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Preparatory process of the 2020 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

Note by the Secretary-General

Summary

The present note was prepared in response to paragraph 22 of General Assembly resolution 73/292, which requests the Secretary-General to prepare a background note, including a proposal for themes of the interactive dialogues for the Conference, to be considered by the preparatory meeting to be held at United Nations Headquarters in New York on 4 and 5 February 2020. The note outlines the status and trends, challenges and opportunities for the implementation of Sustainable Development Goal 14. It addresses the theme of the conference, "Scaling up ocean action based on science and innovation for the implementation of Goal 14: stocktaking, partnerships and solutions". It proposes eight themes for interactive dialogues for the Conference.

I. Introduction

1. The General Assembly in its resolution 73/292 decided to convene the high-level 2020 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 in Lisbon, from 2 to 6 June 2020 ("the 2020 Conference"), under the overarching theme "Scaling up ocean action based on science and innovation for the implementation of Goal 14: stocktaking, partnerships and solutions".

2. The present note was prepared in response to paragraph 22 of resolution 73/292 which requests the Secretary-General to prepare a background note, including a proposal for themes of the interactive dialogues for the Conference, to be considered by the preparatory meeting to be held at United Nations Headquarters in New York on 4 and 5 February 2020. It should be read together with the contributions received for the present note available at: https://oceanconference.un.org/#documentation. It should also be read in conjunction with the background note prepared by the Secretary-General for 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 ("the 2017 Conference"),[1] as well as other reports relevant to oceans and the law of the sea issued by the United Nations since 2017 (for example, A/74/350; A/74/119; A/74/70).

II. Status and trends, activities, challenges and opportunities for the implementation of SDG 14

A. Status and trends

3. Oceans, seas and marine resources are critical to sustainable development, including sustainable ocean-based economies and to the 2030 Agenda for Sustainable Development as a whole. They underpin poverty eradication and food security, are a source of employment and livelihoods, and support the well-being of humans and planet. Marine and coastal ecosystems provide protection from natural disasters. Oceans provide the oxygen we breathe and regulate the global climate acting as a giant sink for greenhouse gases.

4. Since the 2017 Conference raised global awareness of the problems facing the oceans and seas, including through its outcome declaration, "Our ocean, our future: a call for action", various actions as reflected in the present note, have been undertaken at all levels in support of Sustainable Development Goal ("SDG") 14.[2] Also of note with regard to the conservation and sustainable use of the oceans, seas and marine resources is the political declaration adopted at the High-Level Political Forum on Sustainable Development ("HLPF") (A/RES/74/4), as well as the one adopted at the high-level mid-term review of the SAMOA Pathway (A/RES/74/3).

5. The extent to which progress has been made in the implementation of SDG 14 varies among countries and regions and depends on various factors such as the availability of science and innovation, capacity-building and financing, as well as the level of intersectoral and interdisciplinary cooperation at the national, regional and global levels.

[1] A/71/733.

[2] See https://oceanconference.un.org/commitments/.

6. Addressing climate change and its impacts on the oceans remains one of the most significant challenges to achieving the 2030 Agenda and SDG 14 -- ocean warming and deoxygenation, sea-level rise and ocean acidification are increasingly adversely affecting the oceans and their resources.

7. Overall, in spite of the progress made to date, existing actions for the implementation of SDG 14 are insufficient, thus also indicating insufficient progress toward the implementation of international law as reflected in the United Nations Convention on the Law of the Sea ("UNCLOS").[3] Accelerated action is necessary on an urgent basis, in particular in view of the four targets of SDG 14 that mature in 2020 (targets 14.2, 14.4, 14.5 and 14.6).

8. Accelerating action to deliver effectively on SDG 14 would require building on synergies between various ocean-related SDGs and targets, processes and initiatives, including those addressing climate change and biodiversity, and providing for enhanced cooperation and coordination and science and innovation (see section III).

B. Challenges and opportunities

9. Challenges to address the continued deterioration of the marine environment and its resources due to unsustainable anthropogenic activities, are mostly linked to scarce intersectoral and interdisciplinary ocean data and information, inadequate data sharing, insufficient capacity to assess and address ocean issues in an integrated and holistic manner and inadequate capacity for the implementation of international law as reflected in UNCLOS. Furthermore, urgent adoption of adaptation and mitigation measures to address the effects of climate change on the oceans is required.

