Nineteenth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea

(18 to 22 June 2018)

Co-Chairs' summary of discussions

Advance, unedited version

Nineteenth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea

(18 to 22 June 2018)

Co-Chairs' Summary of Discussions[1]

1. The United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (the Informal Consultative Process) held its nineteenth meeting from 18 to 22 June 2018. Pursuant to General Assembly resolution 71/257, as recalled in resolution 72/73, the meeting focused its discussions on the topic entitled "Anthropogenic underwater noise".

2. The meeting was attended by representatives of 47 States, 11 intergovernmental organizations and other bodies and entities and eight non-governmental organizations.[2]

3. The following supporting documentation was available to the meeting: (a) Report of the Secretary-General on oceans and the law of the sea which relates to the topic of focus of the nineteenth meeting of the Informal Consultative Process (A/73/68); and (b) format and annotated provisional agenda of the meeting (A/AC.259/L.19). The full texts of the contributions to the report of the Secretary-General relating to the topic of focus along with the compilation of peer-reviewed scientific studies on the impacts of ocean noise on marine living resources, submitted pursuant to paragraph 107 of General Assembly resolution 61/222 were made available on the website of the Division for Ocean Affairs and the Law of the Sea (DOALOS).

Agenda items 1 and 2
Opening of the meeting and adoption of the agenda

4. The Co-Chairs, Pennelope Althea Beckles, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of Trinidad and Tobago to the United Nations, and Kornelios Korneliou, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of Cyprus to the United Nations, appointed by His Excellency Mr. Miroslav Lajčák, President of the seventy-second session of the General Assembly, opened the meeting.

5. Opening remarks were made by the Under-Secretary-General for Legal Affairs and United Nations Legal Counsel, Mr. Miguel de Serpa Soares; and the Assistant Secretary-General for Economic Development and Chief Economist, Department of Economic and Social Affairs, Mr. Elliot Harris, on behalf of the Secretary-General.

6. The meeting adopted the format and annotated provisional agenda and approved the organization of work.

[1] The summary is intended for reference purposes only and not as a record of the discussions.
[2] A list of participants is available on the website of the Division for Ocean Affairs and the Law of the Sea at http://www.un.org/Depts/los/index.htm.

Agenda item 3
General exchange of views

7. A general exchange of views took place at the plenary meetings on 18 and 21 June. Delegations highlighted the importance of the Informal Consultative Process, paying particular attention in their statements to the topic of focus, "Anthropogenic underwater noise" (paras. 10-34 below). The discussions on the topic of focus within the panel segments are reflected in paragraphs 35 to 100 below.

8. Delegations recognized the primary role of the Informal Consultative Process in integrating knowledge, exchanging of opinions and coordinating among multiple stakeholders and competent agencies, as well as enhancing awareness of various topics related to oceans, including emerging issues. Many delegations expressed continued support for the role of the Informal Consultative Process in promoting coordination among competent agencies and enhancing awareness of topics relating to oceans, including emerging issues, while promoting the three main pillars of sustainable development: social, economic and environmental. In that regard, several delegations expressed support for the renewal of the mandate of the Informal Consultative Process for another period. Several delegations underscored the need to continue to strengthen and improve its effectiveness as a unique forum for comprehensive discussions on issues related to oceans and the law of the sea.

9. Appreciation was expressed to those who had contributed to the Voluntary Trust Fund for the purpose of assisting developing countries, in particular least developed countries, small island developing States and landlocked developing States, in attending meetings of the Informal Consultative Process. Several delegations urged States to continue to contribute to the Trust Fund to foster the widest possible participation and make the process most meaningful and inclusive, as well as promote capacity-building. The Director of DOALOS provided an update on the status of the Trust Fund and underlined the very limited funds available in the Fund. She reiterated that the General Assembly, in its resolution 72/73, expressed its continued serious concern regarding the lack of resources available in the trust fund, and urged that additional contributions be made.

Topic of focus

10. In his remarks delivered on behalf of the President of the seventy-second session of the General Assembly, His Excellency, Mr. Omar Hilale, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of Morocco to the United Nations and Vice-President of the seventy-second session of the General Assembly, noted the environmental and socioeconomic impacts of anthropogenic underwater noise (AUN). He underscored the need to invest more in order to better understand the issue and to bridge knowledge gaps, especially through capacity-building. Emphasizing the need for more integrated action and for further advocacy and outreach, the Vice-President noted that, in light of the commitments that had been made in the United Nations to the health of the oceans, including resolutions on bottom fishing and the adoption of the 2030 Agenda for Sustainable Development (2030 Agenda), including Sustainable Development Goal 14 (SDG 14), the United Nations was the forum in which to build momentum in relation to AUN.

11. Many delegations expressed appreciation for the report of the Secretary-General on oceans and the law of the sea (A/73/68) which was considered comprehensive and a solid basis for discussions.

12. Many delegations also welcomed the topic of focus as timely. They expressed concern over potential social, economic and environmental impacts of AUN, as the growth of ocean-related human activities had resulted in increased sound in many parts of the ocean. Some delegations observed that AUN could be intentional as well as unintentional, and could be produced from a variety of sources, such as shipping, seismic surveys and the use of airguns, explosions, industrial activities, sonar, military testing, drilling and dredging. A view was expressed that not all sound introduced into the ocean environment by humans was harmful or would have deleterious effects on marine life. Moreover, sound also resulted from critical human activities such as navigation, scientific research, energy exploration and maritime security.

13. The impacts of anthropogenic ocean noise on specific marine species and ecosystems were highlighted by several delegations, including impacts on marine mammals, fish in general and migratory species. Several delegations noted that higher levels of AUN were affecting marine species' abilities to rely on sound for critical life functions. Negative impacts of anthropogenic noise upon marine life referred to by delegations included inducing changes in species' behaviour and migratory routes, disrupting communication, displacing animals from feeding and breeding grounds, and causing stress, injury and death. A delegation recalled that the report of the Secretary-General indicated that negative impacts had been identified for at least 55 marine species. A number of delegations highlighted particular species within their maritime zones, including endangered species, that were at risk of harm from AUN.

