

**Review template for the four brief documents
of the second World Ocean Assessment (WOA II)**

B. Brief on WOA II and UN Decade of Ocean Science for Sustainable Development and UN Decade on Ecosystem Restoration

Section [number]: [title]	Comment	Response from the Experts
Argentina		
Section IV: Main findings of the second World Ocean Assessment of relevance to the United Nations Decades: a baseline of the state of understanding		
Pag. 12, Par. 24	There's not an internationally agreed definition for the concept of "blue economy", it is suggested its replacement by "sustainable and inclusive ocean economy" which is language agreed at the multilateral level (e.g.: 2021 COFI Declaration for Sustainable Fisheries and Aquaculture). Accordingly, footnote 13 should be deleted.	<i>Thank you for the suggestion. The text reflects that included in the second World Ocean Assessment as identified in the footnote. Introducing an alternative definition of the blue economy would then change the text so that it is no longer reflective of the content of the second World Ocean Assessment. Note that the 2021 COFI Declaration relates to sustainable fisheries and aquaculture only and not the whole global ocean</i>

		<p><i>economy. It should also be noted that the term blue economy originated during preparations for the Rio+20/Earth Summit, at the time being recognised as an important extension of the green economy, so has origins within the UN system. Also, the World Bank Group defines Blue Economy as the sustainable and integrated development of economic sectors in healthy oceans. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>
<p>Pag. 12, Title (“B. Ocean wealth in the context of the blue economy”)</p>	<p>There’s not an internationally agreed definition for the concept of “blue economy”, it is suggested its replacement by “sustainable and inclusive ocean economy” which is language agreed at the multilateral level (e.g.: 2021 COFI Declaration for Sustainable Fisheries and Aquaculture).</p>	<p><i>Thank you for the suggestion. The text reflects that included in the second World Ocean Assessment as identified in the footnote. Introducing an alternative definition of the blue economy would then change the text so that it is no longer reflective of the content of the second World Ocean Assessment. Note that the 2021 COFI Declaration relates to sustainable fisheries and aquaculture only and not the whole global ocean economy. It should also be noted that the term blue economy originated during preparations for the Rio+20/Earth Summit, at the time being recognised as an important extension of the green economy, so has origins within the UN system. Also, the World Bank Group defines Blue Economy as the sustainable and integrated development of economic sectors in healthy oceans. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>

Pag. 12, Par. 25	<p>There's not an internationally agreed definition for the concept of "blue economy", it is suggested its replacement by "sustainable and inclusive ocean economy" which is language agreed at the multilateral level (e.g.: 2021 COFI Declaration for Sustainable Fisheries and Aquaculture).</p>	<p><i>Thank you for the suggestion. The text reflects that included in the second World Ocean Assessment as identified in the footnote. Introducing an alternative definition of the blue economy would then change the text so that it is no longer reflective of the content of the second World Ocean Assessment. Note that the 2021 COFI Declaration relates to sustainable fisheries and aquaculture only and not the whole global ocean economy. It should also be noted that the term blue economy originated during preparations for the Rio+20/Earth Summit, at the time being recognised as an important extension of the green economy, so has origins within the UN system. Also, the World Bank Group defines Blue Economy as the sustainable and integrated development of economic sectors in healthy oceans. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>
Pag. 13, Par. 30	<p>There's not an internationally agreed definition for the concept of "blue economy", it is suggested its replacement by "sustainable and inclusive ocean economy" which is language agreed at the multilateral level (e.g.: 2021 COFI Declaration for Sustainable Fisheries and Aquaculture).</p>	<p><i>Thank you for the suggestion. The text reflects that included in the second World Ocean Assessment as identified in the footnote. Introducing an alternative definition of the blue economy would then change the text so that it is no longer reflective of the content of the second World Ocean Assessment. Note that the 2021 COFI Declaration relates to sustainable fisheries and aquaculture only and not the whole global ocean economy. It should also be noted that the term blue economy originated during preparations for the Rio+20/Earth Summit, at the time being recognised as an important extension of the green economy, so has</i></p>

		<p><i>origins within the UN system. Also, the World Bank Group defines Blue Economy as the sustainable and integrated development of economic sectors in healthy oceans. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>
<p>Section VI: Considerations for the third cycle of the Regular Process</p>		
<p>Pag. 19, Par. 55, (b)</p>	<p>There's not an internationally agreed definition for the concept of "blue economy", it is suggested its replacement by "sustainable and inclusive ocean economy" which is language agreed at the multilateral level (e.g.: 2021 COFI Declaration for Sustainable Fisheries and Aquaculture).</p>	<p><i>Thank you for the suggestion. The text reflects that included in the second World Ocean Assessment as identified in the footnote. Introducing an alternative definition of the blue economy would then change the text so that it is no longer reflective of the content of the second World Ocean Assessment. Note that the 2021 COFI Declaration relates to sustainable fisheries and aquaculture only and not the whole global ocean economy. It should also be noted that the term blue economy originated during preparations for the Rio+20/Earth Summit, at the time being recognised as an important extension of the green economy, so has origins within the UN system. Also, the World Bank Group defines Blue Economy as the sustainable and integrated development of economic sectors in healthy oceans. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>

