relevant SDGs (13, 6, 14, 15).

Ms. Emily Corcoran (International Coral Reef Initiative) – *Status and Trends of Coral Reefs*

Coral reefs support food systems, economies, human health and have important cultural significance. Following implementation of Aichi Target 10, the urgency for addressing coral reef decline remains. All recent global assessments show coral reefs to be on a catastrophic trajectory. Almost 50% of living coral has been lost since 1870 and these losses are accelerating. The Post-2020 Global Biodiversity Framework, with its milestones through to a 2050 vision of living in harmony with nature, provides an important opportunity for focused strategic action to address the pressures on coral reefs. Coral reefs are, however, highly adaptive. Removal of the direct local pressures, which currently threaten 60% of reefs globally, would give these ecosystems the time and space to be able to respond and adapt to the projections for changing climatic conditions.

Ms. Carolina Hazin (Birdlife International) – *Marine Migratory Species*

Migrants move between areas within and beyond national jurisdictions and require favorable habitats along their entire route. They are prone to cumulative threats across their route and, therefore, conservation is more challenging. Additionally, they use land for resting and breeding and, consequently, conservation efforts need to be looked at broadly and address stressors beyond the seascape. Ms. Hazin showed the following figures as for the level of threats, by group: seabirds -- 27%, marine turtles -- 85%, marine mammals -- 15%, cartilaginous fish -- 26%, tuna and billfishes -- 11%. The IUCN Red List, a key indicator of the Aichi Target 12 on species extinction prevented, shows quite alarming figures of extinction risks in various species groups. Common drivers of population decline across marine migratory species include all those major direct drivers pointed out by the IPBES report with overfishing being a significant one. A multi-level approach to conservation associated with tracking information renders positive outcomes, as in the case of recovering of sea turtles. Ms. Hazin finished her presentation by stressing that maintaining migratory connectivity is fundamental and, for that purpose, international cooperation as well as coherent governance among various jurisdictions (national and high seas) is key.

Mr. Joseph Appiott (CBD Secretariat) – *Lessons from the Design, Implementation, and Monitoring of the Aichi Biodiversity Targets*

Mr. Joseph Appiott opened agenda item 5 by giving a synopsis-style presentation of relevant lessons learned from the drafting and continued progress of the Aichi Biodiversity Targets, on the basis of documents CBD/SBSTTA/23/2, CBD/SBSTTA/23/2/Add.2 and CBD/SBSTTA/23/2/Add.4. He began by elucidating the current progress made with respect to the individual target elements within each primary Aichi Targets. He then focused on specific gaps and limitations of the targets, such as a limited focus on the benefits provided by biodiversity, a limited focus on certain sectors and limited reference to behaviour change. He then outlined several reasons for the varying levels of progress toward the Aichi Targets, such as the scope of action required for each target and the availability of (or lack thereof) financial resources and technical support. More progress appears to have been made for targets that are process rather than outcome-oriented and reaching outcome targets is significantly more challenging than reaching process targets which are largely within the direct control of governments. Mr. Appiott then reviewed insights from the above-noted documents regarding the interconnections among targets and specific target design (including SMART criteria). With respect to reporting, review, and guidance from the Convention bodies, there is greater progress for targets that have been supported by active programmes of work and subject to review by the bodies of the Convention, for targets where the Conference of the Parties regularly considers reports on progress and has provided tailored guidance in response to these reports, and greater progress for targets that have included specific strategies for resource mobilization and a set of targets, indicators, and a monitoring framework. He noted, in particular, the influence of financial resources and technical support in the successful progress of certain targets. Mr. Appiott concluded by suggesting that, moving forward, the targets should be, to the extent possible, articulated in simple and easy to understand language and should consider greater efforts to address the direct and indirect drivers of biodiversity loss.

Ms. Lauren Weatherdon (UN Environment World Conservation Monitoring Centre) –
Considerations and Needs Related to Monitoring and Review of the Post-2020 Global Biodiversity Framework

According to a recent UNEP report, 68% of environment-related SDGs have insufficient data to assess progress. Streamlined approaches can lead to more cost-effective data management and reporting across multilateral environmental agreements, and support the development of national biodiversity strategies and action plans. The recommendation to take a tiered approach to measuring targets is important as it allows us to simplify and prioritize, taking a milestone-based approach to developing the knowledge base required to reach the 2050 Vision. There are also opportunities to prioritize monitoring on the basis of synergies, and to learn from what has worked when tracking progress toward Aichi Target 11, for instance. As current knowledge products central to our understanding of global biodiversity and climate crises have largely depended on a combination of millions of dollars in investment, thousands of hours of voluntary time, and significant capacity development, it is important to recognize the need to invest in prioritized data management activities and ensure that there is a clear mandate and purpose driving these efforts. Key considerations for the post-2020 agenda, underpinned by investment in capacity-building, include: Data-dependent indicator design, adopting a tiered (national-regional-global) and milestone-based (e.g. 2030, 2040, 2050) approach to delivering global objectives; prioritizing datasets with multiple benefits, complementing remote sensing with in situ data and establishing clear mandates; and supporting collation and sharing of datasets, for use and reporting across multiple conventions.

*Annex IV***SYNTHESIS OF BREAKOUT GROUP DISCUSSION ON LESSONS FROM THE DESIGN, IMPLEMENTATION AND MONITORING OF THE AICHI BIODIVERSITY TARGETS**

The present annex provides a synthesis of the discussions under agenda item 5 on lessons from the design, implementation and monitoring of the Aichi Biodiversity Targets. It aims to present points raised in the plenary discussion and breakout groups (as reported in the plenary discussion) during this agenda item, but does not aim to comprehensively review all points raised in the discussion. These points are organized thematically with respect to the issues that they address. Furthermore, it should be noted that consensus/agreement on these points was not sought during these discussions, and that points reflected in this report do not represent points that were agreed upon among all workshop participants.

Visibility, communication and stakeholder engagement

- There has been an overall lack of visibility of the Aichi Biodiversity Targets and Strategic Plan for Biodiversity 2011-2020
- It can be difficult to communicate the value of biodiversity to people
- It is important to engage and inspire the public, including through the lens of specific issues of interest (e.g., plastic pollution)
- Youth engagement is important to elevate the visibility of global targets
- There has been a lack of trust among different interests/stakeholders engaged in issues related to marine and coastal biodiversity with respect to some specific issues
- There should be a focus on behavioral change for all stakeholders
- The development of global targets should be as transparent as possible in order to facilitate ownership and engagement by all stakeholders
- All stakeholders, and especially those whose actions are urgently needed, should feel ownership over global framework and be engaged in the process to develop it
- There is a need for enhanced synergies and engagement with other intergovernmental processes, and informal communication and coordination among these bodies could be made more formal to ensure consistent communication and synergy

Building on the Aichi Biodiversity Targets for the post-2020 global biodiversity framework

- Conservation and sustainable use of biodiversity in the marine realm is generally more complicated (multiple actors and complex dynamics) than elsewhere
- Marine and coastal biodiversity issues were not represented well-enough in the Aichi Targets
- Development of the post-2020 framework should utilize elements of the Aichi Targets that have worked well
- Need to re-work the language of the Aichi Targets so that they are meaningful, understandable and achievable
- Need to focus more on the indirect effects of the drivers of biodiversity loss
- Need to address fishing in the context of broader impacts on the ecosystem, and as fish as part of the ecosystem, not only on fish stock management

Structure and approach

- Global targets should be simple and clear, and align with the 2050 vision of living in harmony with nature
- There is a need for an incremental approach, considering the resources and needs of different countries
- In addition to outcome targets, process targets are important and should use both quantitative and qualitative data in order to adequately characterize trends
- The concept of resilience should be prevalent throughout global targets
- It is important to have numerical and qualitative targets

- Many elements of marine and coastal biodiversity should also be considered at the regional level, not only at the national level, outlining the potential need for regional targets

Linking to management and governance

- Fragmented governance makes resource mobilization and capacity building more challenging
- Regional management and governance should be better utilized to achieve global targets
- There should be a balance between specifying management approaches/processes to undertake to ensure a consistent approach, while not being overly prescriptive

Understanding/measuring progress

- There is a difficulty in assessing progress/achievement of the Aichi Targets due to the lack of baseline data in 2010 and the delay in having timely information available that truly reflects the current state of the situation
- There is a need to improve monitoring of marine protected areas and networks (e.g., scientists, managers) involved in their conservation and protection
- There is a need to simplify reporting and ensure that all Parties are able to report against the targets/indicators
- Indicators should reflect linkages across domains (e.g., land, air, and sea)
- A target/indicator hierarchy can be useful to identify where more investment is needed

*Annex V***SYNTHESIS OF BREAKOUT GROUP DISCUSSION ON UNDERSTANDING THE 2050 VISION OF LIVING IN HARMONY WITH NATURE IN THE CONTEXT OF MARINE AND COASTAL BIODIVERSITY**

Under agenda item 6, participants discussed how the 2050 Vision of Living in Harmony with Nature (shown below) applies with respect to marine and coastal biodiversity. The present annex provides a synthesis of the discussions under this agenda item in the plenary discussion and breakout groups (as reported in the plenary discussion), but does not aim to comprehensively review all points raised in the discussion. These points are organized thematically with respect to the issues that they address. Furthermore, it should be noted that consensus/agreement on these points was not sought during these discussions, and that points reflected in this report do not represent points that were agreed upon among all workshop participants.