14. The importance of addressing the socioeconomic impacts of AUN was underscored by many delegations, including impacts on tourism, fishing, transportation, the provision of goods and services, livelihoods, and food security. Some delegations also recognized the importance of this topic for artisanal fishing and coastal communities, indigenous peoples and their cultural heritage.

15. The continuing gaps in knowledge and lack of data with respect to AUN and the urgent need for further research in this area were emphasized by many delegations. Some delegations highlighted the need for further research into the sources of AUN and its impact on marine biodiversity in general. Several delegations stressed the importance of understanding how AUN affected fish, as decreases in stocks could further undermine the sustainability of fisheries. Many delegations also underlined the importance of studying the cumulative impacts on ocean ecosystems from AUN and other stressors, such as climate change, and the interplay of such stressors with AUN, and related socioeconomic impacts.

16. In conducting research, several delegations emphasized the importance of introducing a multi-species approach within priority areas to quantify species' spatial distribution and changes in behaviour. These delegations also suggested that comprehensive baseline studies and long-term monitoring to track future changes in AUN would be of great value, and further suggested to include acoustic data in global ocean observing systems. They also proposed the establishment of in-situ acoustic listening stations. The importance of long-term observations in different parts of the ocean was stressed, as well as the need for enhanced cooperation and coordination and capacity-building. A delegation suggested that the identification of areas for further research on the topic of focus should be achieved as an outcome of the meeting.

17. Several delegations provided examples of research being undertaken at the regional and national levels. A regional initiative to study noise from shipping using real-time noise sensors

to monitor sound levels on a continuous basis was highlighted by several delegations. A number of delegations indicated that they had conducted studies to better understand AUN and its effects on the marine environment, including on marine mammals and fish movements to inform policy decisions. The importance of the science-policy interface was stressed. Reference was made to the role of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects, and the information provided in the First Global Integrated Marine Assessment on the effects of AUN on marine biota. It was noted that the second world ocean assessment to be completed in 2020 would build on the baseline set out in the first assessment and evaluate trends.

18. Many delegations highlighted the need for effective implementation of the United Nations Convention on the Law of the Sea (UNCLOS), which sets out the legal framework within which all activities in the oceans and seas must be carried out. A delegation noted that any measures developed in the future to address AUN would need to be in accordance with the duties, rights and freedoms provided for in UNCLOS.

19. Many delegations recalled the obligation under UNCLOS to protect and preserve the marine environment while respecting the rights and freedoms enshrined therein. Other obligations in Part XII of UNCLOS were also referred to, including article 197. Many delegations expressed the view that AUN was a form of marine pollution and recalled the relevant provisions of UNCLOS, including articles 1 and 194. Several delegations noted that the European Marine Strategy Framework Directive included noise under its definition of "pollution".

20. Furthermore, many delegations pointed out that AUN, as a form of pollution, was covered by SDG 14, target 14.1 of the 2030 Agenda. Several delegations also underscored the importance more generally of addressing the effects of AUN for the implementation of the 2030 Agenda, in particular SDG 14.

22. Several delegations highlighted various management approaches that could be used to address AUN, including greater use of area-based management tools and environmental impact assessments (EIAs). The importance of an ecosystem approach was also underlined. Several delegations proposed creating a detailed map of the distribution of economically and ecologically important marine species, especially endangered species, as well the establishment of marine protected areas for habitats as well as migratory routes of marine species sensitive to AUN. Quiet zones along migratory corridors were also proposed by several observer delegations. Some delegations also noted that cumulative impacts of noise-generating activities should be taken into account in the conduct of EIAs.

23. A number of delegations emphasized the importance of the precautionary approach in light of the data and knowledge gaps. A delegation also highlighted the need for a participatory approach. Some delegations also considered that the polluter-pays principle was also applicable.

24. A view was expressed that it was necessary to incentivize approaches to mitigate AUN. A delegation noted that economic incentives could contribute to mitigation action by encouraging noise mitigation technology and the introduction of "quiet ships". An observer delegation noted that in the shipping industry, improvements in addressing energy efficiency and biofouling, could have beneficial spill-over effects for AUN.

25. Delegations also emphasized the need to raise awareness of AUN through action in intergovernmental processes. Several delegations referred to the General Assembly resolutions on oceans and the law of the sea and on sustainable fisheries which already address the issue. It was suggested by an observer delegation that the General Assembly in its resolution could characterize AUN as a serious form of transboundary pollution to be mitigated and addressed. Another observer delegation proposed that the General Assembly encourage States to make use of the Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) (CMS Guidelines). Several observer delegations proposed that AUN should be recognized as transboundary pollution to be addressed under SDG 14. A delegation suggested the development of guidelines to regulate economic activities that create AUN.

26. Many delegations recognized the important work undertaken by competent international organizations on AUN. In this context, reference was made to the Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life of the International Maritime Organization (IMO) (IMO Underwater Noise Guidelines); the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and its Protocol; the initial IMO strategy on reduction of greenhouse gas emissions from ships; the Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (IMO Biofouling Guidelines); the Code on Noise Levels On Board Ships under the International Convention for the Safety of Life at Sea; and other IMO measures, including routing measures and particularly sensitive sea areas; as well as to the CMS Guidelines; and the role of the Conference of the Parties (COP) of the Convention on Biological Diversity (CBD), as well as the International Whaling Commission, including in convening expert workshops on the effects of AUN and in sharing information regarding the impacts of AUN on marine biodiversity.

27. Several delegations indicated that they adopted a regional directive which required the development of marine strategies to achieve “good environmental status” by 2020, ensuring that the introduction of energy, including underwater noise, was at levels that did not adversely affect the marine environment. They had also established a working group on the implementation of the directive.

28. A number of delegations also highlighted national actions to address anthropogenic underwater noise. Some delegations noted that they had developed regulations and guidelines to minimize the risk of acoustic harm associated with seismic surveys. A delegation noted that it had adopted legislation related to the minimization of harm caused by AUN. Another delegation highlighted how its environmental code of practice set out the guidelines for minimizing the risk of injury and disturbance to marine mammals from seismic surveys, permitting seismic activities only when visual mitigation using observers was possible and requiring the use of the lowest practicable power levels. A third delegation stated that it had adopted an ocean noise strategy which would guide its Government’s work for the next decade. Another delegation noted that its ocean protection plan included both mandatory and voluntary measures, including the provision of financial incentives as indicated in paragraph 24 above. Some delegations noted that they had established monitoring systems for AUN.