Canada		
General comments		
VI. Considerations for the third cycle of the Regular Process	It looks like the considerations for the 3 rd cycle are comprehensive but it could go even further for b) and potentially c) and include reference to emerging technologies and innovations and implementation of solutions (moving from science to solution) and what is needed to also accelerate that.	<i>The considerations are those provided by the intergovernmental processes consulted in the preparation of the brief (as outlined in paragraph 60). The dot points are intended to provide a brief summary of the topics that the third cycle could consider by either focusing assessment(s) on these topics or including consideration of these topics within the assessment(s) produced during the third cycle. They are not intended to be comprehensive, nor intended to be prescriptive in describing what would be needed to accelerate potential solutions – this would be more appropriately placed within the assessment(s) of the third cycle. The text of (b) has been amended so that it now reads “Opportunities provided through the blue economy, including emerging and novel technologies and solutions” and the text of (c) has been amended so that it now reads “Gaps in the enabling environment for the science needed to progress and deliver global initiatives innovations and solutions, including finance, linkages with industry and support from Governments”</i>
Page 11, paragraph 21:	“... increases in anthropogenic nutrient inputs have caused a global increase in cultural eutrophication ¹² of the coastal ocean...”.	<i>The text is reflective of the that included in the second World Ocean Assessment. Cultural eutrophication is distinct from natural eutrophication and so the two should not be confused. The definition in the footnote</i>

	<p>Unclear what the term ‘cultural’ means here, and perhaps this is a technical term I am not familiar with, but it appears unnecessary in the context of the whole paragraph which is focused on eutrophication in the general sense (based on the text and the footnote with the definition). Suggest ‘cultural’ be deleted to avoid confusion.</p>	<p><i>has been expanded so that is now reads “The enrichment of water by nutrients as a result of human activities, causing an accelerated or explosive growth of algae and higher forms of plant life as opposed to a natural and gradual build-up of nutrients from natural sources”</i></p>
<p>Page 14, paragraph 35</p>	<p>This section focuses on Ocean Equity and para 35 specifically on innovations that can help advance equity/access to info, data, technology. However, I think it would be helpful to include reference to the fact that women are still under-represented in ocean science. There is no specific mention of this anywhere in the Ocean Equity section. There is also no mention of SDG5 (Gender Equality) which would be a good fit in this section, particularly as reference to SDG14 is made in several places of the briefing.</p> <p>“... Innovations in technology and engineering have expanded ocean data collection and are making information more readily available, reducing inequalities in accessing and using ocean knowledge. Cost-effective and user-friendly sensors, along with smartphone applications, the enhanced participation of citizens and the deployment of sensors on non-scientific ships, are also facilitating the expanded collection of ocean observations and providing greater opportunities for ocean observation and research. Platforms that share best practices in</p>	<p><i>There is no specific mention of under-representation of women in ocean science in the second World Ocean Assessment, and as this is a brief summarising the content of the second World Ocean Assessment some care needs to be taken in introducing new content that was not part of the second World Ocean Assessment. Gender inequities, as considered in the second World Ocean Assessment have been included in paragraphs 32 and 33. As referenced by the reviewer, text on the Global Ocean Science Report and its findings, including under-representation of women in ocean science is provided in part (b) of paragraph 61 where reports produced after the text of the second World Ocean Assessment had been finalised are considered.</i></p> <p><i>The brief contains a single reference to the Sustainable Development Goal (SDG) 14 in part (e) of paragraph 61 as part of text summarising considerations for the third cycle provided by the intergovernmental processes consulted in the preparation of the brief. There are no further references to the SDGs. As the third cycle of the Regular Process is producing a brief specifically focused on the Sustainable Development Goals (SDGs),</i></p>

	<p>ocean observing, data sharing and community dialogues have also been established with the aim of improving both accessibility and the effective use of ocean data for the benefit of society. Despite innovations to improve access to data and information, the 2020 Global Ocean Science Report[footnote – see below for link] revealed that women continue to be underrepresented in ocean science, representing a global average of only 37% of all ocean science personnel.</p> <p>Here is the link: Kristen Isensee, IOC-UNESCO, Global Ocean Science Report 2020: Charting Capacity for Ocean Sustainability, (Paris: UNESCO Publishing, 2020), https://unesdoc.unesco.org/ark:/48223/pf0000)</p>	<p><i>it is not appropriate for this brief to consider the SDGs in any detail.</i></p> <p><i>In the spirit of recognizing that gender inequities could be considered in assessment(s) produced under the Regular Process, additional text has been added to Part V of the brief as a consideration for the focus of assessment(s) under the third cycle: “Progress on achieving Sustainable Development Goal 5, on gender equality, and achieving equal opportunities for women to participate, effectively contribute to and be recognised for their roles in maritime activities, ocean science and ocean governance systems.”</i></p>
China		
<p>Section [V]: [Key knowledge and capacity gaps as they relate to the United Nations Decades]</p>		
<p>[Page 17], [paragraph 47]</p>	<p>Detailed disaster risk zonation for coastal communities is a useful mechanism for the ecosystem reservation, disaster resilient capacity building as well as evidence-based decision-making. It could be under</p>	<p><i>A good point, thank you. The text of the final sentence in paragraph 51 has been amended to read “This is especially important for identifying opportunities for involvement in the development of mitigating actions that support the rebuilding and maintenance of</i></p>