10. Addressing those challenges through scaling up ocean action, including through science and innovation, increasing and improving cooperation and coordination at all levels, capacity-building and financing and continued monitoring and review of the implementation of SDG 14 can underpin the achievement of healthy and productive oceans and seas for sustainable development.

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

11. Land-based activities continue to represent an estimated 80 per cent of the sources of marine pollution, highlighting the need for integrated source-to-sea approaches to protect the marine environment. Governments cooperate in the implementation of their international obligations, including those under UNCLOS, through, inter alia, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

12. Plastics continue to be the most prevalent debris item recorded, contributing an estimated 60 to 80 per cent of all marine litter. Since 1980, plastic pollution in oceans has increased tenfold. Eight million tons of mismanaged plastic waste is estimated to be entering oceans annually. At such a pace, it is likely that the goal of a significant reduction in marine pollution by the year 2025 will not be achieved without transformative action.

13. In the past several years, global awareness of plastic pollution has surged. Several Governments and the private sector have taken steps to reduce it, for example

[3] Report of the Secretary-General, Special edition: progress towards the Sustainable Development Goals, E/2019/68.

by banning single-use plastics. Plastic waste was also included within the purview of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

14. However, it is also important to address plastic pollution in a more comprehensive manner through the consideration of global approaches aimed at harmonizing standards and practices, as well as catalyzing significant innovation across the entire plastics supply chain.

15. Initiatives such as the Ad Hoc Open-ended Expert Group on Marine Litter and Microplastics, established by the United Nations Environment Assembly in 2017,[4] and the Plastic Waste Partnership in the context of the Basel Convention will help address some of the challenges, but further concerted efforts are required.

16. Similarly, progress in catalyzing action on nutrient pollution resulting in eutrophication has been very modest since 2015. Eutrophication, particularly when combined with the effects of climate change, can lead to severe oxygen loss and so-called "dead zones".

17. Action towards dramatically reducing nutrient pollution, as well as aggressive action to reduce "hot spot" nutrient pollution from untreated wastewater, especially in coastal cities could include a range of policy, regulatory, economic and financial reforms and tools. In this regard, the Colombo Declaration on Sustainable Nitrogen Management provides a roadmap for action on nitrogen challenges.

18. As regards pollution from ships, as the volume of international trade increases, the risk of shipping-related marine pollution might increase and would need to be addressed through regulatory and other measures. Recent initiatives include measures to address biofouling and the transfer of invasive aquatic species, the discharge of sewage and marine plastic litter from ships. Anthropogenic underwater noise pollution is also an area of concern requiring further attention.

Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

19. The state of marine and coastal ecosystems has continued to deteriorate. Exploitation of resources has had the largest relative impact on marine ecosystems, followed by the many changes in the uses of the sea and coastal land. The Living Planet Index shows a 35 per cent reduction of marine species since 1970.[5]

20. Coastal ecosystems are affected by ocean warming, including intensified heat waves, acidification, loss of oxygen, salinity intrusion and sea level rise, in combination with adverse effects from human activities on oceans and land.[6] Coral reefs, for example, are projected to decline by a further 70 to 90 per cent at global warming of 1.5°C with larger losses at 2°C.[7]

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[4] UNEP/EA.3/Res.7.

[5] Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its seventh session, Addendum, Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, IPBES/7/10/Add.1.

[6] IPCC, 2019: Summary for Policymakers. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*.

[7] IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*.

21. Challenges include the integration of the conservation and sustainable management of marine and coastal ecosystems into national development plans; mainstreaming the consideration of biodiversity in sectors such as fisheries and aquaculture; embracing gender equality and women's empowerment; lack of consistent, accessible data; insufficient data sharing; limited coordination and insufficient resources, particularly in developing countries; increases in risks to critical coastal transportation infrastructure; and inadequate cooperation and synergies in implementing biodiversity-related conventions.