29. Some delegations noted their participation in global, regional and sectoral bodies which had addressed the topic of AUN.

30. Some delegations suggested that the effects of AUN could be addressed at the Intergovernmental Conference, under the auspices of the United Nations, to consider the recommendations of the Preparatory Committee established by resolution 69/292 of 19 June 2015 on the elements and to elaborate the text of an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. An observer delegation suggested addressing noise in the context of area-based management tools, including marine protected areas and providing for the possibility of establishing "quiet zones". That observer delegation also proposed devising a robust and transparent EIA process which also applies to AUN-generating activities and addresses cumulative impacts.

31. Delegations underlined the need for concerted international action to assess and mitigate the effects of AUN in all ocean areas, owing to the interconnected nature of the ocean and the transboundary nature of the impacts of AUN. The importance of international cooperation to enhance research and the collection of data, in particular in data-deficient regions was highlighted by several delegations.

32. The need to develop cross-sectoral coordination was also underscored. Delegations also underlined a need for increased cooperation and collaboration between States, intergovernmental organizations and civil society to improve responses to AUN. Furthermore, the need for effective cooperation and coordination at the global level was emphasized and the role of the General Assembly in supporting such cooperation and coordination was highlighted in that regard. A delegation also indicated a possible role for UN-Oceans.

33. It was also suggested that there was a need for different types of cooperation to allow for the most robust and comprehensive partnerships, allowing for enhanced sharing of best practices and the best available technologies. The development of toolboxes, as noted by the Secretary-General in his report (A/73/68, para. 66), was considered useful while giving due consideration to divergence across regions. All relevant global and regional organizations as well as Member States and civil society were encouraged to share their knowledge and exchange experiences.

34. The urgent need for capacity-building and transfer of knowledge and marine technology to address knowledge gaps and uncertainties and alleviate the negative impacts of AUN and the importance of cooperation to that effect was underlined by several delegations. Several delegations specifically emphasized the need for capacity-building activities and initiatives to assist developing States to sustainably manage marine resources, develop management strategies, build national programmes to monitor and study the possible effects of AUN and make well-informed policy decisions. Several delegations pointed out that to achieve this, financial assistance and transfer of technology should be carried out under the principle of common but differentiated responsibilities. The importance of ensuring the transfer of knowledge to small island developing States, least developed countries and land-locked developing States was also highlighted.

Area of focus: Anthropogenic underwater noise

35. In accordance with the format and annotated provisional agenda, the discussion panel on the topic of focus was organized in two segments structured around: (a) sources and environmental and socioeconomic aspects of anthropogenic underwater noise; and (b)

cooperation and coordination in addressing anthropogenic underwater noise. The segments were launched by presentations from panellists, followed by interactive discussions.

1. Sources and environmental and socioeconomic aspects of anthropogenic underwater noise

(a) Panel presentations

36. In the first segment, Christopher Clark, Director and Imogene Johnson Senior Scientist for the Bioacoustics Research Program, Cornell University, provided a scientific overview of sound, its sources and how it propagates underwater, also highlighting the major sources of AUN. Richard Hale, Director, EGS Survey Group, member of the International Cable Protection Committee, addressed underwater sounds from submarine cable and pipeline operations, noting that sound emittance was limited to pre-installation surveying and installation. Lee Kindberg, Head of Environment, Health, Safety and Sustainability, Maersk Line in North America, provided information on shipping as a source of AUN, highlighting mitigation options, such as vessel retrofits. Jill Lewandowski, Chief, Division of Environmental Assessment, Bureau of Ocean Energy Management, United States Department of the Interior, gave a presentation on different sources of sound in offshore energy development, with a focus on oil, gas and wind. Larry Mayer, Director, School of Marine Science and Ocean Engineering and the Center for Coastal and Ocean Mapping, University of New Hampshire, provided an overview of AUN associated with sonar imaging and ocean mapping. Rudy Kloser, Commonwealth Scientific and Industrial Research Organisation, Australia, presented a general overview of potential AUN impacts on a range of species, from zooplankton to whales. Lindy Weilgart, OceanCare and the Department of Biology, Dalhousie University, discussed the impacts of AUN on invertebrates, fish, cetaceans and ecosystems in general. Jonathan Vallarta, Senior Underwater Acoustics Consultant, JASCO Applied Sciences, shared the results of a 2017 study at Paradise Reef, Cozumel, Mexico, which recorded more than one month of continuous underwater acoustic data. Adrián Madirolas, Head of the Hydroacoustic Research Office, National Institute of Fisheries Research and Development, Argentina, described how fish perceive sound and are impacted by AUN. Peter Tyack, University of St Andrews, addressed the challenges of predicting interactions of noise impacts with other stressors on marine species and ecosystems. Joseph Appiott, Associate Programme Officer, Secretariat of the Convention on Biological Diversity (CBD), presented the ongoing work by the CBD on the impacts of AUN, as well as socioeconomic implications of those impacts. Nicolas Entrup, Ocean Policy Expert, OceanCare, presented on the socioeconomic and cumulative impacts from AUN and the need to develop guidance for decision-makers on the associated risks. Andrew Carroll, Assistant Director of Marine and Antarctic Geoscience, Geoscience Australia, addressed the role of science in domestic policy-making on AUN and, drawing on case studies, described Australia's mitigation strategies relating to marine seismic surveys, and provided an overview of Geoscience Australia's research on the impacts of AUN on marine fauna.

(b) Panel discussions

37. Ensuing discussions addressed various sources of AUN and their impacts on nmarine life, as well as research needs and potential measures to address AUN.

38. Ms. Kindberg in response to a question, stressed the need for caution in making the assumption that more energy-efficient ships were necessarily more silent, noting that

the observation related to one class of vessel only thus far. She highlighted that the most economical speed varied by type of vessel and propulsion system, and that certain ships could be noisier at low speeds. She noted the need for further studies regarding optimal speeds for both energy efficiency and sound reduction.

39. A delegation enquired about the correlation between recommendations issued by the International Council for the Exploration of the Sea (ICES) and progress towards more silent ships. Ms. Kindberg noted that naval architects took into account relevant regulations and recommendations but no information was available on the extent to which these were implemented.