	consideration of supporting the process of leave no one behind.	<i>ecosystem resilience, and also in identifying where capacity-building might be best directed in support of ensuring that no-one is left behind under the two Decades.”</i>
Colombia		
General comments		
[[Blue economy and Sustainable Ocean Economy], [Pages 9, 24, 25, 30, 55]	[The UN Decade of Ocean Sciences for Sustainable Development has emphasized the relevance of developing a Sustainable Ocean Economy as it can be seen in the Decade Outcome “A productive ocean” and the publication “Ocean Knowledge for a Sustainable Ocean Economy: Synergies between the Ocean Decade and the Outcomes of the Ocean Panel”. Page 9 of 20 Accordingly, and recalling the concept of Blue Economy, which may and not may be use as a synonym for Sustainable Ocean Economy, and its use across the UN System and the World Ocean Assessment; it is important to establish the existing relations and connections between the two mentioned terms, looking forward for an integrated vision along the frameworks about the ocean-based economies.]	<p><i>We assume that the reviewer is referring to paragraphs 9, 24, 25, 30, 55 rather than pages as the brief is only 20 pages long.</i></p> <p><i>The reference to the term “a sustainable ocean economy” in paragraph 9 (now paragraph 13) is reflective of the language used in the Implementation Plan of the UN Decade of Ocean Science for Sustainable Development (the focus of this section is identified in the heading and subheaders of Section I).</i></p> <p><i>Reference to the term “a blue economy” in paragraphs 24, 25 and 30 (now paragraphs 28, 29 and 34) is reflective of the text included in the second World Ocean Assessment and a definition of the term is provided in footnote 13 so that it is clear what is being referred to by the second World Ocean Assessment.</i></p> <p><i>Reference to “the blue economy” in paragraph 61 (now paragraph 60) is reflective of the text of the considerations that have been provided by the intergovernmental processes consulted in the preparation of the brief that might be included in the assessment(s) of the third cycle, as outlined in the first part of the paragraph and the heading for section V.</i></p>

		<p><i>It is beyond the scope of this brief, which is intended to provide a summary of findings of the second World Ocean Assessment of relevance to the two Decades, to attempt to resolve the differing language used by individual processes and to tease apart interlinkages between the differing language used. No change made, however the comment and the need to recognise that the term blue economy can have many definitions will be taken into consideration in the development of the third cycle.</i></p>
<p>Sustainable Development [Page 1]</p>	<p>It is important that sustainable development is not seen as a perfect balance between economic, social and environment aspects, since one of these will be affected or sacrificed for the other two. In this sense, sustainable development must contemplate the rational use of the resources, being clear that the resources will be used up to the point where the ecosystem is able to regenerate. For this reason, it is relevant to find a strategy where future generations enjoy the same resources that are available today, therefore aiming not only for the conservation of the resources, but to use them in an appropriate way taking into account their restoration time.</p>	<p><i>It is not clear what is being suggested by the reviewer in relation to page 1 and (we assume) reference to the 2030 Agenda for Sustainable Development. As identified in the brief, both Decades identify the need for reversing ocean degradation, transitioning to sustainable practices and building resilience, which if the reviewer's text has been interpreted correctly, is in line with what the reviewer is suggesting.</i></p> <p><i>It is beyond the scope of this brief, which is intended to provide a summary of findings of the second World Ocean Assessment of relevance to the two Decades, to attempt to outline a strategy for achieving these goals, noting that any strategy would need to directly address regional variations in development and capability and therefore need to be designed in many different ways to suit this variability.</i></p>

		<p><i>If the reviewer is referencing some other part of the brief, could they please provide clarification on which part of the brief they are referring to. No change made.</i></p>
<p>Large fishing industries contamination [Page 4]</p>	<p>The document speaks of fishing as an opportunity for the world economy and also contemplates the need to support small-scale fisheries, considering that they are marginalized by large fishing industries. However, the document does not address the problem of marine pollution that is generated from this. Over time, large fishing industries have been shown to cause very serious damage to ecosystems, with ghost fishing nets, trapped animals, illegal trafficking of marine animals, fishing and mass death of animals that fall into nets but are not subject to consumption and irreparable damage to the seabed by trawling, therefore, it is considered very important to generate strategies to prevent, mitigate and control the impacts that this economic aspect is causing on marine ecosystems.</p>	<p><i>It is not clear which part of the brief the reviewers are referring to – page 4 contains reference to the authors of the chapters referenced within the brief and paragraph 4 contains text summarizing the outcomes of the first World Ocean Assessment.</i></p> <p><i>Paragraph 29 of part B of Section III refers to opportunities associated with the blue economy as a whole, of which fisheries are just one component. No reference is made to fishing as being specifically an opportunity for the world economy.</i></p> <p><i>Reference to small scale fisheries is made within the context of opportunities referenced in the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication which relate to the improvement of safety at sea, sharing of knowledge, building of capacity and improving governance.</i></p> <p><i>Reference to the impacts of pollution and unsustainable resource use is provided in paragraphs 24 and 25 and is reflective of the text contained within the second World Ocean Assessment, which this brief summarises. Further, the third cycle is producing an additional brief specifically focused on the state of marine biodiversity and the threats to marine biodiversity including through resource extraction. It is not the role of this brief to repeat this content.</i></p>