22. While payment for ecosystem services schemes pose technical, financial and policy challenges, they also present opportunities for improving the condition and resilience of coastal ecosystems. Exploration of innovative financing mechanisms, such as insurance for coral reefs in the Mesoamerican Reef or carbon market payments in Kenya and Madagascar, provide promising avenues. Other instruments for financing conservation include biodiversity offset schemes, blue-carbon payments, cap-and-trade programmes, green bonds and trust funds.[8] But significant capacity development is required to address in-country coordination as well as cooperation between countries on these issues.

23. Marine spatial planning ("MSP"), which may include ecosystem and area-based approaches, offers opportunities for achieving target 14.2. More countries are now developing marine spatial plans to manage areas within national jurisdiction.

24. Indigenous peoples and their traditional knowledge systems for the management of marine and coastal ecosystems could provide valuable models of stewardship, conservation and ecosystem-based adaptation.

25. Restoration of coastal ecosystems, such as mangroves, tidal marshes and seagrass meadows (coastal "blue carbon" ecosystems), could increase carbon uptake and storage with multiple other benefits.[9] Restoration is thus progressively at the forefront of national and regional agendas including increasingly in National Biodiversity Strategies and Action Plans, Nationally Determined Contributions ("NDCs") and action plans for Regional Seas. The United Nations Decade on Ecosystem Restoration (2021-2030)[10] can provide an opportunity to highlight the potential for marine and coastal ecosystem restoration.

26. Climate action focusing on ocean ecosystems presents an opportunity for mitigation and adaptation action to build resilience and generate co-benefits. NDCs by parties to the Paris Agreement provide opportunities for the protection of coastal ecosystems. Over 70 per cent of current NDCs mention ocean-related topics, in particular with reference to coastal, ecosystems, fisheries and ocean warming impacts and ocean research.

Target 14.3: Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

27. The ocean has very likely taken up between 20–30 per cent of total anthropogenic CO2 emissions since the 1980s.[11] When carbon dioxide enters the ocean, it changes seawater chemistry, resulting, among other changes, in increased seawater acidity. Long-term observations of ocean acidification over the past 30 years have shown an average increase of acidity of 26 per cent since pre-industrial times.[12] Continued carbon uptake by the ocean by 2100 is virtually certain to exacerbate ocean

[8] IPBES/7/10/Add.1.
[9] IPCC, 2019.
[10] A/RES/73/284.
[11] IPCC, 2019.
[12] E/2019/68.

acidification.[13] The methodology for target 14.3 indicator supports the regular reporting of ocean acidification data by Member States and enables regular regional and global analysis.

28. Ocean acidification affects calcifying organisms, such as corals, because their ability to build shell or skeletal material depends on the acidity of the water. It also affects important components of the ocean food web, such as primary producers (plankton), shellfish and crustaceans and marine species that are important in capture fisheries and aquaculture.[14] affecting food security and the livelihoods of fishing and aquaculture communities.[15]

29. Urgent CO_2 reduction by parties to the Paris Agreement would ameliorate further ocean acidification. Target 14.3 can only be achieved if greenhouse gas emissions are significantly reduced.

30. Further investment in research is needed on acidification impacts on biodiversity as well as impacts on ecosystem services and the economy, regional variability of ocean acidification impacts and the impacts of acidification with other stressors, to determine the capacity of important species to adapt to changing ocean conditions. Many gaps in ocean acidification observation prevail, particularly in the Southern Hemisphere. In this regard, the General Assembly has repeatedly encouraged States, individually or in collaboration with relevant international organizations and bodies, to enhance their scientific activity to support continued coordination of scientific work to study and minimize the impacts of ocean acidification and develop ways and means of adaptation.[16]

Target 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

31. To achieve the sustainable development of fisheries, fish stocks must be maintained within biologically sustainable levels. However, the state of marine fishery resources has continued to decline and the fraction of marine fish stocks fished within biologically sustainable levels has decreased, from 90.0 per cent in 1974 to 66.9 per cent in 2015.[17] Simultaneously, the status of some stocks in some regions has improved due to improved fisheries management.

32. As it seems unlikely that the world's fisheries can rebuild the 33.1 percent of current overfished stocks in the very near future, urgent measures are needed to stop the decline of fish stocks and begin the rebuilding process.[18] Moreover, climate change is projected to decrease ocean net primary production and fish biomass,[19] posing additional challenges to fisheries.