40. In relation to AUN from ships, Ms. Kindberg, addressing two questions on the economies achieved by retrofitting vessels to enhance energy efficiency, highlighted reductions in energy consumption and in carbon dioxide emissions since 2007 by 43 per cent per container per kilometre, but noted that the payback period depended on fluctuations in fuel costs.

41. In response to a question on the frequency at which cables had to be replaced, Mr. Hale clarified that telecommunications cables would usually be replaced every 20 to 25 years, while power cables lasted over 50 years. Pipelines had more variable life spans and would be chosen according to the expected time of depletion of offshore oil and gas reservoirs.

42. Addressing a question related to noise emissions from offshore energy, Ms. Lewandowski highlighted studies showing low levels of operational noise from offshore wind farms. A delegation noted that the frequency range of seismic airguns used in offshore energy surveying reached beyond 5 kHz, up to 100-150 kHz, and that dolphins showed disturbance many kilometres away.

43. With regard to ocean mapping, a question was asked on the cost and availability of seafloor mapping technology to developing countries. Mr. Mayer indicated that the cost of equipment ranged from tens of thousands of United States dollars for smaller sonars to a million or two for larger ones, in addition to installation and operating costs, so the total could go up to several million USD. He noted that UNEP GRID-Arendal, with the support of Norway, had assisted developing countries in collecting data to prepare submissions to the Commission on the Limits of the Continental Shelf. Several delegations stressed that the high cost associated with multi-beam sonar mapping was prohibitive for many States.

44. A delegation underscored the importance of taking into account geophonic and biophonic background noise, which was location-specific, in addition to anthropogenic noise. Mr. Tyack observed that, although scientists had measured ocean sounds across many environments, it was challenging to identify the source of some sounds which are recorded in the ocean. It would be important to research chronic AUN. Mr. Vallarta remarked that little was known about the biophony or geophony of coral reefs, and that this would need to be further studied.

45. Addressing a question on whether existing capabilities allowed mapping sensitive areas based on marine mammal locations and overlapping this information with noise sources, Mr. Mayer drew attention to ongoing research aimed at mapping ambient noise

levels, tracking vocalizing marine organisms and capturing ship noise. He noted that while the technology thus existed, government support would be needed to follow-up on the research results.

46. Mr. Clark noted the need for high resolution sensing networks. He indicated that there were acoustically under-sampled spaces in the ocean and that while large libraries of sounds existed these were not sufficiently analyzed. Mr. Mayer suggested using submarine cable networks to assist in getting the spatial coverage needed, noting however that the legal aspects of using cables for dual purposes would need to be addressed.

47. In response to a question concerning research on and trends in noise levels from shipping in the Atlantic, Mr. Clark clarified that while the ability to assess trends existed, there might not be consistency between measurements and model predictions depending on sampling resolutions. He further noted that based on current research, the chances of causing direct physical injury to an animal by AUN were slim as continuous exposure to levels of sounds causing harm was rare. The chronic long-term influence of AUN on marine life was, however, a cause for concern.

48. With regard to the impact of noise on marine mammals, a delegation stated that the long range of cetaceans' communication remained a theoretical concept. In response, Ms. Weilgart stressed that there were many levels to communication, and that it was crucial that cetaceans' mating songs could be heard and correctly interpreted. Mr. Tyack observed that masking models needed to account for the ability of animals to compensate for variations in ambient noise, for example, by calling at a higher frequency. In response to a question regarding the sensitivity of whales to seismic airguns in light of the lack of audiogram data, Mr. Carroll stated that a significant knowledge gap remained, but noted that passive acoustic monitoring could detect changes in movement of sperm whales. A delegation also noted that humpback whales' reactions to marine seismic surveys within a three-kilometre range of seismic surveys had been observed. Mr. Clark further referenced scientific papers indicating that whale ears were mechanically tuned towards low frequencies.

49. A delegation highlighted a mass stranding of melon-headed whales in Madagascar which, according to an independent scientific review panel, was most likely a behavioural response to an ocean mapping programme using sonar systems. Ms. Lewandowski emphasized the need to understand the context and circumstances of such events. She noted that while the sound source itself may not be harmful to the whales, it was important to ensure that no animals were entrapped between the sound source and the shoreline. Mr. Mayer underscored the need for more independent research and peer-reviews.

50. In response to a question, Ms. Lewandowski indicated that some research existed with respect to fish mortality in the proximity of airguns and explosions. Several delegations highlighted the importance of better understanding the impacts of noise on fish stocks, in particular, on commercially important stocks, and the potential consequences for food security. A delegation encouraged regional fisheries management organizations and arrangements to engage on this issue. The role of the Food and Agriculture Organization of the United Nations (FAO) in conducting research in the

context of sustainable fisheries was also recognized and it was suggested that AUN be raised at the FAO Committee on Fisheries.

51. A delegation referred to the 2017 study highlighted by Mr. Kloser, Ms. Weilgart and Mr. Entrup in their presentations, which indicated that airgun operations had a negative impact on zooplankton. Mr. Kloser noted that there had been no previously documented long-range impact of seismic surveys on zooplankton, potentially highlighting the difficulties of conducting studies on the open ocean. He also observed that a recent modelling study did not demonstrate an alarming impact on the biome, but noted that measures to mitigate impacts of seismic surveys would be beneficial. Ms. Weilgart stressed that seismic surveys were conducted all over the globe and that there were limits to plankton's ability to recover. She thus called for proceeding in a precautionary manner.

52. In responding to a question on the availability of research on the potential impacts of AUN on other species, Ms. Weilgart pointed to studies on cephalods which show extensive damage from low-frequency sound. However, she noted a gap in literature with respect to turtles, sharks and rays.

53. With regard to cumulative impacts, Ms. Weilgart and Mr. Kloser highlighted the need to consider the interaction of AUN with other stressors, but noted the challenge of predicting such impacts. In responding to an inquiry as to how a reduction in noise could foster climate resilience, Mr. Tyack observed that the focus should be on those stressors that could be most easily addressed to maintain healthy ecosystems. Ms. Weilgart concurred that noise was a stressor that could be immediately addressed and underscored the connection between certain noise sources, in particular shipping and seismic surveys, and climate change. She highlighted that measures that reduced the carbon footprint and emissions could also reduce underwater noise.