		<p><i>If we have misinterpreted the reviewer's comment and they are referencing some other part of the brief, could they please provide clarification on which part of the brief they are referring to. No change made.</i></p>
Information Gaps [Page 11]	<p>The text refers to the importance of contributing knowledge, technologies and trained personnel to close information gaps, however, no strategies are proposed to use, analyze and dispose the information that has been collected over the years by the institutions of the different member countries of the United Nations. Given that several diagnosis and assessment documents have already been published, it is necessary to establish a baseline to take decisions in the territories by policymakers, helping the communities know their resources and use them in a sustainable way. However, much of the information obtained is reserved, not share or stay in the hands of the scientists. In this sense, although it is important to continue with the collection of data, it is also relevant to use Page 10 of 20 the information, analyzed it and apply it for the better of the communities.</p>	<p><i>It is not clear which part of the brief the reviewers are referring to – pages 10 and 11 contain text summarising the main findings of the second World Ocean Assessment.</i></p> <p><i>Key knowledge gaps identified by the second World Ocean Assessment (as they relate to the two Decades) are provided in section IV.</i></p> <p><i>Paragraph 45 references the need for timely dissemination of data and the need for making what data that has already been collected available. Paragraph 51 references the need for sharing of frameworks that allow for the exploration and utilisation of data that are already available, and the application of management approaches already developed. If the reviewer's comment has been interpreted correctly, the text in these paragraphs is in line with their comments.</i></p> <p><i>If we have misinterpreted the reviewer's comment, could they please provide clarification on which part of the brief they are referring to. No change made.</i></p>
Section [II]: [Decades declared by the		

United Nations of relevance to the Regular Process]		
[Page 8], [Paragraph 6c]	It is important to lack of legislative, economic and policy incentives for investing in restoration and environmentally sustainable production;	<i>It is not clear what is being suggested by the reviewer in relation to part c of paragraph 6, noting investment (i.e. economic incentives) is noted in part b of paragraph 6. This text is detailing the six primary barriers identified and articulated in the Strategy for the Decade of Ecosystem Restoration (as referenced in footnote 7 – see pages 4 and 5 of the Strategy) and therefore is reflective of the text as it is written in that strategy. It is not appropriate for this brief to alter the text of the strategy (if that is what is being suggested). No change made.</i>
[Page 8], [Paragraph 6d]	Develop the technical capacity to generate quality technical information, replicable experiences, methodologies and protocols that allow continuous improvement in the implementation of restoration processes and thereby generate a solid, defensible, understandable, effective and large-scale scientific base, strengthening the role of science, indigenous knowledge and traditional practices and applying the best technical knowledge and practices.	<i>It is not clear what is being suggested by the reviewer in relation to part d of paragraph 6 (now paragraph 10). This text is detailing the six primary barriers identified and articulated in the Strategy for the Decade of Ecosystem Restoration (as referenced in the footnote) and therefore is reflective of the text as it is written in that strategy. It is not appropriate for this brief to alter the text of the strategy (if that is what is being suggested). No change made.</i>
Section III: Relevance of the Regular Process and the United Nations Decades to each other		
[Page 9], [Paragraph 10]	Will be proper to mention the Ocean Decade Indigenous and Local Knowledge (ILK) Framework.	<i>Paragraph 10 (now paragraph 14) contains text that is reflective of the Implementation Plan for the UN</i>

		<p><i>Decade of Ocean Science for Sustainable Development, which does not contain details of an “Ocean Decade Indigenous and Local Knowledge (ILK) Framework”. The frameworks identified and detailed in the implementation plan include: an “information and digital knowledge management Framework”, a “Capacity development framework for the Ocean Decade” which identifies that capacity building needs to “Recognize, respect and engage local and indigenous knowledge holders as both beneficiaries and providers of capacity development”, a “Governance and coordination framework” and a “framework to track Ocean Decade impact and progress”, (Please see https://www.oceandecade.org/wp-content/uploads/2021/09/337567-Ocean%20Decade%20Implementation%20Plan%20-%20Full%20Document). Further, the glossary to the Implementation Plan makes no reference to an Indigenous and Local Knowledge Framework.</i></p> <p><i>Extensive searching of the internet for an “Ocean Decade Indigenous and Local Knowledge (ILK) Framework” was unsuccessful and such a framework is not listed on the publications page of the Ocean Decade website, although there is a document produced by the Ocean Decade on “Ocean literacy within the United Nations Ocean Decade of Ocean Science for Sustainable Development. A framework for action” (see https://www.oceandecade.org/decade-publications/?pages=2).</i></p> <p><i>So there does not seem to be a framework as described by the reviewer. Perhaps the reviewer is referring to a</i></p>
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<p>[Page 10], [Paragraph 17]</p>	<p>It is important in drafting documents to avoid the use of the exact same term many times in a sentence. In this order, the word “beyond” is used twice in the 15 and 16 lines of paragraph 17; therefore, it is recommended to change it for a synonym related to its original purpose</p>	<p><i>Thank you for picking this up. The sentence has been amended to read “In future cycles of the Regular Process, this connectivity could be further enhanced through the nomination of relevant experts involved in the two Decades to the Group of Experts of the Regular Process via the United Nations regional groups”. This then reduces the use of the word “beyond” to two instances in the paragraph.</i></p>
<p>[Page 11], [Paragraph 18]</p>	<p>The Decade of Ocean Sciences for Sustainable Development is built under the principle “leaving no-one behind” looking forward to supporting the needed changes and innovation, by articulating the ocean sciences, understood as all the disciplines related to the study of the ocean, regardless the scope, or branch the discipline has. Based on the established framework, the development of links and articulations mechanisms with the Regular Process will enhance a socio-cultural investigative scope within the World Ocean Assessment by including the current trends on oceanrelated areas regarding gender issues, youth and</p>	<p><i>It is not clear what is being suggested by the reviewer in relation to paragraph 18 (now paragraph 22). The potential for linkages between the two Decades and the Regular Process “to provide guidance on the focus and content of the assessment(s) produced (e.g., particular topics of overall assessment(s) or topics to be included as chapters in the assessment(s) conducted across relevant cycles of the Regular Process” has been identified, but it is beyond the scope of this brief to suggest what that guidance might be. Further, paragraph 17 (now paragraph 21) identifies that linkages between the two Decades and the Regular</i></p>