33. To address overfishing and illegal, unreported and unregulated ("IUU") fishing, efforts are required for strengthening both regional fisheries management organizations and arrangements and national authorities dealing with fisheries in areas such as monitoring, control and surveillance, application of ecosystem-based

[13] IPCC, 2019.
[14] A/72/70.
[15] Ibid.
[16] A/RES/74/19.
[17] FAO (2018), The State of World Fisheries and Aquaculture 2018 - Meeting the sustainable development goals.
[18] Ibid.
[19] See IPCC, 2019.

approaches and science-based management plans, and use of economic instruments. It has been estimated that rebuilding overfished stocks could increase annual fishery production by 16.5 million tons, worth $32 billion.

34. A number of international legal instruments, in particular UNCLOS and the 1995 United Nations Fish Stocks Agreement require the conservation and management of marine living resources and cooperation among States. In particular, the Resumed Review Conference for the Agreement held in 2016 called for strengthening interaction between fisheries managers and scientists, and other stakeholders, to ensure that conservation and management measures are based on the best available scientific evidence. The Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing is the first international legally binding agreement to combat IUU fishing. Further efforts are needed to make progress in implementing these and other international instruments.[20] It is also necessary to address human rights abuses and transnational crime in the fishing industry which may be related to IUU fishing.

35. Technical solutions, such as the development of global data exchange standards, can help improve fisheries management. The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels presents an opportunity towards the implementation of target 14.4.

Target 14.5: By 2020, conserve at least 10 percent of coastal and marine areas consistent with national and international law and based on the best available scientific information.

36. Area-based conservation measures and management tools, such as marine protected areas ("MPAs"), and other approaches, such as MSP and integrated coastal zone management, play an important role in the protection of coastal and marine areas and resources. When managed effectively, MPAs have successfully conserved biodiversity.[21] They also represent an effective tool to mitigate and adapt to climate change impacts and to increase the resilience of ecosystems. The number and size of MPAs have increased rapidly in recent years, with a more than ten-fold increase since 2000.[22] As of December 2019, MPAs cover almost 8 per cent of the world's ocean.[23] If concerted efforts to implement national commitments continue, target 14.5 is likely to be achieved by 2020.

37. Yet, challenges remain. Uneven geographical distribution of MPAs limits their effectiveness, connectivity and representativeness. While much of the recent growth in MPA coverage has been driven by the establishment or expansion of several very large MPAs by a small number of States, there is minimal MPA coverage in coastal areas and intensely-used seas in many regions. Efforts have been made to develop a definition and guiding principles for the design and management of MPAs. Questions have also been raised regarding the efficacy of management for some MPAs, including their limited designation of no-take areas. Further efforts to measure progress against MPA objectives are required. There is also a need for more inclusive and effective stakeholder engagement that empower local and small-scale fishing communities to participate in the development, designation and management of area-based conservation measures. Such enhanced engagement would also assist in acquiring further data on socioeconomic issues and values linked to MPAs.

[20] See http://www.fao.org/sdg-progress-report/en/#sdg-14.
[21] IPBES/7/10/Add.1, p. 42.
[22] www.protectedplanet.net/marine.
[23] Ibid.

38. Opportunities exist to enhance the governance of MPAs, and their integration with broader spatial planning efforts.[24] Moreover, the value of combining MPAs with other effective area-based conservation measures,[25] and the need to integrate these tools with broader cross-sectoral spatial planning efforts at the national level, is increasingly recognized.

Target 14.6: By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

39. By recent estimates, subsidies to the fishing industry amounted to around $35.4 billion per year, of which around $22.2 billion were provided in forms that tend to enhance fishing capacity, which in turn, can contribute to overcapacity and overfishing.[26]

40. During the World Trade Organization ("WTO") negotiations on fisheries subsidies, members agreed on an intensified programme of work leading up to the WTO Twelfth Ministerial Conference to be held from 8 to 11 June 2020. There remains a need to accelerate the pace of the WTO negotiations on fisheries subsidies that contribute to: IUU fishing; overcapacity and overfishing; cross-cutting issues which include special and differential treatment, disputes, remedies for non-compliance, and transparency and notifications.