54. Mr. Tyack drew attention to a linkage between ocean acidification and underwater sound propagation, whereby acidification could increase the range of effect of underwater noise. However, there was uncertainty as to how acidification would impact the deep layer of the ocean, where most deep sound energy was concentrated. In response to a query concerning the potential breadth of application of the 'dose-response functions' model, which was highlighted as a potentially useful tool to predict impacts, Mr. Tyack emphasized the broad range of responsiveness to stressors within a population. He also noted the importance of understanding the dose-response relationship for each stressor, and how those stressors interacted.

55. Delegations recognized the need for further research to bridge knowledge gaps in respect of the sources and environmental and socioeconomic impacts of AUN. Noting that most research carried out to date had focused on the impacts of AUN on higher trophic levels, several delegations enquired about research on lower trophic levels, including commercially important fish species and invertebrates. Ms. Lewandowski drew attention to recent research on the effects of sound mostly from pile driving, vessels and airguns on invertebrates, fish and fisheries. She noted that the impacts on fish/fisheries and invertebrates had to be assessed as part of EIAs in the United States. Mr. Entrup noted that it was important to study the socioeconomic impacts of AUN on a global scale.

56. Noting that most of the activities related to offshore energy development occur over the continental shelf, where the most important fishery grounds were located, several delegations asked about specific measures or best practices to mitigate impacts on fisheries from offshore energy development and multi-beam sonar mapping. Ms. Lewandowski noted that while mitigation measures had been developed to reduce impacts on marine mammals, they also benefitted fish in the area. She stressed the lack of knowledge with respect to hearing ranges and the effects of sound on most species of fish, and underlined the need for further research, including on the effects of newly-developed quieting technologies. Ms. Lewandowski further noted that industry was cooperating with commercial fishers in the survey areas in trying to resolve their concerns.

57. A delegation emphasized that, while it was important to mitigate impacts on the marine environment, all sources of sound should be assessed separately, citing the example of seismic surveys in earthquake prone areas as a critical activity. Ms. Weilgart indicated that even in the case of such critical activities, their impacts could be mitigated, for example, through the use of vibroseis.

58. In response to a question about the methodology of a study on the behavioural impact of AUN on scallops, Mr. Carroll pointed out that this study demonstrated the importance of selecting a wide range of metrics and that a combination of both manipulative experiments and behavioral observations was needed for future studies. In response to a question concerning the details of studies conducted on the impact of seismic monitoring on sperm whales, Mr. Carroll explained how data was transmitted in real-time and acoustic propagation modelling was used to estimate the potential range of impact on whales.

59. The role of governments and the measures they could take to address AUN was also discussed. Ms. Weilgart, Mr. Kloser and Mr. Vallarta observed that simple measures which could assist in reducing the impact of noise on marine ecosystems were now technologically available. They emphasized that scientists could continue their efforts to bridge knowledge gaps, but that their ongoing research should not delay action to address noise.

60. A delegation cautioned that it could be difficult to detect and study all the effects of sound on species, especially long-term effects on long-living species. It therefore pointed out that the current evidence of approximately 130 species of marine animals impacted by AUN should suffice to put mitigation regulations in place without further delay.

61. In this regard, several delegations underscored the relevance of the precautionary approach, as reflected in Principle 15 of the Rio Declaration on Environment and Development and article 6 and annex II to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Several delegations also recalled that the International Tribunal for the Law of the Sea in its advisory opinions had considered this approach part of customary international law. These delegations concurred with the view expressed by some panellists that there was already sufficient information available for States to act.

62. A delegation noted that the presentations offered promising examples of sound source mitigation to AUN. Ms. Lewandowski noted that it was difficult to have laws requiring the use of technologies that were still not commercially available. She indicated that other possible options included prohibiting certain activities in areas known to host vulnerable species until adequate noise-reduction and mitigation technologies had been developed. Mr. Madirolas proposed regulating the timing and location of seismic surveys to avoid conducting such surveys during sensitive seasons for migratory species of fish. Ms. Weilgart concurred, but noted that finding the right window for every species would be challenging. She also proposed implementing ship speed restrictions and re-routeing ships to avoid travel over the continental shelf or along the continental slope where sound could reflect and propagate more strongly and thus harm marine life. Ms. Kindberg also suggested that governments could support research, assist stakeholders in utilizing relevant regulations, and disseminate best practices.

63. Mr. Vallarta highlighted the need to review national legislation regulating environmental impacts, including AUN. Mr. Tyack noted the need for policymakers to drive the collection of data necessary to understand and regulate cumulative impacts.

64. Mr. Mayer added that no regulation yet existed on AUN mitigation measures related to multi-beam sonar and that more studies were needed for evidence-based decisions. He pointed out that nonetheless certain mitigation measures were already being implemented, such as having marine mammal observers on board or commencing surveys at a lower power level and using ramp-up procedures, thus allowing animals to retreat.

65. Referring to the issue of standardization, a delegation highlighted the need for effective cooperation among States to address the issue of AUN. Ms. Kindberg stressed that governments should encourage standardization, highlighting that various sectors had different ways of measuring, analyzing and describing sound. Ms. Lewandowski noted that while the need for standardisation had repeatedly been brought up at international conferences on ocean noise and some progress had been made, this topic had not been prioritized due to other research needs, including on the effects on species, and limited resources. She emphasized that more needed to be done, particularly with the International Organization for Standardization (ISO). In this context, attention was drawn to the recently published ISO standard on underwater acoustics terminology (ISO 18405:2017). In response to observations by Mr. Carroll and Mr. Appiott that there was a need to develop common standards, metrics and terminology in respect of underwater noise, a delegation asked about progress in this area at the regional or global level. Mr. Carroll observed that Australia had developed standard monitoring techniques across several sampling platforms and was compiling national repositories of bathymetric data. He suggested that applying standard monitoring techniques to passive acoustics and measurements of sound could allow for comparisons of impacts and sound levels. Mr. Entrup encouraged States to make use of guidelines to promote unified approaches to data and allow a better understanding of the sources and impacts of AUN.

66. Several delegations also highlighted the relevance of tools such as EIAs and marine spatial planning in addressing underwater noise. It was noted that a better understanding of an area, including its ecological importance, should assist planners and policymakers in planning activities.