2050 Vision of Living in Harmony with Nature

“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”

“Value” of biodiversity

- There can be many different interpretations of the term “valued”, including economic, cultural, social, etc.; More clarity is needed
- There is a need to better understand the different ways that biodiversity can be valued and to move away from focusing solely on economic values
- Improving links between nature and people, and increased education related to the human dimensions of conservation and sustainability can help to address this challenge
- Applying the 2050 Vision in the marine realm can be difficult, due to the inherent complexity of ocean systems, and the many different ways in which marine and coastal biodiversity can be valued

Level of ambition

- A thriving natural environment with 100% sustainably managed ocean
- Managing for abundance instead of sustainability
- Population recovery of certain species
- There should be efforts focused on retaining what we have and avoiding trade-offs for long-term net gain
- The increasing impacts of climate change and pollution provide major obstacles to achieving the 2050 Vision

Socioeconomic dimensions

- Socioeconomic dimensions (e.g., poverty alleviation) are a central part of the 2050 Vision
- There is a need to better mobilize and inspire actors that are not currently engaged, and to not only focus on the core biodiversity audience
- It is important to consider people’s livelihoods, to engage stakeholders at all levels, and to improve education and youth involvement
- There is a need to balance between conservation and sustainable use, and to increase trust among different sectors and stakeholder groups
- There is a need to be precautionary and ambitious, and to set ambitious goals but also be prepared for failure

Equity considerations

- It is important to achieve equity in the sharing the benefits from biodiversity
- Important to acknowledge and promote the complementary rights of people and nature

- There must be a focus not only on sustainable use of resources, but also use that is just; some actions may be sustainable but not just, such as displacement of local fishers

Annex VI

**SYNTHESIS OF DISCUSSION ON POTENTIAL SUBSTANTIVE ELEMENTS ON MARINE
AND COASTAL BIODIVERSITY FOR THE POST 2020 GLOBAL BIODIVERSITY
FRAMEWORK**

Under agenda item 7, participants discussed various potential substantive elements on marine and coastal biodiversity for the post-2020 global biodiversity framework. The present annex provides a synthesis of these discussions, but does not aim to comprehensively review all points raised in the discussion. These points are organized thematically with respect to the issues that they address. Furthermore, it should be noted that consensus/agreement on these points was not sought during these discussions, and that points reflected in this report do not represent points that were agreed upon among all workshop participants.

EXPLOITATION OF MARINE LIVING RESOURCES

Considerations

Principles

- Need for a communicative chapeau setting out principles to be applied in implementation (e.g., equity, adaptability, inclusion, social justice)

Planning approaches

- Fisheries should be incorporated into marine spatial planning and area-based management
- Utilize strategic environmental assessment, especially for new and emerging uses like ecotourism

Rights and equity

- Need to consider environmental justice for small-scale fishers and other vulnerable groups
- Traditional knowledge needs to be fully incorporated into management decisions
- Access and benefit-sharing for local communities (including for genetic resources and chemical products)

Coordination with other bodies

- Need for communication, cooperation and collaboration with relevant authorities (e.g., FAO, International Seabed Authority, CITES, regional fisheries management organizations, regional seas organizations)
- Framework should encourage stronger collaboration between regional seas organizations and regional fishery bodies, including through the Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies

Scope of focus

- Concerns expressed about focusing on one sector in isolation - common targets and indicators are preferable
- Behavioural change is needed along the full value chain— changes in demand can have a positive effect on marine ecosystems
 - Approaches such as sustainability certification can facilitate this
- Focus on fisheries should look more broadly than just commercial fisheries
- Fisheries is the major driver, but should not limit focus on human activities to only to fisheries (e.g., tourism, aquaculture)

Information-sharing

- Encourage the sharing of information, even simple ocean data such as bathymetric data to develop a common base map of the ocean floor
- There are various obstacles to data-sharing, including institutional barriers
- Some language in the framework on data-sharing could be as follows:
 - “Environmental data collected for assessment and management of marine sectors are freely available for status assessment and impact assessment”

- “Baseline information, for the purpose of understanding degradation in marine environment, environmental impact assessments and monitor change due to climate change is available by [XX] for all areas experiencing pressures from human activities.”

Potential target elements/language

- Aichi Biodiversity Target 6
 - Perhaps current wording is still valid, but we need to think more in specific milestones for it
 - Framework should focus more on milestones
 - Some of the more complex elements of the target could be elaborated in indicators
- Important to more clearly communicate concepts and in a positive way
 - E.g., “ensuring long-term sustainability of living marine resources”
 - “Sustainable use”, “halt the decline”, “put in place recovery”, “restoring”
- Time-bound recovery of species and ecosystems that have been degraded
- Environmental justice for small-scale fisheries and other vulnerable groups
- Ecosystem Approach to Fisheries (i.e., management of fisheries that incorporates a focus on species and habitats - particular attention on threatened and declining species/habitats)
- All aquatic species exposed to all forms of fishing and aquaculture - within freshwater, transitional, and marine waters - are managed for long-term persistence of robust wild populations and healthy wild habitats, including by achieving
 - i. elimination of vessels/gears that (a) remove all or most species they encounter, and (b) damage habitats;
 - ii. elimination of fisheries that operate illegally;
 - iii. elimination of harmful subsidies; and
 - iv. demonstrated improvement in the population status of all depleted species exposed to fisheries
- 100% well managed ocean, as well as focus on areas that require special attention
- All human activities are well managed and their impacts on marine ecosystems understood and subject to full life-cycle environmental assessment
- All exploited systems are at sustainable biomass levels that support biodiversity and human use
- By 2030, all direct exploitation of wild species is sustainable, legal and governed by ecosystem-based approaches, impacts for harvesting are within safe ecological limits, overexploitation is avoided and carried out without detrimental impacts to non-target species
- All environmental costs, across the lifecycle from extraction to waste treatment are internalised
- Ratification and implementation of measures such as the Port State Measures Agreement
- Straddling stocks are managed and enforced in collaboration with neighbouring States
- Environmentally-damaging subsidies should be identified and discontinued
- No exploitation of threatened or endangered species, and bycatch of these species is eliminated
- Measurable target for limiting/eliminating destructive fishing practices
- Impact of recreational fisheries is assessed and, where necessary, managed
- To ensure food, livelihoods and healthy marine ecosystems for future generations, fisheries do not have impacts on target or other species, habitats or ecosystems whose recovery is not secured if the pressure is reduced or removed, taking into account the life history and regeneration capacity

MARINE POLLUTION

Considerations

Broadening scope beyond Aichi Target 8

- Need a target that is sufficiently broad to capture the things that we cannot anticipate will become problems in the future
 - The science is much stronger and more detailed/robust related to some pollutant sources as compared to what it was when the Aichi Targets were originally drafted

- Target 8 seems to focus on excessive nutrients, but not as much on chemical pollutants, or waste/debris, noise pollution or others

Types of pollution to address

- Should address all types of pollution, including nutrients and persistent organic pollutants (POPs), heat, invasive species, heavy metals
- Could use language such as “Address pollutants/contaminants/nutrients including but not limited to...”
- Should maintain focus on nutrients as a source of marine pollution. Nutrients and eutrophication continue to be very important issues related to biodiversity in marine environments and the functioning of marine ecosystems
- We should not regress from previous priorities -- for example, if we previously identified eutrophication as a serious issue and not resolved it, we need to continue to build on that going forward
- Plastics (e.g., reducing single use plastics and plastic in fishing gear)
 - Harmful effects of plastics on migratory species and species should be highlighted
- Heat as pollution, as it is causing vast areas of the ocean to lose their oxygen
- Deep-sea mining as a source of marine pollution (e.g., sediments, oil, CO₂ release, particulates, and noise)
- Abandoned, lost or otherwise discarded fishing gear (ALDFG)
- Light as a pollution source in the deep-sea
- Sedimentation is a serious pollutant for close-to-shore environments
- May or may not be helpful to address CO₂ as a pollutant
 - Has a huge impact on marine biodiversity as a direct result of increased CO₂ (including geoengineering). However, CO₂ production is a much broader issue than appropriate for just marine pollution. May overlap/duplicate too much with other targets
 - Could include a statement in the framework acknowledging impacts of CO₂, but then refer to other conventions/processes that are more appropriate to deal with this issue
- Need for prioritization of the types of pollution to address

Synergistic/cumulative impacts

- Cumulative/compound impacts of different pollutants should be considered
- Transboundary implications need to be considered

Broader linkages—Addressing land-sea interface—Regional dynamics

- Storm water runoff from cities as a source of nutrient pollution
- Address elements of marine pollution issue related to rivers and highlands
- Should have broad target and specific indicators, which can then be adapted regionally for specific issues
- Need to establish regional baselines for each pollutant type through regional inventories