	early professionals, minorities, and/or local and indigenous communities.	<i>Process would support “identifying opportunities for the input of traditional owner and indigenous perspectives and knowledge into assessments”. No change was made.</i>
[Page 11], [Paragraph 19]	The Decade of Ocean Sciences for Sustainable Development exhorted the IOC/UNESCO members states to establish National Decade Committees with the purpose of to facilitate Page 11 of 20 national coordination of Decade activities involving the national political and scientific institutions and actors concerned by the ocean and its management. Based on this non-binding recommendation, an articulation process between the Group of Experts and National Decade Committees should be considered as a mechanism to strengthen their [National Decade Committees] capacitybuilding in the Group of Experts’ areas of knowledge. Developing a cooperation framework under this scope, will led (i) to avoid the duplication of efforts at global levels by unifying actions and establishing joint activities that support all the three global frameworks; (ii) to bring closer the scientific knowledge to the policy makers and social communities; and (iii) to spread awareness of the actions taken by the actors involved.	<i>Paragraph 19 (now paragraph 23) discusses the potential for joint activities between the Regular Process and both IOC-UNESCO (as the coordinator of the UN Decade of Ocean Science) and UNEP and FAO (as the coordinators of the UN Decade of Ecosystem Restoration) in general and in the context of both Decades. What those activities might be, what they might focus on and who might be the main actors involved in those activities (noting that National Decade Committees are just one coordinating mechanism of many occurring as part of the Ocean Science Decade and they do not relate to the UN Decade of Ecosystem Restoration – which this text also relates to) is beyond the scope of this brief. No change was made.</i>
Section [IV]: [Main findings of the second World Ocean Assessment of relevance to the United Nations Decades: a baseline of the		

state of understanding]		
[Page 11], [Paragraph 20]	<p>Throughout the paragraph it is mentioned about the improvement of sustainable ocean practices; nevertheless, the areas around the world where those practices are being developed are not presented along the document. Hence, based on the purpose of the section, related to presenting the main findings of the second World Ocean Assessment, it will be plausible to mention and give clarification of some of those areas. Finally, “Climate change” is repeated twice, mentioned as a cause of ocean health degradation and a driver.</p>	<p><i>The text is reflective of the content of the second World Ocean Assessment and is summarizing a general point that is reflective of multiple sectors and geographic regions. It is therefore referring to improvements that have been made in some sectors in some regions. As this is a summary of findings from the second World Ocean Assessment, it is beyond the scope of this brief to identify all sectors in all regions where sustainability has improved – this level of detail can be found in the various chapters of the assessment.</i></p> <p><i>The text has been amended to read “Improved understanding of the ocean and ongoing implementation of responses for mitigating or reducing pressures and their associated impacts are improving sustainable ocean practices in some areas (e.g. implementation of effective management and regulation of particular sectors by nations), with resulting benefits for ocean health.” Hopefully this clarifies that the sentence relates to many sectors and many regions.</i></p> <p><i>Thank you for identifying the repetition of the term climate change. The text has been amended to read “However, both coastal and offshore areas continue to be affected by changes occurring in the ocean, marine pollution and unsustainable resource use, largely as a result of drivers associated with a growing human population, economic activity, technological advances, governance structures and geopolitical instability and climate change.”</i></p>

<p>[Page 12] [Paragraph 22]</p>	<p>Different techniques and approaches such as afforestation, replanting or hydrological restoration of mangroves on all continents have partially decreased the speed of mangrove area loss, highlighting the positive impacts of restoration efforts.</p>	<p><i>The text is reflective of the content of the second World Ocean Assessment which refers to afforestation and replanting of mangroves and does not refer to hydrological restoration (see Chapter 7H, page 365, 370-371). Introducing new concepts into a summary of the second World Assessment would not be reflective of the content of the second World Ocean Assessment.</i></p> <p><i>A footnote has been inserted into paragraph 26 to identify that there are techniques and approaches beyond those identified in the second World Ocean Assessment “It is noted that there are many techniques and approaches applied to restoring mangroves, including hydrological restoration.”</i></p>
<p>[Page 13], [Paragraph 28]</p>	<p>Even when tourism was one of the activities most affected by covid 19, this activity was one of the first to recover, bringing benefits to the economy and society of the places where it is carried out.</p>	<p><i>We assume that the reviewer is referring to paragraph 29 (now paragraph 33), which discusses the impacts of the COVID-19 pandemic. As noted in the text of this paragraph, tourism related activities such as cruise ships were yet to recover at the time at which the content of the second World Ocean Assessment was finalized. Further, current assessments of tourism globally identify that tourism is still struggling to recover from the pandemic and full recovery will take some years yet (For example, see https://unctad.org/news/we-urgently-need-kickstart-tourisms-recovery-covid-19-crisis-offers-opportunity-rethink-it). Of ocean sectors, it is shipping and fisheries that have been recovering much faster than tourism. Based on assessments of the impacts of the pandemic on maritime industries and their recovery available, we respectfully disagree with the reviewer. No change was made.</i></p>