67. Several delegations stressed the importance of balancing human activities in the oceans with the need to protect the marine environment from the impacts of AUN. Mr. Tyack proposed that a decision-making process should be established to prioritize human activities in the oceans so as to minimize stress on the marine environment.

68. Participants also discussed the importance of communication and dissemination of information on sources and impacts of noise. Mr. Vallarta underlined the need for scientists to effectively communicate their work, to share information and to educate. Ms. Weilgart also emphasized that, until the impacts of AUN were appreciated by noise producing industries, the necessary technological changes to reduce those impacts would not occur.

69. A view was expressed that coastal communities needed to be engaged at the grass roots level on this topic, in addition to engaging government decision-makers. In this respect, it was queried how scientific studies could be meaningful for coastal communities, and what specific actions such communities might take to reduce AUN impacts from their activities. Ms. Weilgart referred to the link between ocean acidification and AUN, and noted that a reduction in run-off and effluent from coastal communities would make reefs more resilient to the effects of ocean acidification. It was also observed that while small boats contributed to AUN, certain boat motors were less impactful than others and that managing overfishing would create more resilience in reefs. Mr. Vallarta suggested that navigation routes could be established to avoid reefs.

70. On the question of stakeholder involvement, Mr. Vallarta shared his experience in working with international counterparts, Mexican authorities and local communities in Cozumel in relation to his study at Paradise Reef. Mr. Kloser also emphasized the importance of stakeholder engagement for the effective implementation of management plans.

71. Mr. Entrup suggested comparing the best available technologies and best practices across countries, as well as providing incentives to promote the development, production and use of quieting technologies. Drawing upon noise-reduction regulations in Germany, where the application of “best available technologies” formed part of the review and assessment prior to providing a licence for pile driving, Mr. Entrup suggested that such regulation could boost the development of noise-reduction technologies and provide economic incentives for their use. Ms. Weilgart also emphasized the importance of economic incentives for stakeholder engagement, noting that such incentives would spur innovation.

72. It was suggested that the issue of AUN be mainstreamed into capacity-building on ocean issues. In response to a question, Mr. Appiott noted that a partnership coordinated by the CBD secretariat focused on supporting capacity-building for integrated management approaches to marine biodiversity, which in some cases related to issues of AUN.

2. Cooperation and coordination in addressing anthropogenic underwater noise

(a) Panel presentations

73. In the second segment, Heidrun Frisch-Nwakanma, IOSEA Turtle MOU Coordinator & CMS Aquatic Species Team, CMS Secretariat, provided an overview of the CMS Guidelines, providing guidance on EIAs to facilitate informed national decision-making on AUN. Stefan Micallef, Assistant Secretary-General, and Frederik Haag, Head, Office for the London Convention/Protocol and Ocean Affairs, IMO, provided an overview of relevant IMO instruments, including the non-mandatory IMO Underwater Noise Guidelines that provide advice on AUN to designers, shipbuilders and ship operators. Rebecca Lent, Executive Secretary, IWC, provided an overview of the IWC's work on AUN, including recommendations aimed at reducing the impacts at the individual and population level through improved monitoring, data collection, and research. René Dekeling, Co-chair of the European Commission's Technical Group on Underwater Noise (TG Noise), presented on the cooperation at the European Union level in addressing AUN. Nathan Merchant, Co-convenor of the OSPAR Intersessional Correspondence Group on Noise, highlighted the progress made under the OSPAR framework in coordinating the monitoring, assessment, and management of underwater noise in the North-East Atlantic. Loúreene Jones, Manager, Ecosystems Management Division, National Environment and Planning Agency, Jamaica, introduced the management efforts of her agency relating to AUN and highlighted the need to address knowledge gaps and for capacity-building. Mariana Melcon, Group leader bioacoustics research line, Fundación Cethus, presented the progress made by the organization in using bioacoustics to study AUN and its effects on marine mammals. Carrie Brown, Director, Environmental Programs, Vancouver Fraser Port Authority, Canada, provided an overview of the Enhancing Cetacean Habitat and Observation (ECHO) program, which aimed at better understanding and managing the impact of shipping activities on at-risk whales. Zo Lalaina Razafiarison, Programme General Coordinator, Ocean State Secretariat, Madagascar, described the challenges for tackling AUN in Madagascar and possible measures to address such challenges. René Dekeling, representing the Ministry of Infrastructure and Water Management, Department for Marine and International Water Policy, The Netherlands, highlighted the need for international cooperation to manage AUN from the perspective of a small State. Véronique Nolet, Programme Manager, Green Marine, presented a voluntary, multistakeholder reporting and certification initiative to address AUN from shipping. Howard Rosenbaum, Senior Conservation Scientist and Director, Ocean Giants Program, Wildlife Conservation Society, discussed the need for effective coordination and cooperation for mitigating AUN impacts, noting the need for a multidisciplinary collaborative effort to address the issue. Frank Thomsen, Senior Scientist and Sales Executive, DHI, representing the Central Dredging Association, addressed the role of industry in managing the impacts of AUN on marine life. Mark Tasker, Vice-Chair of the Advisory Committee of ICES, provided an overview of the role and capacity of ICES related to AUN.

(b) Discussion

74. It was observed by some delegations that there were still large gaps in knowledge including on sound levels, the spatial distribution of various sound sources and the possible effects of these sounds on various marine species, and that more research and cooperation to develop standards for sound levels and noise reduction were needed.

75. Delegations welcomed the work of IMO in mitigating the impact of AUN from shipping. A delegation stressed the need to fill knowledge gaps and to evaluate the effectiveness of the IMO Underwater Noise Guidelines prior to taking further steps. In this regard, Mr. Micallef noted that, so far, no comprehensive assessments on AUN have

been conducted, thus, setting any target for further steps at present would be premature due to large knowledge gaps. Furthermore, the wide variety of ship types, sizes, speeds and operational characteristics added to the complexity of this issue. A delegation stressed the need to advance technical knowledge and design opportunities for quieter vessels and the desirability of strengthening cooperation with classification societies in order to identify standards for different ship classes.