41. Many regional trade agreements have started implementing environmental rules, including specific clauses dealing with fisheries subsidies.

Target 14.7: By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

42. The sustainable use of marine resources and the development of sustainable ocean-based economies present vital opportunities for SIDS and LDCs to increase economic benefits, including from fisheries, aquaculture, tourism, maritime transportation, renewable energy, marine biotechnology and sea water desalination.

43. In the fisheries sector, recent figures suggest that its contribution to the GDPs of SIDS and LDCs is increasing (from 6.69 per cent in 2011 to 13.68 per cent in 2015 for SIDS and from 2.28 per cent in 2011 to 3.48 per cent in 2015 for LDCs).[27] In light of increasing pressures on marine ecosystems and the fish stocks therein, the socioeconomic benefits of fisheries will need to increasingly rely on enhanced value addition of fisheries products, while ensuring adequate benefit sharing for fishers. Aquaculture is growing in importance as a source of livelihoods for many coastal communities and the sustainable management of this sector can benefit SIDS and LDCs.

44. SIDS have a strong competitive advantage in the tourism sector given their location and natural and cultural resources. This sector already accounts for a

[24] UNEP, Enabling Effective and Equitable Marine Protected Areas – Guidance on Combining Governance Approaches (2019).
[25] See CBD/COP/DEC/14/8.
[26] Sumaila, U. R, Lam, V, Le Manach, F., Swartz, W., Pauly, D. (2016). Global fisheries subsidies: An updated estimate. Marine Policy 69: 189–193.
[27] http://www.fao.org/sdg-progress-report/en/#sdg-14.

significant proportion of the GDP of many SIDS. However, some SIDS require infrastructure development and improved transport to create economic benefits from this sector.

45. Integrated, cross-sectoral governance with stakeholder engagement is key to the development of sustainable ocean-based economies for SIDS and LDCs. Some SIDS have already taken initiatives at national and local levels to implement institutional reforms and prepare action plans to address "blue growth" objectives. SIDS have also demonstrated innovative pathways for financing ocean-based initiatives.

46. Many SIDS and LDCs remain in need of technical and financial assistance to develop sustainable ocean-based economies, including in the identification of the priorities and advantages, adapting their legal and political frameworks, harnessing capital, planning support and on-the-ground pilot Projects. A variety of capacity-building activities and technical assistance programmes for SIDS and LDCs have been undertaken.

Target 14.a: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

47. Scientific knowledge, research capacity and marine technology are essential to encourage innovation to scale up solutions for the conservation and sustainable use of the oceans, seas and marine resources.

48. Progress has been made in ocean sciences, including in observations, data and information flow, the provision of services including food, weather and climate predictions and disaster risk reduction. However, enhancements in research to enable an understanding of fundamental ocean processes and to support effective policy-making and implementation, are required.

49. The methodology for indicator 14.a.1 was developed in the context of the Global Ocean Science Report ("GOSR"), which also acts as a system to collect data on the status and trends in ocean science at the global level. The second edition of the GOSR will provide a baseline on ocean science capacity for the United Nations Decade of Ocean Science for Sustainable Development (2021–2030), including with respect to transfer of marine technology ("TMT"). In support of the IOC Guidelines and Criteria for the Transfer of Marine Technology, the development of an IOC global TMT clearing-house mechanism is being considered.

50. There are a number of challenges and opportunities related to the implementation of target 14.a. Inadequate governance and science-policy dialogue hamper many countries from participating in ocean science or benefitting from existing knowledge. In fisheries, challenges include the lack of data to analyze stock status, lack of global models and gaps in fisheries data. For biodiversity conservation, the need for multi-level governance policies beyond conservation measures to achieve target 14.a is noted, as well as the need for the co-production of knowledge. Other challenges include the need for sustainable funding; ocean science expenditure is highly variable worldwide, and government funding is modest overall, though investment is increasing. It is also necessary to translate the increase in scientific knowledge into effective development opportunities, especially for SIDS and LDCs; to overcome capacity limitations and find new ways of garnering investment. Basic and applied research should be linked in order to deliver impact in terms of improving the state of the marine environment and ocean economy. Acceleration in science and

technology also provide a challenge and an opportunity for the coherent implementation of UNCLOS and its provisions on marine scientific research and TMT.