<p>[Page 13], [Paragraph 30]</p>	<p>This section discusses the importance of the use of marine resources for the generation of medicines, cosmetics, among others, however, it is necessary to delve into the identification, evaluation and use of marine diversity to be used as a means to promote economic, technological and sectoral development. In relation to the above, it is considered necessary to develop this activity through the sustainable use of marine and coastal biodiversity, as well as the sustainable use of genetic diversity provided by marine and coastal ecosystems.</p>	<p><i>The value of the marine environment including marine biodiversity is discussed in paragraph 28, use of marine biodiversity is discussed in paragraph 30, access to marine biodiversity resources is discussed in paragraphs 35, 36 and 38 and sustainable use of marine resources, including marine biodiversity is discussed in paragraphs 40 and 41.</i></p> <p><i>Further, the third cycle of the Regular Process is producing a brief specifically focused on focused on the state of marine biodiversity and the threats to marine biodiversity including through resource extraction. It is not the role of this brief to repeat this content. No change was made.</i></p>
<p>[Page13], [Paragraph 32]</p>	<p>Maintain a firm position against "perverse" state subsidies so that they do not continue to subsidize the fishing industry, especially fishing in non-jurisdictional waters</p>	<p><i>Thank you for raising this. Additional text has been added to the paragraph so that it now reads “Despite contributing to the employment of more than 90 per cent of the people involved in capture fisheries (about 50 per cent of whom are women), small-scale fisheries continue to be marginalized, with increasing pressure from both industrialized fleets (around 50% of which are estimated to be subsidized and estimated to be unprofitable otherwise) and other ocean uses. The expansion of opportunities for small-scale fisheries has been outlined in the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, and 2022 has been proclaimed by the United Nations as the International Year of Artisanal Fisheries and Aquaculture.¹¹ Negotiations under the auspices of the</i></p>

		<i>World Trade Organization on eliminating illegal, unreported or unregulated fishery subsidies and prohibiting other forms of subsidies are ongoing.”</i>
[Page 15], [Paragraph 39]	It is important to describes different areas than conservation areas, as DRMI DMI and ZEPAS, expressing that sustainable management is also a conservation strategy as expressed by the IUCN (International Union for Conservation of Nature), which includes these initiatives in its conservation categories.	<i>It is unclear what the reviewer is referring to as they have only referred to acronyms, without explaining what those acronyms represent.</i> <i>The text is reflective of the content of the second World Ocean Assessment and is summarizing a general point that is focused on the utilization of conservation management approaches for use in adaptation measures. It is not discussing the different types of conservation areas (and their names) that might be implemented by nations, either widely across nations (e.g. RAMSAR areas) or specific to a particular nation. It is beyond the scope of the brief to go into the detail of every form of area-based and non-area-based management approach that might support adaptation – some of this detail can be found in the various chapters of the assessment and in particular in Chapter 27. No change was made.</i>
Section [V]: [Key knowledge and capacity gaps as they relate to the United Nations Decades]		
[Page 15], [Paragraph 40]	Agreed. There is a need for more information exchange between science and the fishing industry	<i>Noted, with thanks.</i>

	and finally the general public. For example, many species are at their maximum exploitation point and some have surpassed it, as in the case of the Atlantic bluefin tuna. The public should be informed about what they consume and be responsible.	
[Page 16], [Paragraph 43]	Describes the main anthropogenic impacts on marine ecosystems. Recommendations: reduction or mitigation of pressures and promotion of actions to adapt to climate change with funds accessible to the least developed countries as well as to developing or medium developed countries.	<i>The paragraph is referring to knowledge gaps (as identified in the section header), not actions needed in relation to addressing climate change. Capacity to manage human activities mitigate threats and maintain the resilience of habitats and species is provided in paragraphs 48- 51.</i> <i>Further, the third cycle of the Regular Process is producing a brief specifically focused on focused on climate change and the related socio-economic effects of changes occurring in the ocean. It is not the role of this brief to repeat this content. No change was made.</i>
[Page 17], [Paragraph 47]	Along the paragraph, the key issue being discussed is related to communities' capacity gaps. That is why, the call to increase the understanding of coastal communities, as a way forward to close those gaps, should consider going beyond, by articulating the socio-cultural dimensions of youth, gender issues, and local and indigenous groups. The above, foreseeing a comprehensive and integral study of coastal communities where the positive and negative dynamics, which are built upon the interaction between them and with the ocean, are deemed.	<i>Reference to communities is made as a whole and encompasses all components of communities. No change was made.</i>
[Page 18], [Paragraph 51]	Even economic activities are the main beneficiaries of marine and coastal biodiversity. Development should include activities that minimize environmental impacts and enhance economic and social impacts.	<i>The paragraph is referring to knowledge gaps associated with the protection of coastal and marine habitats to facilitate natural regeneration as is relevant to the UN Decade of Ecosystem Restoration.</i>