76. A delegation sought views on the possible use of the Energy Efficiency Design Index (EEDI) as a vehicle for developing standards to reduce AUN, given the relationship between AUN and energy efficiency of ships. In response, Mr. Micallef observed that the impact EEDI was to be assessed by the IMO Marine Environment Protection Committee soon. He referred to other relevant work of the IMO, including the Biofouling Guidelines and the initial IMO Strategy on reduction of greenhouse gas emissions from ships, which would require a shift from hydrocarbon engines to hydrogen fuel and hybrid engines. He noted that these efforts might entail collateral benefits for addressing AUN from ships.

77. Following a question regarding how IMO accommodated conflicting interests when establishing a particularly sensitive sea area (PSSA), Mr. Haag highlighted the steps required to establish such an area and noted that the proponent of a PSSA would consult with neighboring countries and interested stakeholders. IMO assisted States in developing PSSA proposals. Mr. Haag also noted that the IMO cooperated closely with several UN agencies, including through UN-Oceans, and other international bodies.

78. A delegation, noting the IMO Underwater Noise Guidelines and the need for international coordination to address AUN at the global level, sought clarification as to whether guidelines for other sources of AUN, such as seismic surveys, could be developed and by which authority. Ms. Frisch-Nwakanma noted that the CMS Scientific Council was considering whether mitigation guidelines should be developed for specific noise generating activities and that proposals for areas of focus would be submitted to the CMS COP 13 in 2020. She further noted that such guidelines would be developed in a consultative manner.

79. A delegation noted the work of the International Offshore Petroleum Environmental Regulators and its Marine Sound Working Group which had focused on airguns and planned to extend its work to pile driving noise from offshore wind farms with a view to identifying best practices.

80. Some delegations sought views regarding ways to further enhance international cooperation and coordination in addressing AUN. Ms. Lent noted that coordination and communication were critical for avoiding duplication of efforts. Mutual attendance at meetings and exchange of documents were helpful in this regard. Mr. Micallef noted that technical cooperation programmes, including seminars and workshops, could benefit from the participation of different agencies. In response to a question on how to strengthen cooperation between international organizations and regional fisheries management organizations (RFMOs), Ms. Lent noted that the IWC had been consulting with RFMOs as part of its by-catch initiative and such relationships could potentially extend to AUN.

81. A delegation highlighted its experience and challenges in the development of noise metrics for southern resident killer whales, and advocated greater coordination and information-sharing. It enquired what the biggest challenge was in developing metrics for monitoring AUN. Mr. Dekeling noted that undertaking noise monitoring was challenging because of its potential cost. Also, the level of detail required for achieving better assessments was still unclear. He further noted that developing metrics for monitoring continuous noise would be another major challenge due to the existing knowledge gaps on its impacts. In this regard, he stressed the need for support from the community of biologists.

82. Addressing a question concerning the breadth of soundscape modelling in the North Sea, Mr. Dekeling indicated that the measurements and modelling would distinguish between different sources of sound and whether those were anthropogenic or natural.

83. In response to a question why stress had not been mentioned as a possible effect of AUN, Mr. Dekeling noted that the knowledge on different forms of stress was limited. He highlighted the need to increase knowledge on the effects of continuous noise, including masking.

84. In response to questions concerning the development of a candidate indicator under the OSPAR framework, Mr. Merchant noted that this candidate indicator, which aimed to quantify the risk of impact from impulsive noise on key species, was being developed based on a risk and evidence-based approach and might be adopted as early as April 2019 or April 2020. In response to a related question on the timeline for TG Noise to develop similar indicators and the possibility for TG Noise to develop other types of management recommendations, Mr. Dekeling explained that TG Noise was tasked to develop a common methodology for assessing data obtained in underwater noise monitoring programmes, rather than management recommendations. It was currently developing such methodology with a view to adopting recommendations on threshold values by the end of 2018 or in 2019.

85. Some delegations asked for more information on the OSPAR Impulsive Noise Registry which was used to aggregate and harmonise data on impulsive noise sources collected by OSPAR Contracting Parties. Mr. Merchant noted that this Registry did not hold simultaneous data on the distribution of species due to capacity constraints, but data from ecosystem surveys might be introduced in the future so that relevant information could be used in a more integrated manner.

86. In response to a question whether guidelines on mitigation techniques for noise from shipping, which might be developed under the OSPAR framework, would be compatible with relevant guidelines of the IMO, Mr. Merchant noted that such guidelines would be advisory in nature, and that the IMO would be consulted to avoid any conflict. He further noted that there was no timeline yet for the development of such guidelines.

87. In response to a query on how to avoid redundant seismic surveys in a given site, it was noted that this issue fell under the responsibility of coastal States and that it was unlikely that a State would issue multiple licenses or permits for seismic surveys for the same area.

88. A delegation drew attention to efforts to establish whale sanctuaries in the South Atlantic, and observed that more research and cooperation was crucial in this regard. Another delegation stressed the importance of regional cooperation in addressing AUN in particular in the Caribbean and inquired what regional cooperation existed in the region and what platforms could be built upon. Noting the lack of a regional mechanism, Ms. Jones noted that the Caribbean Community could be used as a platform for initiating relevant discussions and exchanging information. However, expertise and guidance from international organizations outside of the region, such as the OSPAR Commission and the European Union, would be needed. Mr. Merchant affirmed the willingness of his organization to contribute to efforts facilitating regional cooperation.

89. A question was asked on how to implement the outcomes of the cooperation at the European Union level through regional seas conventions, taking into account differences in membership. Mr. Dekeling noted that in practice States that were parties to regional seas conventions but not members of the European Union had cooperated closely with the European Union.

90. Some delegations expressed appreciation for the efforts of the Vancouver Fraser Port Authority in addressing AUN. It was suggested that an index of ship noise might be created given the use of hydrophones under this program.

91. Some delegations enquired how to encourage other ports to take similar actions as the ECHO Program. Ms. Brown noted the strong interest from multiple stakeholders and drew attention to an effort to create a central repository of information on noise reduction incentives for use by the shipping industry. She also noted that the financial resources for incentives were factored into the budget of her authority.

92. In response to questions regarding the voluntary vessel slowdown trial under the ECHO Program, Ms. Brown shared insights on the potential impacts of such measures on vessels and ports. She noted that participating vessels needed to make up for the additional transit time in other areas to maintain schedules, and that some vessels had not participated due to scheduling or safety concerns. She stressed the voluntary nature of the program to maintain competitiveness. She further noted that it might take a long time for such measures to attract newer and quieter vessels but if other ports were to offer similar incentives, that might be enough to offset the cost for retrofit, or construction of, quieter vessels.