Linking to other conventions/processes/sectors

- Sector-based and regional reduction targets for things like marine litter
- Address local sewage, spills and leakages from vessels, cruise ship sewage; Some of these may already be addressed by other conventions
- Need for language that draws awareness to other intergovernmental processes, in order to mutually support the mandates of other conventions
 - Should link framework with commitments from other intergovernmental processes in order to create more cohesiveness between goals and objectives, avoid duplication in reporting, and make certain goals more achievable, sustainable, and realistic

Human health

- Highlighting linkages to human health (including through consumption of species that contain pollutants, such as microplastics) can inspire/motivate action on pollutants

Technology innovation

- Urgency for development of new technologies to reduce pollution and its impacts

Potential target elements/language

Linking target to management processes

- An outline of the process for each country/region to create an inventory of risks, impacts on species, and primary sources, with prioritization for region-specific pollution issues and an action plan linked to the most important biodiversity threats (individualized for each party and/or region)
 - Could include certain specific reduction goals, actions, or sub targets to help the countries set specific goals for pollution reduction and mitigation

Use simple and accessible language

- Language needs to be simple and accessible to the general public (e.g., “minimizing the harmful impact of pollution on the populations of coastal living marine resources as well as the associated habitats”)
- “Putting the system on a nutrient diet” instead of using technical language

Addressing sources and producer responsibility

- Need to address point sources and not where the pollution ends up
- Concrete language to specifically outline “who is responsible” / “who pays”
 - “Extended producer responsibility” (as a part of a circular economy)
 - “Full-cost accounting” (the full cost of a product is not reflected in the price of the product, the pollution, emissions, and waste associated with each product should be factored into its overall cost)
- 20% increase in the efficiency of fertilizer use

Pollution reduction

- Levels of marine pollution are not detrimental to marine ecosystems or the species that inhabit those environments
- Reduce marine pollutants to the level they do not harm and restoring, where possible, where they have caused harm
- No plastic leakage to marine systems
- Stabilization/slowing of inputs of marine litter by 2030, and actual reduction of the presence of litter in marine environments by 2050
- Establish reduction targets by timeline (e.g., “reduce x pollutant by [xx]% within a decade”)
- Feasible to reduce some pollutants and to completely phase out other (e.g., sunscreen chemicals)

Ambition

- Level of ambition could be altered depending on the pollution type (e.g., nutrient pollution could be based on a percentage of reduction, instead of ‘complete cessation’ of nutrient introduction to marine environments)
- Could have a high level of ambition (e.g., “completely eliminate marine debris at the source”)
- No net loss of biodiversity as a result of emissions/pollutants
- Encourage Parties to consider legally binding agreements for addressing matters related to marine pollutants

Resilience as a means to address pollution impacts

- Building resilience, maintaining resilience, conferring resilience, assessing and mitigating vulnerabilities
- Encourage nature-based solutions for addressing pollution, as coastal habitats are good pollution filters/barriers

Address present pollution and impacts already felt

- Restoration is particularly important. It is not enough to stop polluting action, we also need to think about regenerative action

- Restoration of wetlands as mitigation strategy for reducing nutrient runoff
- Address the potential for bioremediation of marine pollutants

IMPORTANT MARINE ECOSYSTEMS

Considerations

- Framework should make a specific reference to important marine ecosystems and coastal ecosystems
- Comprehensiveness, adequacy and representativeness are important dimensions of coverage for marine ecosystems

Linking to CBD goals

- Conservation
 - 30 x 30 – managed as intact and functional natural ecosystems (‘protect the best’, net gain)
 - 100% critical habitats protected
 - All invasive species are under control
 - Representative protection of ecosystems
 - Positive trends in ecosystem integrity
 - Reduced pressures
 - Climate adaptation programmes/systems developed and integrated
 - Measurable targets – spatial extend, integrity and key benefits. Set targets to increase these to specific levels/percentage improvements
- Sustainable use
 - ‘Improve the rest’ (70 x 30) – net gains for nature and people across production landscapes
 - Human activities directly or indirectly impacting ecosystems sustainably managed
 - Nature-based solutions
 - Legislative frameworks including strong requirements for environmental impact assessment
 - Implement measures to resolve illegal and unsustainable fishing
 - Implement Port State Measures Agreement
- Access and benefit sharing
 - Connectivity between ecosystems, species and genetic systems
 - Ecosystems services and benefits are restored and equitably (and sustainably) used
 - Conflict resolution mechanisms needed among the many users of ecosystems
 - Stacked/co-benefits from many ecosystems can support equitable benefit-sharing
 - Benefit sharing should not undermine ecosystem integrity
 - Access and benefit-sharing for genetic material
 - Improve research and knowledge growth, including in support of the Nagoya Protocol on Access and Benefit-Sharing
 - Connectivity between ecosystem should also consider genetic connectivity between species in the ecosystem

Which important marine ecosystems to address?

- Use of EBSAs in identifying these
- Functional landscapes
- Vulnerable sensitive ecosystems, threatened/damaged ecosystems
- Key structural components of ecosystem (e.g., corals, mangroves)
- Ecosystems beyond coastal areas – include pelagic/surface and deeper systems -vertical, horizontal and migratory connectivity
- Key locations are important, such as aggregating, spawning and calving sites
- Habitats that support threatened, endangered and declining species
- Coral reefs can act as a flagship/sentinel ecosystems, as reefs can indicate health of other ecosystems

- Focus should be put not only on globally important ecosystems, but also regionally important ecosystems (e.g., in semi-enclosed seas)
- Specific types of ecosystems of concern include:
 - Coral reefs
 - Mangroves
 - Seagrass
 - Sand dunes and sandy shores
 - Intertidal zones
 - Mud flats
 - Dynamic pelagic systems
 - Lagoon estuaries
 - Kelp
 - Beach forest ecosystem
 - Offshore submerged reefs
 - Marine areas beyond national jurisdiction (ABNJ)
 - It was noted by some participants that the development of the post-2020 framework should not prejudge the ongoing deliberations on an international legally binding instrument on the conservation and sustainable use of biodiversity in ABNJ
 - Deep-sea ecosystems, including hydrothermal vents, seamount, deep sea coral, manganese nodules
 - Open-sea ecosystems
 - Ecosystems important to migratory/mobile species, particularly in relation to key points in their life cycle

Focus on biodiversity and ecosystem services

- Services are not only environmental/ecological, but also social, economic, cultural
- Importance of ecosystem integrity for delivery of services
- Useful to determine the value/utility of restoration for specific degraded systems (i.e., what services can be gained from multiple perspectives through restoration)

People – nature values

- Bio-cultural ecosystems, in view of the cultural dependence on ecosystems, are important to safeguard from pressures
- Considering ecosystems as “outside” or “other” to people is not conducive to the change that is needed,
 - Need wording and communication that is more integrative, and inclusive of various cultures and knowledge systems
- Indigenous and Conserved Communities Areas (ICCAS) are good examples of considering humans as part of the ecosystem
- Important to incorporate community beliefs about ecosystems, including through use of traditional knowledge
- Importance of engaging indigenous peoples and local communities through planning and decision-making, as well as recognizing broader public interests in healthy ecosystems
- Should recall that the use of the word “protect” can be interpreted by some use communities as “exclude” (people) regardless of whether those people may be good custodians of the ecosystem
- Cultural dependence on ecosystems

Landscapes and seascapes connectivity

- Connectivity is vital for life cycles of species, in particular migratory species
- Should consider three-dimensions of marine ecosystems (e.g., water column and the seafloor)
- Important to recognize land and sea connection – seascapes/landscapes; Ridge to reef and watershed approaches

- Connectivity among shallow water ecosystems is important for many species—coral reefs, seagrasses, mangroves and other associated ecosystems

Threat-based approach

- Threat-based approach for targets can help cut across multiple ecosystems, and ensure all pressures are addressed
- IPBES typology of drivers/threats could be used as a main classification, within which sub-categories could be identified as locally relevant
- Both global and/or local degree of threat should drive degree and speed of action, as threats are context-dependent; Targets should allow for flexibility
- Importance of considering/addressing impacts of climate change on important marine ecosystems (including high temperatures, coral reef bleaching, sea level, acidification)
- Threats to consider can include land-based pollution, trans-boundary pollution, noise pollution for marine mammals from oil exploration, overfishing, over harvesting, unsustainable fishing practices, tourism activity, invasive alien species

Islands, including small island developing States (SIDS)

- SIDS/islands should be mentioned as specific regional/contextual examples
- Need to consider SIDS in goals / targets as well as in prioritization of key issues/areas to address
- Islands place high importance on contribution of marine and coastal ecosystems to livelihoods and other services they provide

Governance

- Important to emphasize the equal representation of indigenous peoples and local communities and other minorities in governance
- Ecosystems that span the land and sea in the coastal zone need an integrated management approach with multiple agencies responsible for land and sea, and different components of them
- Governance should be cross-sectoral, across all governance levels, have a coherent and integrated approach, be focused on ecosystems, include regional implementation of global targets and manage the uses and activities. It also should link with sectoral understanding of “critical habitat”
- Lack of knowledge on deep-sea ecosystems hinders the ability for comprehensive governance of deep-sea mining and application of the ecosystem-based approach to management of deep-sea mining
- COP should decide/identify targets at a global level, then Parties should decide how to translate these at the local level; need frameworks that allow for this domestication
- Need provision of tools/guidance for progressing multi-sector action/coordination

Potential target elements/language

- Results-based approach can help identify different timescales for target results, linked to the 2030 goals and 2050 vision, for example:
 - Inputs (5-10 years)
 - Outputs (5-20 years)
 - Outcomes (10-20 years)
 - Impact (30 years)

Progression over time

(Particularly important where initial trends are negative, e.g., coral reefs)

- Example of phased targets:
 - 2030—Threat abatement--Halting/slowing loss
 - 2040—Reversing/halting loss – net gain--Recovery, restoration
 - 2050—Net gain
- Outcome-based
 - By 2030 ...