		<i>Management of activities occurring in coastal and marine regions is referred to in paragraphs 40-43 and 50. No change was made.</i>
[Page 18], [Paragraph 52]	In this point, a reference to Ocean Literacy could very pertinent. Considering its aim to better understanding of how ocean influence on us and our influence on the ocean, as well how the health of the ocean affects our daily lives.	<i>Thank you for raising this. The text has been amended to read “In addition, improving knowledge of the connections between ocean health and human health is needed to better connect outcomes from the Decade to the benefits (including well-being) that humans derive from a healthy ocean (i.e. improving both knowledge and the transfer of knowledge to society).”</i>
Korea, Republic of		
Section [II-B]: [United Nations Decade of Ocean Science for Sustainable Development]		
[9/20], [9]	<p>Addition of words:</p> <p>(g) An inspiring and engaging ocean that society understands and values in relation to human well-being and sustainable development</p> <p>> An inspiring and engaging ocean that society <i>understands, values, and takes care of (or interacts with)</i> in relation to human well-being and sustainable development</p>	<i>This text is detailing the seven societal outcomes identified and articulated in the Implementation Plan for the Decade of Ocean Science for Sustainable Development (as referenced in the footnote – see pages 18 and 19 of the Ocean Decade Implementation Plan) and therefore is reflective of the text as it is written in that plan. It is not appropriate for this brief to alter the text of the Implementation Plan. We do note that the editor had made changes to this text and have corrected this text to that in the Implementation Plan for the UN Decade of Ocean Science for Sustainable Development.</i>

Section [III-B]: [United Nations Decade on ...]		
[10/20], [16]	<p>Addition of words:</p> <p>(c) Track changes to capacity, including through the transfer and implementation of new technologies and the sharing of knowledge</p> <p>> Track changes to capacity, including through the transfer and implementation of new technologies <i>and the development</i> and sharing of knowledge</p>	<i>We acknowledge the need to include some reference to future development. We have amended the text so that it reads “Track changes to capacity, including through the development, sharing and implementation of new technologies and knowledge.”</i>
Thailand		
General comments		
The overall principle	The Department of Marine and Coastal Resources agrees with the overall principle of conservation of marine and coastal resources under the Second World Oceans Assessment, which supports the implementation of the Decade of the United Nations. However, it should highlight applying science and technology and technology transfer, including the encouragement of local wisdom, to support the operation to be more efficient.	<i>Reference to applying science and technology and technology transfer, including the encouragement of local wisdom is made in paragraphs 10, 13, 16, 28, 30, 34, 38-43, 48-51, 56-58.</i>
US		
Page 15, Paragraph 40	For the second sentence, delete “observations of” so the sentence reads “Physical and biogeochemical observations...”	<i>Thank you for picking this up. Change made as suggested.</i>
Page 18, Paragraph 52	For the sentence starting with “In addition” change “heathy” to “healthy.”	<i>Thank you for picking this up. Change made as suggested.</i>
International Seabed Authority		
General comments		

<p>Reference to each Decade (para. 7, 9 and 10)</p>	<p>When referring to each specific Decade, it would be advisable to add qualifier for clarity and future reference. E.g., “Ocean Science Decade” and “Ecosystem Restoration Decade”</p>	<p><i>Paragraph 7 (now paragraph 11) sits within a section entitled “United Nations Decade on Ecosystem Restoration”, while paragraph 9 (now paragraph 13) and 10 (now paragraph 14) sit within a section entitled “United Nations Decade of Ocean Science for Sustainable Development”. The section header provides clear reference to which Decade is being referred to. There is therefore no need to specifically identify the decade being referred to within the paragraphs of each section. This would be unnecessarily repetitious. No change made.</i></p>
<p>Reference to section 6.1. outlining knowledge and capacity gaps (para. 48 and 52)</p>	<p>In both paragraphs, further clarification on section 6.1 with reference to relevant Chapter(s) should be provided.</p>	<p><i>Thank you for picking this up. This was an oversight of the editor in formatting the brief. This has been corrected.</i></p>
<p>Section IV-B: Ocean wealth in the context of the blue economy</p>		
<p>Page 13, para. 27</p>	<p>Suggested edits (highlighted) for consistency and most updated information:</p> <p>“As of April 2022, the International Seabed Authority (ISA) was administering 31 exploration contracts in 2020. It had adopted a “mining code” regulating exploration and is developing regulations for the exploitation of minerals in areas beyond national jurisdiction. and criteria that would support the establishment of new Regional environment</p>	<p><i>Thank you for the update. The text is reflective of the content of the second World Ocean Assessment (see Chapter 18, pages 264, 272). Noting that 2022 is well beyond the finalization of the content of the second World Ocean Assessment, we have amended the text so that it is clear that the text is referring to the state at the time of the finalization of the text of the assessment: “At the time of the finalisation of the second World Ocean Assessment in 2020, the International Seabed Authority was administering 30 exploration contracts. It had</i></p>