93. Regarding what actions had been taken to engage and sensitize the general public to the ECHO Program, Ms. Brown noted that there had been active community engagement and a wide range of publicity activities to promote public understanding of the program.

94. In response to a question on whether there had been any change in distribution and behaviour of the at-risk whales before and after the implementation of the ECHO Program, Ms. Brown noted that it was difficult to observe and measure how the animals had responded.

95. In relation to modelling in the context of EIAs and risk-based approaches to noise management, Mr. Thomsen clarified that significant effects at the population level could be very small if only a small proportion of the population is affected . Referring to the

conclusion of a 2005 ICES report stating that there was little evidence of effects of sonar on beaked whale populations, a delegation noted that no population-level studies had been done in 2005 and that a recently completed 15-year study had shown evidence of population impact. Mr. Tasker acknowledged that scientific knowledge had increased since 2005. Addressing an ICES finding that fish could respond to the physical presence of a ship as well as the sounds emitted by it, a delegation stressed that fish responses were still scientifically uncertain. Mr. Tasker noted that ICES' role was to achieve consensus on the best scientific advice and levels of uncertainty were often also reflected in its advice.

96. A delegation enquired whether there would be value in creating a new ICES working group focussing specifically on AUN. Mr. Tasker explained that the establishment of such a group would need to be agreed upon by the ICES members. Mr. Rosenbaum drew attention to a voluntary commitment made at the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development ("Ocean Conference") specifically on AUN (No. 18553).

97. A delegation stressed the importance of sharing best practices and experiences from various regions and sectors. Noting that ICES' strength was its holistic perspective as it provided scientific advice both for fisheries and environmental management, that delegation announced that it would make a proposal to the Sixth Committee of the General Assembly for ICES to be granted observer status at the General Assembly.

98. With reference to the use of marine protected areas (MPAs), several delegations concurred that establishing such areas in accordance with international commitments, including Aichi Biodiversity Target 11, was important, noting, however, that a 2014 study had concluded that protected areas established thus far missed 85 per cent of threatened species. Mr. Rosenbaum stressed the importance of MPAs for local communities and the benefits that could accrue from ensuring that MPAs were quieter where particular threats had been identified.

99. Several delegations recalled that the duty to conduct EIAs was enshrined in UNCLOS and had also been recognized as a requirement under customary international law by the International Court of Justice. These delegations further noted that a good EIA, followed by implementing measures, would provide a strong basis to manage any potential impacts.

100. Ms. Nolet clarified, in response to a question, that the third-party individuals undertaking verifications for Green Marine were independent professional verifiers and followed an annual training programme.

Agenda item 4

Inter-agency cooperation and coordination

101. The Under-Secretary-General for Legal Affairs and United Nations Legal Counsel made a statement, in his capacity as Focal Point of UN-Oceans, providing information on the activities of UN-Oceans since the eighteenth meeting of the Informal Consultative Process, including in relation to the topic of focus.

102. He recalled the significant contribution of UN-Oceans to the Ocean Conference. He highlighted the UN-Oceans voluntary commitment registered at the Conference to raise awareness of ocean-related regulatory and policy frameworks and members' activities in support of their implementation. He informed the meeting of two new members of UN-Oceans: the secretariats of the United Nations Framework Convention on Climate Change and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

103. The Focal Point called attention to the 2018 UN-Oceans Work Programme reflecting, inter alia, new activities relating to the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) and follow-up to the Ocean Conference. Among ongoing activities, he highlighted the progress made in the development of a methodology for indicator 14.c.1 of SDG 14 which refers to: "Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources".

104. With regard to the decision of the General Assembly to defer the review of the UN-Oceans terms of reference until its seventy-third session, the Focal Point recalled that during the informal consultations on the General Assembly resolution on oceans and the law of the sea last year, some delegations had expressed the view that they would welcome a UN-Oceans paper to assist them in the review. Such a document was prepared and made available to delegations at the meeting for information.

105. Commenting on the information provided on the proposed methodology for the indicator of target 14c.1, the view was expressed that while the efforts on the development of the methodology by UN-Oceans were supported in general, it was emphasized that States should report directly to the United Nations Statistical Commission on their implementation of SDG 14. It was suggested that the proposed questions be simplified and indicative lists of instruments shortened so as, inter alia, not to disincentivize States from responding to the questionnaire. In response, the Director of DOALOS clarified that the proposed methodology as presented during a UN-Oceans side event in the margins of the twenty-eighth Meeting of States Parties to UNCLOS, consists of a questionnaire containing brief questions relating to binding and non-binding global and regional instruments relevant for the implementation of SDG 14 and its targets, as well as identified indicative lists of instruments for which UN-Oceans members acted as secretariat. She noted that some delegations had provided comments and suggestions at that side event which would be reflected in a revised proposal. The next UN-Oceans side-event during the informal consultations on the draft General Assembly resolution on oceans and the law of the sea this year would offer an opportunity to provide feedback on the revised methodology and to invite volunteers for its pilot testing.

Agenda item 5

Process for the selection of topics and panellists so as to facilitate the work of the General Assembly

106. Referring to paragraph 348 of General Assembly resolution 72/73, the Co-Chairs invited views and proposals on ways to devise a transparent, objective and inclusive

process for the selection of topics and panellists, so as to facilitate the work of the Assembly during informal consultations concerning the annual resolution on oceans and the law of the sea.

107. No statements were made under this item.

Agenda item 6

Issues that could benefit from attention in the future work of the General Assembly on oceans and the law of the sea

108. The Co-Chairs drew attention to the composite streamlined list of issues that could benefit from attention in the future work of the General Assembly and invited comments from representatives.

109. The Co-Chairs also invited representatives to submit additional topics that could benefit from attention in the future work of the Assembly.

110. The Co-Chairs also referred to paragraph 335 of General Assembly resolution 71/257 on the further review of the effectiveness and utility of the Informal Consultative Process at the General Assembly's upcoming seventy-third session and invited delegations to consider addressing this matter under agenda item 6.

111. No statements were made under this item.