- [halt decline][maintain][improve]
- function, resilience and integrity,
- benefits to people [outputs][services]
- marine and coastal ecosystems (could indicate specific ecosystems, like coral reefs)
- Longer term (2050 goals)
 - 100% sustainable harvesting/ management of ecosystems
 - mitigation and adaptation to climate change
 - ecosystems benefiting from healthy environments with sustainable human activities
 - E.g., landward migration of mangroves

Conservation

- By 2030
 - Target that deals with protection and restoration of key carbon habitats (e.g., mangroves, seagrass)
 - Need measurable targets, such as for spatial extent of key habitats and benefits generated
 - Establishment of baseline knowledge on important ecosystems (by 2025)
 - Net gain for nature can be achieved by protecting the best and improving the rest, although such an approach/language may not be acceptable to all
 - Reduced pressures on biodiversity and ecosystems
 - Positive trends in ecosystem integrity
 - Identification and management of 30% of ecosystems as part of a network(s) of protected areas that are well-managed, well-connected (representative, coherent and functional);
 - Protect 30% of marine areas as intact and functional natural ecosystems (in line with IUCN Resolution 50, which calls for highly protecting 30% of each marine habitat by 2030)
 - Protected areas and other effective area-based conservation measures
 - 100% critical habitats protected
 - Representative protection of ecosystems
 - All important/key areas/ecosystems are covered by MPAs (although it can be difficult to determine which ecosystems to prioritise)
 - Metrics to measure connectivity in marine environment
 - Climate change adaptation programmes/systems are well developed and integrated
 - Providing nature-based solutions to climate change
 - Eradicating invasive alien species
 - All invasive species are under control (difficult to achieve eradicated, but controlled)
 - The intensity of the main drivers of habitat loss or damage have been reduced
 - The distribution and condition/state of the important marine ecosystems has not decreased by 2030 (e.g., coral reefs, seagrasses, mangroves, breeding, foraging and migration areas)
 - No net loss of mangroves
 - Integrated management at the land-sea interface needed
- By 2050
 - 100% sustainable harvesting
 - 100% sustainable management of ecosystems
 - Provide space for landward expansion of mangroves due to sea level rise
 - Ecosystems benefiting from healthy environments with sustainable human activities
 - Mitigation and adaptation to climate change

Sustainable Use

- By 2030
 - Nature based solutions and approaches are implemented
 - Zero disposal of land/sea-sourced pollution
 - Legislative framework including strong EIA laws implemented

- Strategic environmental assessment used
- Implement measures to reduce illegal and unsustainable fishing
- Port State Measures Agreement implemented
- Human activities directly or indirectly impacting ecosystems are sustainably managed

Access and benefit-sharing

- Ecosystems services and benefits are restored and equitably and sustainably distributed among all
 - Conflict resolution mechanisms among the many users of ecosystems
 - Ecosystems that provide co-benefits satisfy many users

Examples for focus on coral reefs

- By 2030, Parties have established and are implementing plans to maintain the current [and/or future] function and integrity of [coral reefs and associated ecosystems][ecosystems] demonstrated by key metrics of ecosystem health and resilience, against appropriate benchmarks
- By 2030, Parties are implementing strategic actions, at multiple scales, to maintain the integrity and function of the planet's coral reefs using key metrics of reef health, such as maintaining or increasing live hard coral cover, structural complexity and reef fish biomass against appropriate benchmarks.
- By 2030 Parties have built up adequate capacity and cross-cutting mechanisms at the national level to implement the agreed coral reef programme of work, with support from regional and international bodies]
- By 2040, the direct pressures on coral reefs and associated ecosystems are reduced to safe biological limits on [XX]% of their spatial area
- By 2050, all direct pressures impacting coral reefs have stopped; no further net loss of coral reefs with signs of recovery against appropriate benchmarks

ECOSYSTEM RESTORATION

Considerations

- Restoration should not be a substitute for losses elsewhere (i.e., “no net loss” can be problematic)
- Mainstream restoration within management
- Restore connectivity across freshwater and marine systems
- Improved understanding of ecosystem dynamics would support restoration outcomes
- Should link to other conventions and agreements

Key habitats to restore can include:

- Mangroves
- Coral reefs
- Seagrasses
- Kelp forests
- Coastal lagoons
- Saltmarshes
- Coastal dunes
- Breeding banks

Benefits of restoration

- “Stacked Benefits” (“stacked outcomes”) presents different levels of values to different parts of society
 - Enhancing fisheries
 - Carbon caption
 - Coastal protection, against storm surges, hurricanes, other climate change-related threats
 - Social and economic benefits fisheries, healthy fish stocks
 - Reduced vulnerability against invasive alien species

- Intrinsic value
- Improved ecosystem functioning.
- Human well-being
- Biogeochemical cycling
- Recovery (including biomass recovery)
- Clean water (e.g., through oyster beds)
- Job creation and generation
- Resilience—Economic resilience, but also resilience to anthropogenic pressures

Restoration in a broader context

- Restoration serves as a tool to conserve biodiversity. Restoration is not useful when habitat loss continues; It is important to first prioritize habitat protection, then restoration
- Restoration is not only about rebuilding lost habitats; it is also about restoring degraded habitats
- Understand where restoration sits in the mitigation hierarchy (i.e., avoid, mitigate, restore; Priority should be to avoid and mitigate ecosystem degradation)
- Polluters should be held responsible for restoration of degraded habitats, and should implement and fund restoration
- Address the underlying causes of biodiversity loss and ecosystem degradation. In some areas, once the underlying cause is taken away, nature can restore itself, although, natural restoration is not always feasible/realistic/possible in some contexts
- Fisheries management could be considered one form of ecosystem restoration, as this has worked well in some cases
- Some ecosystems (such as coral reefs) may be almost totally lost due to impacts such as climate change; Restoration should be prioritized and should use ex-situ conservation as a fail-safe, as well as selective breeding, human assisted evolution and genetic modification

Challenges and impediments

- High cost
- Lack of market access, drives up cost, unitise price, offer market access
- Misunderstanding by authorities, who may not fully understand the value of ecosystems and their services and benefits,
- Poor governance
- Restoration projects not monitored efficiently, so the same mistakes continue to be made
- If restoration is used in wrong context, it can lead to perverse and destructive incentives (e.g., restoring commercially valuable species could have an unintended consequence of driving future impacts on ecosystem through enhanced exploitation)
- Can be difficult for some areas to prioritize coastal restoration above disaster reduction efforts (which are often not nature-based in certain places)
- Legislative barriers to restoration exist, inhibiting restoration of historically present habitat when new habitat that took over after the original ecosystem's complete degradation is under protection

Adapting to changes

- Should accept that range shifts will occur, with new ecosystems in different geographical ranges
- Altering ecosystems to adapt them to new environmental condition is important
- Difficult to determine where to restore degraded ecosystems to past ecosystems health/makeup and alternatively where to restore by introducing better suited species to the current environment
- Alternative of restoration is doing nothing; Replacing a degraded ecosystem by another more suitable ecosystem (for new environmental conditions) is better than doing nothing

Nature-based approaches and technology innovation

- Start restoration but allow for nature to restore itself. Restoration is allowing for nature to heal. Highlight nature-based restoration solutions. Active restoration only works if nature is given the opportunity to continue to thrive after efforts are completed

- New tools (e.g., satellites, technical tools to support prioritisation) should be used to identify potential areas more conducive for restoration efforts
- Mapping of biodiversity hotspots
- Fast paced technological advances in restoration are available, and need to be utilized and shared more efficiently

Incentivising restoration

- Should better utilize financial incentives for businesses, as well as payment for ecosystem services
- Industry can play a major role in offsetting impacts, although the use of offsets can be controversial
- Important to integrate language that business can relate to (not only the conservation community)
- Corporate Social Responsibility and certification of business practices should be utilized
- Translate restoration language so it becomes an investable green commodity
- Market access is feared to open up the opportunity for some nations to continue business as usual while investing in other areas and still achieve no net loss
- The value of ecosystem services to industry/private sector needs to be better communicated to them (e.g., industries pay for ecosystems to clean water, their runoff is cleaned, and ecosystems are restored)

Carbon storage

- Blue carbon investment for coastal ecosystems
- Capitalize on increasing attention on carbon stocks (e.g., mangroves)
- Blue carbon is a potential area of synergy between CBD and other convention
- Restoring functioning/healthy carbon rich ecosystems that deliver benefits to people (e.g., fish nurseries, storm surge protection, sustain livelihoods, sequester carbon)

Community engagement

- Community agreement/engagement for restoration for sustainable use of ecosystems, including for seagrass beds and mangroves
- Local communities should not be displaced because of restoration, as can often be the case. Should ensure equity in restoration
- Promote traditional knowledge in restoring ecosystems, local ecological knowledge, nature-based solutions, which can often work better than technological solutions
- Restoration needs to consider governance structures as well, and give control of ecosystems back to local communities and indigenous peoples.