51. Innovation, technological development, capacity-development and ocean literacy are enabling factors that can support actions at all levels of society. Furthermore, specific efforts should be targeting developing countries, in particular SIDS and LDCs, in order to assist them to strengthen their capacity through Science, Technology and Innovation policy frameworks and institutional mechanisms.

Target 14.b: Provide access for small-scale artisanal fisheries to marine resources and markets

52. Small-scale fisheries globally account for 90 per cent of the 300 million fishers and fish workers and more than half of total production on average, in terms of both quantity and value.[28]

53. Challenges to access markets and resources for small-scale artisanal fishers include competition over resources, insufficient market information, knowledge and capacity constraints, high post-harvest losses and a lack of access to financial services. A range of actions can help address these challenges, including promoting co-management of resources, the development of equitable and sustainable business opportunities, improved access to education and other public services, community empowerment and adoption of legal measures. It is important that fishers, including small-scale fisheries, participate in these processes.

54. Women constitute almost half of artisanal or small-scale fishers and fish workers. They lead the postharvest sector but face many obstacles, including lack of social protection and unequal employment opportunities. Empowerment of women and support to the postharvest sector is therefore key to achieving this target.

55. To promote small-scale artisanal fishers' and fish workers' access to marine resources, services and markets, most countries have developed targeted regulatory and institutional frameworks. However, the effectiveness of the implementation of these frameworks varies.[29] Developing countries need assistance in creating and implementing a policy and regulatory environment that allows small-scale artisanal fishers to realize the full economic potential. The full implementation of the relevant FAO Voluntary Guidelines also present opportunities to contribute to the implementation of target 14.b.

Target 14.c: Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"

56. Full and effective implementation of the international legal framework for the oceans, with UNCLOS at its core, is essential to achieving the conservation and sustainable use of the oceans and their resources. That framework encompasses the Convention's two implementing agreements[30] as well as instruments developed by competent international organizations, including at the regional level, covering many aspects of ocean use. Progress in their implementation is critical to achieve target 14.c

[28] E/2019/68.
[29] Ibid.
[30] The Agreement relating to the implementation of Part XI of the Convention and the United Nations Fish Stocks Agreement.

and support the necessary cross-sectoral and integrated efforts to achieving all targets of Goal 14.

57. Steps have been taken at all levels to strengthen the implementation of international law, as reflected in UNCLOS, including through programmes and activities to enhance institutional and human capacities, initiatives to support the development and strengthening of national legal and governance frameworks for the oceans and their resources, and raising awareness of relevant instruments to promote their ratification and full implementation. Data to be collected based on the approved methodology for indicator 14.c.1 will provide, for the first time, a baseline of the current state of implementation of the Convention and its implementing agreements with respect to the conservation and sustainable use of the oceans and their resources.

58. Efforts to strengthen the international legal framework through the elaboration of new instruments include, in particular, the Intergovernmental Conference convened by the General Assembly to elaborate the text of an international legally binding instrument under the Convention on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. The International Seabed Authority is also developing exploitation regulations, which will provide a framework for regulating and managing exploration and exploitation of mineral resources in the Area in a sustainable manner.

59. In spite of this progress, there are challenges that are yet to be fully addressed with regard to achieving universal participation in the Convention and other relevant instruments. Processes like the resumed Review Conference on the United Nations Fish Stocks Agreement and the upcoming review at the third Meeting of Parties to the Port State Measures Agreement can play an important role in this regard.

60. If not addressed, scientific, technical, financial, institutional and legal capacity constraints, in particular for developing countries, will continue to preclude significant progress in the implementation of international law as reflected in the Convention. For example, further efforts are required to address the technical and scientific capacity limitations that hinder developing States, including SIDS, in making the required deposits of charts or lists of geographical coordinates describing the outer limits of their continental shelves, in accordance with the Convention.

61. Increasing participation in relevant instruments, addressing challenges of implementation, including resource and capacity constraints, strengthening intersectoral cooperation, coordination and information sharing at all levels and the timely development of new instruments to address emerging challenges will be key elements in accelerating implementation of this target. With regard to the need for sustained funding, the establishment of a dedicated financial mechanism, or other innovative schemes to stimulate private sector support, would merit consideration.