	<p>management plans are being developed and implemented by ISA in priority regions in the Area, where exploration activities are currently taking place.</p>	<p><i>adopted a “mining code” regulating exploration and was developing regulations for the exploitation of minerals in areas beyond national jurisdiction and criteria that would support the establishment of new regional environment management plans.”</i></p> <p><i>We have in addition inserted a footnote to provide the update as provided by the ISA that reads “As of April 2022, the International Seabed Authority was administering 31 exploration contracts and regional environment management plans are being developed and implemented in priority regions where exploration activities are currently taking place in Areas Beyond National Jurisdiction.”</i></p>
<p>Section IV-C: Ocean equity</p>	<p>Comment</p>	
<p>Page 14, para. 34</p>	<p>Suggested addition (highlighted):</p> <p>A number of international guidelines and agreements have been developed to assist in addressing, in particular, inequalities related to capacity and access, including the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Participants in the negotiations on the draft text of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of resources in areas beyond jurisdiction are also considering the sharing of benefits, capacity-building and the transfer of marine technology. In 2020, the ISA Assembly</p>	<p><i>Thank you for the update. The text is reflective of the content of the second World Ocean Assessment (see Chapter 18, pages 264, 272). We have expanded the text to reflect the content of the second World Ocean Assessment on capacity building so that it reads “Proposals regarding training programmes for developing countries detailing capacity building needs have been submitted to the International Seabed Authority (ISA) and have been the focus of a workshop in early 2020”</i></p> <p><i>We have also inserted a footnote into the paragraph to provide an update as provided by the ISA “Since the finalisation of the second World Ocean Assessment, the ISA Assembly have endorsed a programmatic approach for capacity development where transfer of technology is</i></p>

	adopted a key decision endorsing a programmatic approach for capacity development where transfer of technology is identified as an essential part of the work to be done in 2022 and beyond ¹ .	<i>identified as an essential part of work to be progressed in 2022 and beyond. See ISBA/26/A/18.”</i>
UNEP		
General comments		
The comment relates to the UN Decade on Ecosystem Restoration, and specifically the pathway (b) (mentioned on page 8, paragraph 7: “(b) Assisting Heads of State, government ministers, directors of government departments, parliamentarians, business leaders and landowners to champion restoration and foster political	Section II.A. paragraph 7 (b), refers one of the identified pathways for restoration efforts, that is: (b) Assisting Heads of State, government ministers, directors of government departments, parliamentarians, business leaders and landowners to champion restoration and foster political will for ecosystem restoration. Following the interdisciplinary nature of the work, it is important to include a separate section under V. Key knowledge and capacity gaps as they relate to the United Nations decades A. Knowledge and capacity gaps relevant to both Decades specifically on the role of legislation and enforcement , with new paragraphs. This could include information on the following: 1) The role of Government action in designing new/amending existing legislation to address/mitigate threats and restore. 2) The role of strong institutional frameworks	<i>The key knowledge and capacity gaps discussed in Part IV of the brief are those that are included in the text of the second World Ocean Assessment. Therefore, the text in this section of the brief is reflective of that in the assessment (and aligns with the purpose of the brief to summarise the main findings of the second World Ocean Assessment).</i> <i>The assessments produced under the Regular Process, while able to describe current legislation, policy and management actions in place cannot be policy prescriptive in nature, so some care needs to be taken in introducing concepts around law and policy. The UNEP Law Division is not mentioned in the second World Ocean Assessment and introducing the paragraphs as suggested would introduce new concepts that were not covered in the second World Ocean Assessment.</i> <i>In the spirit of recognizing that better understanding on the role of legislation and policy could be considered in assessment(s) produced under the Regular Process, additional text has been added to Part V of the brief as a consideration for the focus of assessment(s) under the third cycle: “Gaps in understanding of the role of law</i>

¹ See [ISBA/26/A/18](#).

<p>will for ecosystem restoration;”</p>	<p>3) The role of enforcement (if enforcement is weak, any law in effect becomes futile).</p> <p>The UNEP Law Division provides technical legal assistance to countries upon request on environmental law (see also https://leap.unep.org/technical-assistance), that currently falls under the Fifth Montevideo Programme for the Development and Periodic Review of Environmental Law. This includes technical assistance on all three aspects mentioned above.</p> <p>In addition, UNEP has a partnership with the Inter-Parliamentary Union, aiming at capacity building for parliaments to advance requisite skills to formulate and review appropriate legislation, and to provide effective oversight on the negotiation and implementation of internationally agreed environmental goals; development of knowledge guidance and information material tailored to parliamentarians to address legislative challenges related to the environment; facilitate international exchange among parliamentarians to share best practices on legislation and oversight and providing platforms for dialogue between legislators and key stakeholders in the context of international environmental negotiations.</p> <p>See also the Nusa Dua Declaration - Getting to zero: Mobilizing parliaments to act on climate change, one of the outcome documents of the 144th IPU Assembly.</p>	<p><i>and policy in addressing and mitigating threats and restoring marine ecosystems, including capacity-building for parliaments to advance requisite skills to formulate and review appropriate legislation, and to provide effective oversight on the negotiation and implementation of internationally agreed environmental goals; development of knowledge guidance and information material tailored to parliamentarians to address legislative challenges related to the environment; sharing of best practices on legislation and oversight and providing platforms for dialogue between legislators and key stakeholders in the context of international environmental negotiations.”</i></p>
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Section [number]: [title]		
Page 18, paragraph 52	In relation to plastic marine litter, it may be worth mentioning the recent resolution UNEP/EA5/Res.14 of the Resumed Fifth Session of the United Nations Environment Assembly (28 February to 2 March 2022) titled “ End plastic pollution: Towards an international legally binding instrument ”. The advance version in English is available on the UNEA proceedings website .	<i>A footnote has been inserted into paragraph 57 that reads “Recognising the importance of cooperation and coordination that is required and the approaches, sustainable alternatives and technologies available to address plastic pollution, the resumed Fifth Session of the United Nations Environment Assembly in 2022 agreed on the resolution: End plastic pollution: Towards an internationally binding instrument” See UNEP/EA5/Res 14.”</i>