Restoration in the context of the 2050 vision

- Maintain habitats that cannot be restored
- Establish a financing mechanism for restoration
- Emphasize carbon rich ecosystem restoration, especially in short term
- Restoration serves as a tool to achieve a range of targets, including nature-based solutions to global change
- Restoration is a part of the ultimate goal where marine ecosystems and their services are correctly valued in political systems for their benefits they provide to communities, biodiversity, ecosystem resilience and natural capital

Potential target elements/language

- Ensure in chapeau that restoration of freshwater and marine ecosystems is not discounted
- Retain Aichi Target 15, but include a specific reference to coastal and marine ecosystems
- Make specific reference to coastal and marine ecosystems
- Link restoration with climate change adaptation and nature-based solutions
- Increase ambition to 30% or 50% of ecosystems restored
- Process driven target important, with multiple steps/milestones along the way
- Ecosystems no longer degraded by 2050, so that no more restoration is necessary in 2050
- By 2030, policies for restoration are well established

- Restore structure and function of ecosystems for healthy oceans and the benefit of man in a changing environment in the shortest possible time, using a strategic approach with the most scientifically useful technology.
- By 2030 targets for restoration and halting decline have been met, and significant restoration efforts have succeeded in reversing the observed decline in important marine ecosystems
- Maintain functionality of ecosystems through restoration, including species/groups in original proportions
- By 2030, all degraded habitats are restored
- One percentage target may not be realistic; Different targets for different ecosystems
- By 2030, 50% of species of coral species are captured in seedbanks
- Target needs to include both aim to restore ecosystems and aim for no net loss; target should not set negative incentives
- Target, instead of no net loss, aim for maintain or net gain
- Ex-situ conservation and maintain genetic diversity as a fail-safe, although this should not replace restoration efforts
- Restore structure and function of healthy ecosystems in a changing ocean
- Restore hardened river and coastal banks, bring back biodiversity, nature-based solutions for coastal protection/erosion. Make restoration part of continuing human activity on shorelines and riverbanks.
- Restore the structure, processes and functioning of ecosystems within the shortest time for the net benefit of man, using the most scientifically useful technologies
- To maintain functionality of ecosystems through restoration in order to keep equilibrium or percent of organisms at their original pre-degradation levels
- Restore connectivity along freshwater and marine systems
- Identify and prioritize areas for restoration and enhance ecological integrity (including connectivity)
- Halt destruction of intact coastal habitats and restore healthy habitats by 20% including ecological benefits
- Identify areas prone to degradation and prioritize these in restoration processes, by conducting progressive restoration
- Restoration is in progress of wetlands, restoration of all benefits, by 2030
- Sufficient financial flows are available to deliver effective restoration activities
- By 2030, targets for restoration and halting decline are met with significant restoration efforts to offset the declines in marine ecosystems already observed have succeeded
- By 2030, drastic increase of areas where mangroves and seagrass beds are restored
- By 2030, policies for restoration are well established
- By 2030, restoration will give a second chance to nature
- Considering climate change, ensure the health and viability of ecosystems and habitats by restoring these and or interconnected ecosystems that support said habitat
- By 2030, we should see the effects/some evidence of the restoration efforts. Restoration to be measured, progress assessed, include measurable impacts
- By 2030, the areas where restoration can be the most cost efficient are identified with restoration progress
- By 2030, targets for protecting and halting decline are met with significant restoration efforts to offset the declines in important marine ecosystems already observed and recorded
- By 2030, all degraded marine ecosystems and habitats are successfully restored
- By 2030, areas in need of restoration and/or protection are identified and prioritised based on domestic values and guided by global needs to halt and/or reverse decline of ecosystems
- Appropriate and responsible restoration within the context of a broader management initiative
- Inclusive and participatory rights-based approaches
- By 2030, better understanding of marine ecosystem dynamics to inform restoration
- Identify areas that require restoration to halt decline in important marine ecosystems

AREA-BASED PLANNING AND CONSERVATION MEASURES

Objectives and areas/issues of focus

- A coherent set of nationally (and regionally) agreed goals and objectives
- Management should be tailored/targeted to the intended outcome
- Should have attainable milestones to celebrate every 5 years
- Focus on areas of high biodiversity values (including cultural)
- Focus on areas important for threatened and endangered species; and vulnerable areas/ecosystems
 - Ecologically or Biologically Significant Marine Areas (EBSAs) and marine Key Biodiversity Areas (KBAs), vulnerable marine ecosystems (VMEs)
- Retention of intact wild areas
- Addressing range of pressures, including climate change and underwater noise
- No net loss of biodiversity in an area (basin, etc.) due to human activities, but keeping in mind unavoidable effects (e.g., climate change)
- Need to address socio-economic and cultural objectives
- Ensure that conservation objectives consider growth/recovery of biodiversity; not only preservation
- Address the particularities of the marine environment
- Consider multiple dimensions of the marine environment (e.g., vertical, horizontal, migrations)
- Take into consideration rights (e.g., traditional access rights, fishing rights) and equity issues
- Societal interests, social justice, etc. should be included in overarching principles

Types of area-based conservation measures

- MPAs, including fully/highly protected areas
- Other effective area-based conservation measures (OECMs)
- IPLC-managed areas (e.g. ICCAs/LMMAs)
- Private conservation areas
- Multiple-use protected/managed areas
- Fully protected may not an option in many places--Utility of no-take zones depends on context
- Need for clarity around the use of language (e.g., OECMs, ABMTs, etc.)
 - There are very many different terms and designations being used in use
- Sensitivity in language—Calling OECMs ‘conserved areas’ may alienate sectoral stakeholders
- Different types of measures can be used in different places (e.g. zones for conservation; zones for sustainable use; zones available for transformation, etc.)
- Separate but related targets for terrestrial and marine protected areas
- Effectiveness of area-based conservation measures depends on uptake across sectors
- MPAs need to be linked with sustainable management outside MPAs
- MPAs within the broader landscape and seascape
- Should address in the context of marine spatial planning and integrated coastal management
- Issues related to genetic resources should be considered related to transboundary issues
- MPAs are useful as environmental/ecological reference areas

Percentage targets

- 100% sustainably and equitably managed... of which [XX]% is managed as MPAs and/or OECMs
- No single % target will work if rest of the ocean is not managed --“Protect the best, improve the rest”
- [XX]% under a range of area-based measures
- Target needs wording needs to include "at least 30% land and sea by 2030", in line with 2016 IUCN Resolution
- 30% as entire ocean or only for national jurisdiction?
- 30% highly or fully protected network of MPAs (fully = no extractive use)

- 30%, with a specific % subset as no-take MPAs
- 30% of each ecoregion are conserved through...
- 30x30 target should focus on the best areas/most in need---Also helpful for communication
- 30% a midway point, as some countries have a higher level of ambition
- 30% no-take would not be acceptable to some
- 30% target of different types of area-based conservation measures initially, then “ratchet up” regarding % of no-take MPAs
- 30% of each ecoregion are conserved through...(representativity and percentage should be linked)
- 30% of MPAs and OECMs, including 10-15% of areas providing socio-economic services/benefits
- 30% target for identification—20% target for management/implementation
- Need to consider percentage highly protected; percentage w/ management plans (as indicator), and other qualitative elements with indicators
- By [XX], achieve healthy and sustainable marine ecosystems with 100% of the ocean under sustainable management, including XX% in MPAs and OECMs, in accordance with national circumstances

Quality

- Need to find a better quantitative way to measure and track all elements of area-based conservation
 - Establish headline “jeopardy” indicators
- Need to focus on quality, in particular effectiveness (i.e., avoid paper parks), and effective ways to monitor
- Emphasize and strengthen qualitative elements: effective management, governance, importance for biodiversity and connectivity
- Some qualitative elements, such as equity, belong at the planning level
- Difficult to address all important aspects of quality in the target language itself
 - Would lead to a very long target that is difficult to communicate
- Could split various elements of area-based conservation issue into several targets
- Could focus on qualitative elements in more detail in supplementary guidance/guidelines
- Reflecting qualitative elements in quantitative targets (“30% of each ecoregion are conserved through...”, “100% sustainably and equitably managed”)
- Financial sustainability of MPAs is critical

Representativeness

- XX% of each ecoregion or ecosystem are conserved through... (or goals set at regional or basin-level)
- % of specific habitats (for representation)
- Link % targets to specific ecosystems or habitats (for a balanced and representative network)
- Need more specific criteria for assessing “ecologically representative” component
- Consider lessons from other intergovernmental processes, such as work under the Ramsar Convention on identifying and designating underrepresented wetland types as Wetlands of International Importance
- Need more specific criteria for assessing “ecologically representative” component
- Identify and designate % of ecosystems underrepresented in area-based conservation measures
- Designate and implement at least 30% of each marine habitat in a network of highly protected MPAs and other OECMs, with the ultimate aim of creating a fully sustainable ocean, at least 30% of which has no extractive activities, subject to the rights of indigenous peoples and local communities
- Identifying important areas for protection requires regional/basin-scale coordination (for representativity, etc.)