Cross-cutting issues

Financing

62. There have been a number of conferences, including the 2017 Conference, and other fora which have been catalyzing a number of initiatives and partnerships aimed at promoting financing for the development of sustainable ocean-based economies. At the country-level, there are good practices of financing ocean-related activities, such as the debt for nature swap and sovereign blue bond by Seychelles. Other examples include the Blue Action Fund, and the World Bank's PROBLUE and Sustainable Development Bonds highlighting the critical role of ocean and water resources. Other initiatives and partnerships include: the development of the Sustainable Blue Economy Financing Principles, UN Global Compact Sustainable

Ocean Principles and the United Nations Office for Project Services Social Impact Investing Initiative. While capital is increasingly flowing into the development of sustainable ocean-based economies, additional prioritization and communication of development needs at the national and regional levels will further reinforce the impact of investments and blended finance approaches.

Capacity-building

63. While there are many capacity-building activities taking place, further concerted efforts are required. Piece-meal and one-off projects need to be developed into programmes against clear needs and priorities and delivered at impactful scales. Fellowships and grant systems with support from the Governments and donors to support a new generation of experts are critical, including programmes to reinforce capacity in ocean sciences and science-policy interfaces. In addition, there is a need to enhance not only North-South but also South-South and triangular cooperation to achieve SDG 14.

Ways to promote collaboration, cooperation and coordination, as well as preventing the unnecessary duplication of efforts, to ensure further efficiency and effectiveness in support of Goal 14

64. The General Assembly has consistently emphasized that UNCLOS sets out the legal framework within which all activities in the oceans and seas must be carried out. Furthermore, it has reaffirmed the need to improve cooperation and coordination at the national, regional and global levels, to support and supplement, inter alia, the efforts of each State in promoting the implementation of the Convention and the integrated management and sustainable development of the oceans and seas.

65. The General Assembly annually reviews developments relating to ocean affairs and the law of the sea, assisted by the ocean processes it established, such as the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea ("ICP"). The ICP, which is mandated to facilitate the Assembly's review, with an emphasis on identifying areas where coordination and cooperation at the intergovernmental and inter agency levels should be enhanced, has considered a number of topics from the perspective of the three pillars of sustainable development, including "Ocean Science and the United Nations Decade of Ocean Science for Sustainable Development" in 2019.

66. "Our ocean, our future: call for action" adopted at the 2017 Conference also calls for the strengthening of cooperation, policy coherence and coordination among institutions at all levels,[31] while the political declaration of the 2019 HLPF highlights the importance of solving challenges through international cooperation and enhancing global partnerships.

67. Challenges common to cooperation and coordination include the lack of human and institutional capacity and financial resources to overcome fragmentation and competing objectives and conflicting solutions.

68. Integrated approaches to achieve SDG 14 require the involvement of diverse actors, for example scientists, policy-makers, managers, communities and businesses at various levels, working towards a set of common and interlinked, but diverse goals. Involving such diverse actors in knowledge-generation, policy-making or management requires awareness by those actors of the importance of the ocean.

[31] A/71/312, para 13(b).

69. As regards inter-agency cooperation, UN-Oceans was established as the mechanism that seeks to enhance the coordination, coherence and effectiveness of activities related to oceans and coastal areas. UN-Oceans terms of reference also provide for collaboration between UN-Water and UN-Energy in recognition of the interrelations between oceans, water and energy. In "Our ocean, our future: call for action", the Secretary-General was called upon to continue his efforts to support the implementation of SDG 14, in the context of the implementation of the 2030 Agenda, in particular by enhancing inter-agency coordination and coherence throughout the United Nations system on ocean issues, taking into consideration the work of UN-Oceans. The General Assembly will review the terms of reference of UN-Oceans at its 75th session.

70. Cross-sectoral cooperation and coordination on ocean issues at the national level can foster integrated decision-making, reflecting a broad range of interests and viewpoints. Fragmentation and lack of cooperation and coordination represent one of the main challenges to institutional effectiveness at all levels. Opportunities remain in terms of capacity-building and institutional strengthening to ensure cooperation and collaboration between different government institutions in implementation of national strategies and plans.