Stakeholder engagement, equity, inclusiveness

- Need for wider stakeholder engagement and bringing in different sectors, as many stakeholders are not engaged in/following work under the CBD

- Need to provide recognition for positive action in area-based conservation being taken by other sectors (e.g., fishing sector)
- Community participation in planning and ranking of community priorities
- Considering traditional and local knowledge, including while preparing national plans
- Respectful use of traditional and local knowledge in all aspects of area-based planning and conservation
- Take into consideration rights (e.g., traditional access rights, fishing rights) and equity issues
- Engagement of youth and women
- Address the special circumstances of SIDS

Connectivity, networks and integration

- Include concept of networks (i.e., spatial, ecological)
- Integration of land-based activities in coastal/marine spatial planning (integrated coastal management, ridge to reef approaches, addressing impacts from terrestrial areas on the ocean, linking with terrestrial protected areas)
- Need to account for the dynamic nature of marine environment and impacts of climate change, as this may cause shifts in species and habitats to be protected
- Consider 3-D (vertical, horizontal, migratory connectivity) dynamics
- Consider dynamics of moving species/ecosystems
- Need for an integrated approach across jurisdictions, sectors and governance types
- Transboundary issues/cooperation; Combine MPA and MSP for management at the ecosystem level
- Ecological connectivity, including regional and ocean basin level connectivity
- Regional approach; basin-scale analysis and design
- Enable networking (e.g., managers, policymakers, scientists) at the regional, ocean basin and global levels to support implementation
- Regional approach in order to address similar capacity needs, geographic connection (important for capacity development, reporting, etc.)
- Need for regional connectivity not just for biodiversity or ecological processes, but also political, institutional cooperation and collaboration
- Aichi Target 11 has been interpreted as each country implementing in its own national waters; Alternately, the post-2020 framework could take a regional and/or basin-scale approach
- Barrier to regional approach may be related to limited coordination/cooperation from different departments within governments and between nations
- Identify buffer zones around MPAs and include specific management actions for buffer zones

Planning approaches, including marine spatial planning

- Marine spatial plans could further incentivise the creation of MPAs, and serve as a means to ensure connectivity, representation, etc.
- 100% of marine area managed sustainably; Whole-ocean/whole-EEZ planning
- 100% sustainable management, with varying levels for different tools/approaches within this
- Separate goals / targets for marine spatial planning and area-based conservation, as spatial planning can be used to achieve many objectives
- Combine MPA and MSP for management at ecosystem level and transboundary area cooperation
- MSP focuses more on managing trade-offs between different interests/activities, rather than solely on biodiversity conservation
- Use of integrated coastal management and strategic environment assessment

THREATENED, ENDANGERED AND DECLINING SPECIES

Considerations

- Unique aspects of marine and coastal species and ecosystems should be captured in the framework

Migratory species connectivity

- Highly mobile species should be protected during their entire life cycle
- Need to maintain migratory connectivity
- Link area-based conservation target to migratory species

Relevant scale

- Consider differences in trends at species vs. population level
- Take into account the horizontal and vertical distribution of species
- Consider spatial and temporal scale relevant for conservation
- Consider species at the ecosystem level rather than the national level
- International, cross-jurisdiction and cross-sectoral cooperation is needed
- Balance harvest by size distribution of species, as the function of the ecosystem depends on the size of the population
- Target to measure the abundance of native species by area or population
- To preserve a population, we must consider the size of the population and the genetic diversity within the populations (which improves resilience)

Behavioural change and reducing pressures

- Need to address sectors/activities that are driving species extinction
- Species subject to exploitation should be utilized in a way so as not to increase their threatened status
- Consider emerging diseases as a threat
- Take a sector-based approach to addressing threats to species
- Utilize traceability to improve industry accountability
- Behaviour change is needed by consumers (i.e., reducing/eliminating consumer demand for threatened and/or declining species)
- Communication with local communities is key, including in terms of implications of cultural preferences and perceptions for food habits
- Need to promote evidence-based interventions to improve human-wildlife interactions
- Need to prioritize ecosystems that are facing the highest pressures
- Effects of climate change on species/populations need to be taken into consideration
- Address different forms of pollution as drivers of biodiversity loss
- Need to halt the spread of invasive alien species through vector control and ballast water regulation
- Address unsustainable fishing as a predominant driver of marine biodiversity loss

Improving the status of species for broader benefits

- Bending the curve or slowing rate of extinction
- Recover and rebuild species to provide benefits for the environment and people
- Conserve key species for maintaining ecosystem function
- Consider the social, economic and cultural role of species
- Protect broad groups of species, including undocumented and abundant ones, in addition to focusing on threatened species using the IUCN Red List as an indicator
- Focus conservation and restoration efforts on keystone species that are more valuable to the functioning of the ecosystem
- Consider ex-situ as well as in-situ conservation, with a focus on in-situ conservation
- Need to consider animal welfare
- Consider value of species in different forms (e.g., economic, ecological, cultural), and communicate this value through the framework

- Should look to “flagship” species that can serve as an indicator for negative trends in other species and broader systems, as well as “keystone” species that are critical for the ecosystem
- Studying conservation genetics is needed to identify threatened species, but this is difficult to do for some countries because of lack of capacity; Requires cross-border collaboration in the case of transboundary issues (e.g., land-sea) and migratory species
- Difficult to have a target that encourages bringing population levels back to baseline level because there is limited data on what the baseline level is
- Need to have baseline information on species status and threats affecting them
- Setting a target to prevent all extinction may not be realistic, although only focusing on limiting extinction rate may be seen as not ambitious enough (i.e., perhaps should not be an “acceptable” level of extinction)
- Positive framing of the targets: rather than counting species going extinct (i.e., IUCN Red List), count species that are being protected (“green list”)
- There are many data gaps on various species, including lack of data on the number of species/extinctions in the world
- Information on baselines and trends is needed to monitor the conservation status of all species/populations

Enabling conditions – means of implementation

- Environmental laws and regulations should fully consider all species and their interactions
- Key to involve communities that are (or should be) involved in species management
- Raise awareness / education of the wider society for species protection
- Capacity building is needed for species identification and rescue
- Need adequate financing to ensure conservation
- Need for cross-sectoral and cross-jurisdictional collaboration, including in marine areas beyond national jurisdiction
 - It was noted by some participants that the development of the post-2020 framework should not prejudge the ongoing deliberations on an international legally binding instrument on the conservation and sustainable use of biodiversity in ABNJ
- Much generate synergies with other international processes/agreements (e.g., CITES, Convention on Migratory Species)
- Should have actions under each target in the framework

Potential target elements/language

- Ensure that 80% of species are in a healthy status
- Maintain or recover species populations to healthy levels
- Halt overall species population declines by 2030, prevent human-driven extinction of known threatened species and improve the status of 30% of known threatened species
- Number of threatened marine species declines by 15% by 2030
- By 2050, improve conservation status of 75% of threatened species
- Species that provide regulation services are maintained, restored/recovered to levels that support ecosystem functioning
- Reversing the trends of species loss
- Halt spread and control populations of invasive alien species
- By 2030, update IUCN Red List assessment and develop recovery plans for all threatened species
- By 2050, improve conservation status of 75% of threatened species
- By 2030, management actions are taken to maintain or recover endangered species and control actions for invasive species
- Ensure 80% of species in a group maintain a healthy status
- The number of threatened species (as indicated by the IUCN Red List) declines by 15% by 2030

- Species subject to exploitation are utilized in a manner so as not to increase their threatened status
- Vast majority of native species and their habitats are thriving and able to withstand or adapt to increasing pressures
- Halt overall species declines by 2030, prevent human-driven extinctions of known threatened species, and improve/recover the status of 30% of known threatened species by 2030
- By 2030, stop the decline of the current number of species
- By 2030, coverage of vulnerable ecosystems is maintained (e.g., coral reefs, mangroves, sea grass)
- By 2030, habitats of commercially important marine species are managed or protected
- By 2030, species at all levels are valued and protected and sustainably used, and threats to them are addressed with respect to: connectivity, economic value, and best available science
- By 2030, reduce extinction and improve ecosystem function by reducing impacts that threaten vulnerable (endemic) keystone species, accounting for species-specific variables, such as range, migrating behavior, reproductive biology, population size, and size representation within species
- Halt overall species declines by 2030, prevent human-driven extinction of known threatened species and improve the status of 30% of known threatened species
- By 2050, the number of known species at risk of extinction due to anthropogenic activities has reduced to zero
- By 2030, the proportion of species whose status has stabilized or improved has increased by [XX]%
- By 2030, no loss of species, improved health of threatened species, and sustainable management of species
- States have identified species and threats requiring more active protection or restoration measures, and have prioritized and/or implemented actions
- All aquatic species exposed to all forms of fishing and aquaculture – within freshwater, transitional and marine waters – are managed for long-term persistence of robust wild populations and healthy wild habitats
- All species protected in the ecosystems
- Highly mobile species protected during all their life cycles (linked to area-based conservation targets)
- Species that provide habitat and/or regulation services are maintained or restored to levels that support ecosystem functioning
- Maintain and recover species to healthy levels to maintain ecosystem function and integrity
- Manage for abundance and recovery
- Target to prevent all extinctions
 - Alternatively, focus on bending the curve to slow down the rate of species extinction rather than stopping it entirely, which may not be realistic
- Target on the major threats/drivers of biodiversity loss
- All aquatic species exposed to all forms of fishing and aquaculture - within freshwater, transitional, and marine waters - are managed for long-term persistence of robust wild populations and healthy wild habitats, including by achieving
 - i. elimination of vessels/gears that (a) remove all or most species they encounter, and (b) damage habitats;
 - ii. elimination of fisheries that operate illegally;
 - iii. elimination of harmful subsidies; and
 - iv. demonstrated improvement in the population status of all depleted species exposed to fisheries

Annex VII

**SYNTHESIS OF DISCUSSION ON ADDITIONAL TOPICS ADDRESSED UNDER AGENDA
ITEM 7 ON POTENTIAL SUBSTANTIVE ELEMENTS ON MARINE AND COASTAL
BIODIVERSITY FOR THE POST 2020 GLOBAL BIODIVERSITY FRAMEWORK**

In this agenda item, participants discussed various potential substantive elements on marine and coastal biodiversity for the post-2020 global biodiversity framework. This annex provides a synthesis of these discussions, but does not aim to comprehensively review all points raised in the discussion. Furthermore, it should be noted that consensus/agreement on these points was not sought during these discussions, and that points reflected in this report do not represent points that were agreed upon among all workshop participants.

EXPLOITATION OF NON-LIVING RESOURCES

- There are a range of activities in this category that can have adverse impacts on marine and coastal biodiversity, such as deep-sea mining, oil and gas drilling, sand mining
 - These can have various impacts such as habitat degradation destruction, different types of pollution, and can occur at different geographical scales
- While CBD does not regulate/manage the extraction of non-living resources from the marine environment, it does have a role in the protection of biodiversity from the effects of such activities
- CBD already has a number of work streams that directly, or indirectly, address these issues, but there may be a need for more focused guidance on marine issues
- With regards to deep-sea mining, there is a lack of information on deep-sea ecology and the effects of mining techniques, which makes assessment of its potential impacts difficult. More science is required to inform decisions.
- It was recognised that the International Seabed Authority has a clear mandate with regard to the protection of the deep-sea environment and is currently in the process of developing draft regulations on exploitation of mineral resources in the Area. CBD Parties, many of which are also Member States of the International Seabed Authority, have a clear role in this process.
- Parties should ensure that the effects of the extraction of non-living resources maintain the function of ecosystems, taking into account cumulative and transboundary effects, and are subject to environmental standards that facilitate conservation and sustainable use and respect the integrity of the ecosystem

CLIMATE CHANGE, OCEAN AND BIODIVERSITY

- Climate change can severely undermine efforts focused on conservation and sustainable
- Although climate change is addressed by the UNFCCC, there is an opportunity through the CBD to examine all climate pressures in a holistic context and to address cumulative impacts of these, and other, pressures
- Should maximize effectiveness and scope of actions through synergies among UNFCCC, CBD and other processes
- Focus on resilience mapping (i.e., some areas are better equipped to deal with climate related consequences than others and remediation/conservation efforts should be focused on these areas)
- Focus on special areas in need of protection based with respect to climate change, including
 - Resilient areas
 - Carbon sinks
 - Areas of theoretical species migration

- Refugia
- Sources, corridors and sinks
- Protect particularly vulnerable areas, including areas that are not currently the most susceptible to climate-based degradation but are predicted to become under greater threat
- There are multiple benefits for multiple groups in working on marine and coastal biodiversity problems as a result of current or predicted climate effects
- Need to make “the business case” for nature-based solutions
- Utilize previous COP decisions relating to the effects of climate change on biodiversity, including the CBD voluntary specific workplan on biodiversity in cold-water areas within the jurisdictional scope of the Convention²
- Focus on minimizing climate change and cumulative impacts on biodiversity by 2030
- Climate change is altering the physics and chemistry of the ocean so much, that past compositions of species and populations may no longer be reliable as standards of reference
- Need to ensure that goals/targets guiding future management is based on the physics and chemistry of the future, not the physics and chemistry of oceans of the past, as well as
- Should also recognize that, in some cases, certain species benefit from climate change
- Need to ensure that climate change implications for range of issues is captured in the framework, and that climate change is addressed in the framework in a way that is complementary with other intergovernmental processes
- CBD may play a role in facilitating cooperation among different conventions with respect to climate and biodiversity issues
 - Could be a cooperative expert process jointly coordinated by the IPCC and the CBD
- Should utilize and perhaps expand language of SDG indicators when developing post-2020 framework

MARINE SPATIAL PLANNING

- Our goal should be 100% sustainably managed ecosystems
- MSP should also incorporate broader seascape and landscape (including terrestrial) elements
- Where MSP is not feasible or acceptable, an ecosystem approach planning processes can be used
- MSP/ecosystem approach planning is a valuable foundation for other targets
- Outcomes and decisions made based on MSP/ecosystem approach planning are driven by objectives
- MSP/ecosystem approach planning can be valuable for assessment of cumulative impacts
- It is important to address social, economic and cultural dimensions in planning, including maritime security
- Potential target language could be:
 - “Promote marine spatial planning, that incorporates strategic environmental assessment, and incorporates socio-economic and cultural considerations, in line with national and/or regional priorities, which leads to MPAs and OECMs that are strategically placed for better connectivity, ecological representation, management, and are complementary to other sustainable marine measures etc.”
 - “By 2030, 100% of marine area within national jurisdiction are covered by a planning process using an ecosystem approach that is multisectoral/integrated and coherent across multiple spatial and governance scales”
 - “By 2030, 100% of marine areas covered by an ecosystem approach planning processes”

² <https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-11-en.pdf>

REGIONAL OCEAN GOVERNANCE

Regional implementation of global targets

- Regional approach can alleviate costs/burden of conservation, especially on least developed countries
- Some issues cannot be addressed by individual countries – need to be addressed at the regional level
- Lack of coordination between international, regional and sectoral organisations

What are the regions?

- Cross-sectoral; Supra-regional; Sub-regional; Large Marine Ecosystems, regional seas organizations, regional fishery bodies
- Different regional initiatives – some regions do not have any regional arrangements/initiatives in place
- Scope and mandate of regional organisations are different
- Not all regions are the same (different characteristics)
- Regions might form themselves based on topics and what can be done

Role of the regional approach – regional implementation of global targets

- We should not regionalize the CBD – but should take advantage of the regional dimension → promote regional work to help implement the CBD targets and goals (i.e. providing the framework for the implementation of the CBD targets through a bottom-up approach)
- Regional inclusion: As an overall approach rather than wording in targets
 - Regional implementation to deliver strong global targets should be in the chapeau/enabling conditions rather than in targets – as overarching goal: communication, stakeholder involvement, including in implementation of the target) → for specific targets could also be explicitly mentioned in the targets that regional level is needed, incl. for instance different culture aspirations & cultural and environmental specificities to be taken into account
- Translation of the target for the regional level → regional targets that will contribute to the global target
 - Example of a target: develop a framework for regional implementation with [XX] years to achieve
- Global targets need to be sensitive to regional differences; Regions have own characteristics, mandates, priorities
- Need for more coordination, alignment and harmonization between the global and regional levels
- Inventory of what is happening in the regions – mapping of what regions are doing to see how can promote CBD work and evaluate state of implementation of targets
- Means to support regional initiatives – regionalization of programmes of work (not just focused on regional seas programmes and RFMOs, needs to go beyond – collaborative approach
- Importance of inter-regional exchange, cooperation, capacity building, especially the importance of island collaboration (including in the context of the CBD programme of work on island biodiversity)
 - Global Island Partnership – high level political group to bring heads of States together
 - Unique value of islands –regional collaboration within and between regions
 - Importance of SIDS
- Regional approach in the ocean should be differentiated from the regional approach on land

Role of regional organisations play in supporting reporting/assessment

- Regionally harmonised data to help national implementation – regional reporting would help States (e.g., SIDS) who may not have the means or resources to do so
 - Regional organisations can assist States for reporting (to compile reports/data)
 - Need for more coordination among Parties, and to ensure a clear vision/visibility at the national level
- Region: provides consistency between States – harmonization of data/information

- Depends on the interpretation of the target – would be different in a small country or a bigger country (provide information on how this could be achieved)
- Capacity: should not be an additional burden on regional organisations (needs
- There is a partnership in place to implement Aichi Target 12 – global partnership with regional focal points) → could have regional focal points to implement different targets (experts in certain areas who could report back)
- Collectively conduct follow-up and review

Annex VIII

SYNTHESIS OF DISCUSSION ON CONSIDERATIONS AND NEEDS RELATED TO MONITORING AND REVIEW OF THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

This annex provides a synthesis of the discussions under agenda item 7 and 8 on considerations and needs related to monitoring and review of the post-2020 global biodiversity framework. It aims to present points raised in the plenary discussion and breakout groups (as reported in the plenary discussion) during this agenda item, but does not aim to comprehensively review all points raised in the discussion. These points are organized thematically with respect to the issues that they address. Furthermore, it should be noted that consensus/agreement on these points was not sought during these discussions, and that points reflected in this report do not represent points that were agreed upon among all workshop participants.

Currently Available Data

- Available data is highly uneven. For example, there is relatively good data on fisheries and mangroves in some areas, but poor data on deep-seas ecosystems, sea grass, etc.
- Available information can exist at very different scales, with some not useful at different scales of resolution
- Assessments such as the World Ocean Assessment, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Ocean Health Index are evolving to include quantitative analyses of change over time, and to describe incremental change over time
- There are highly uneven datasets (especially for species that are not necessarily targets or keystone species)
- There is a patchiness in available baseline data
- Physical variables are generally more available/accessible than biological variables
- There has been overall assessments in some regions, but assessments are still lacking in many regions that do not have the capacity to conduct them
- We often have more information on species that we exploit because of management needs
- Data is very geographically variable, in particular due to different capacities between developed and developing countries
- Information in the marine environment is typically better in areas close to shore rather than deep waters

Lack of Data/Knowledge Gaps

- There are significant data gaps on various species, habitats and ecosystem considerations, including:
 - Interactions between species to understand ecosystem functioning
 - Ecosystem services
 - Genetic resources
 - Connectivity between marine protected areas (MPAs)
 - Relationship between climate change and specific taxa
 - Ocean warming
 - Deep-sea species and ecosystems
 - Coastal habitats
 - Migratory species
 - Geographical distribution of threats
- There are significant data gaps on various management and socio-economic considerations, including:
 - Artisanal fisheries
 - Recreational activities (e.g., fishing, eco-tourism, whale watching)
 - Bycatch, mortality in fisheries, as well as on mesopelagic fish
 - Perverse subsidies
- Need for a better understanding of tipping points
- Need for clear priorities for which data gaps to fill, and to facilitate common approaches across international processes

- Gaps are not only on data but also on data resolution; for example, data on a specific species/area/topic may be available, but of insufficient detail.

Obstacles to Data Collection/Interpretation

- Models are not always accurate (e.g., deoxygenation models can often underestimate deoxygenation)
- Lack of capacity/staff for some countries to collect data or to make it available.
- Global data sets can provide overviews, but that information can be more difficult to apply regionally and nationally
- IUCN Red List data is not applied equally to all taxa
- Data assessments in the field are costly
- Geographical distribution of threats is uneven. Uneven knowledge/data available within a region and between countries. The issue of scale is also important to consider.
- Use of proxies or proxies or interpolation can make data interpretation difficult.
- Data needs to take into account variability over time, which is costly and difficult
- Information is not always shared between the private and public sector

Considerations for Future Data Collection and Sharing

- National reporting needs to better capture indigenous peoples and local communities' data/knowledge
- Data sharing is necessary at all governance levels, between all levels and sectoral organizations.
- The regional level provides a good scale for data sharing
- Standardization of data reporting is necessary to ensure that the same ecosystems are measured in the same way to ensure complete and comprehensive understanding.
- Need for a clearing house mechanism to gather ocean/marine biodiversity data in one place.
- Need for continuous financial investment for data collection.
- Need for digitalization of data (i.e., soft copy of data)
- There should be an obligation to share data with local universities/governments (e.g., when international scientific research/assessments are taking place in a country's national jurisdiction).
- All fish stocks should be monitored, not just declining stocks
- Communication is needed between national ministries to better use and share existing data/information
- Better exchange of data between international processes is also important
- There is a need for better consideration of temporal and spatial dynamics
- Baselines that already exist need to be standardized and taken into account
- Need to better use fishermen and local experts' knowledge, rather than strictly scientific assessments.
- We should not do 'science for the sake of science,' i.e. we must ensure that technology, mechanisms, and data available are in line with needs for policy-making in terms of conservation and management
- Ecosystem functioning is important to measure and report, i.e. not just species data, but the interactions between different species.
- Linking biodiversity to climate change indicators is important
- Capacity for data processing and availability is an issue in many countries. In some places, data can be collected but not processed due to lack of personnel

Synergies/Cooperation

- Need to align SDG and CBD indicators at global and regional levels
- Data sharing is necessary at all levels and between sectors. There is also a need for standardized/harmonized reporting mechanisms to avoid duplication and facilitate collaboration with other conventions.
- There is a need for regional datasets and to integrate datasets between and across regions for the consideration of ecosystems as a whole
- Need for standardized information across all sources, including citizen science
- Should use existing indicators from different conventions at different scales, use/develop indicators that can be used for multiple purposes

Monitoring Progress

- Baseline data on different aspects of marine biodiversity and ecosystems is required to support monitoring and review of progress
- Need to develop nationally validated inventories of data that can be aggregated upwards into international targets
- Should fully engage the different types of knowledge systems that exist, and the needs of local and indigenous communities
- Should not forget the importance of narrative and qualitative information to extract trend data
- CBD should continue to work closely with IPBES to facilitate tracking of multiple forms of knowledge
- Adaptive management should be built into monitoring to allow for new technology and to adapt as capacity grows
- Baseline data on different aspects of marine biodiversity and ecosystems is required to support monitoring and review of progress
- A review process for indicators would be useful (e.g., “are these indicators performing well? If not, let’s replace them with something else”)
- Indicators
 - Kind of indicators that are desirable:
 - Taxonomic information (how many species and how they vary over time and space)
 - Abundance and trends (how much of each species is available in terms of numbers/biomass and how much that varies)
 - Need to identify how indicators relate to goals and targets.
- Monitoring with indicators requires stable data, proper data management and appropriate time scales to address the questions posed

Considerations for monitoring with respect to issues discussed under agenda item 7**Exploitation of marine living resources**

- Framework should be adaptive, so that it can evolve as capacity to use indicators improves
- Indicators need to be descriptive
- Regionally-specific indicators are needed
- Frequency of reproduction could be an indicator
- Use of IUCN Red List as indicators of the status of the ecosystem.
- Indicators could be in increasing level of difficulty (simple stock assessment methods):
 1. Proportion of stocks under active management,
 2. Proportion of stocks experiencing overfishing
 3. Proportion of stocks overfished or experiencing overfishing
 4. Proportion of overfished stocks that have a recovery plan

Marine pollution

- Need indicators for different types of pollution
- Hierarchy of indicators
- Disease could be an indicator of marine pollution
- Process for identifying necessary pollutant reductions: Parties implement an assessment methodology for understanding downstream effects of upstream pollution, including water quality goals and standards, and monitoring measurements
- Indicators should come with understanding of current capacity for reporting

Important marine ecosystems

- Indicators for ecosystems health are complex, but there are emerging indicators and approaches
- Benefit indicators are needed as well as ecological indicators. These may be economic value or intrinsic value (e.g., amount of water filtered, kg of fish captured)

- Baseline knowledge about ecosystems should be enhanced: mapping ecosystem extension and monitoring their trends
- Types of indicators
 - Pressure indicators should be tailored by location/habitat
 - State indicators: understanding of location/state of ecosystems – ecosystem health/structure
 - Response indicator: proportion of ecosystems restored/ ecosystem-based management applied
- Results-based approach can help identify different timescales for target results, linked to the 2030 goals and 2050 vision, for example:
 - Inputs (5-10 years)
 - Outputs (5-20 years)
 - Outcomes (10-20 years)
 - Impact (30 years)

Ecosystem restoration

- Measurable impacts with interim targets and time limits (e.g., after 5 years)
- Monitoring for continued improvement

Area-based planning and conservation measures

- Should have different indicators for MPAs and OECMs
 - Indicators could be developed for each stage of the area-based conservation process
 - Could also have indicators for robustness of each stage/element; Dashboard of where a country is in the process
 - Differences between MPAs and OECMs may require different indicators
 - Percentage of MPAs with management plans
 - Need for better indicators/better quantitative measures (e.g., include a few headline indicators which provide info on overall condition)
 - Report on level of implementation and level of protection
 - Monitoring planning, implementation, effectiveness, etc. requires indicators for robustness/quality at each step
 - More transparent reporting framework/common language (regarding level of implementation, and degree of protection)
 - Regional-level reporting
-