71. Cooperation at the regional level has also been identified as one of the key elements to accelerate SDG 14, for example, for its potential to enhance financing for development.

72. Cooperation and coordination can be improved by building holistic governance of ocean activities at the global and regional levels; establishing mechanisms for cooperation on issues of common interest between regional organizations with different mandates; establishing transboundary cooperation given the interconnected nature of marine ecosystems (for example the Coral Triangle Initiative); and the establishment/strengthening of mechanisms for collaboration, knowledge-sharing and exchange of best practices.

III. Scaling up ocean action based on science and innovation

73. Science and innovation are essential tools for addressing the challenges to SDG14 and to achieving the goals of the 2030 Agenda. They are key to the development of integrated and coordinated approaches that capture the interlinkages among its targets and synergies between SDG 14 and the other ocean-related SDGs.

74. The data obtained from marine scientific research and its supporting technologies can improve knowledge of various drivers of change, events and disasters. In order to do so effectively, marine science needs to be mainstreamed into decision-making and be interdisciplinary and intersectoral, including to achieve a deeper understanding of the ocean/atmosphere interface and the land/ocean connection. Scaling up ocean action will require understanding the complex challenges of sustainable development through both knowledge and potential solutions. Interdisciplinary science and cross variable analysis of cumulative impacts on the oceans will address growing challenges to ocean management, link the implementation of SDG 14 to other SDGs, create synergies and avoid trade-offs.

75. Challenges can be turned into opportunities by scaling up ocean action in various areas in favour of sound science, access to necessary data and information, and the effective utilization of such data and information by decision-makers for effective integrated ocean management and conservation. This requires consistent and comprehensive global ocean observation, including biological observation and

monitoring to better understand ocean ecosystems and species, changes over time, gaps in understudied locations, and gaps in understanding the biodiversity in the deep sea and other understudied marine biodiversity.

76. The resulting data and information gathered from observation and monitoring must also be accessible to all and readily available through open access databases. This is true to the 2030 Agenda core principle of "leave no-one behind". Improving access to data through open access databases will require standardization of data, interoperability between databases, and synthesis of data into information for decision-makers. International science partnerships are key for connecting the dots for ocean management. There is a need for long-term, well-resourced and inclusive scientific partnerships to be complemented with innovation partnerships on priority ocean issues to improve governance, build capacity of scientists, and facilitate technology transfer.

77. To achieve SDG14, social science data will be needed to underpin successful application of management and conservation tools in human-ecological systems in marine and coastal areas, and to ensure that costs and benefits of conservation are equitably shared. Data on human uses of the ocean are required to design management measures. In the context of development of sustainable ocean-based economies, social science data will also help address inequality, basic needs, employment and well-being, and provide opportunities and benefits for all segments of society. Similarly, knowledge co-production between traditional knowledge and science has the potential to help address complex and interconnected environmental and social problems. In addition, citizen science can mobilize communities around environmental issues and can help collect much larger amounts of data than could be done by scientists alone.

78. The achievement of SDG 14 and its targets requires a strong science–policy interface to provide timely scientific information that tracks progress towards SDG 14 and its targets, highlighting actions that have been successful and that could be scaled up. Several international instruments and science-policy interfaces have been formally established by the United Nations, or work with United Nations agencies. The Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects, and its second world ocean assessment, and the United Nations Decade of Ocean Science for Sustainable Development have the potential to play an important role in strengthening the science-policy interface. In addition, the 2030 Agenda envisages that the Global Sustainable Development Report will strengthen the science-policy interface and could provide a strong evidence-based instrument to support policy-makers.

79. With the scientific understanding of the ocean gradually improving, technological innovations in many fields are moving forward rapidly. These can make ocean uses more sustainable and such solutions can be scaled up to accelerate implementation of SDG14. In addition, capacity-development and technology transfer are urgently needed to ensure that the scientific capacity gap between developed and developing countries is bridged. To achieve this, sustainable financing is required to support research and development, as well as the sharing of information and transfer of skills and technology.

80. "Our ocean, our future: call for action" recognizes the special importance of certain SDG 14 targets for SIDS and LDCs. Scaling up ocean action would include developing the technological capacity of SIDS, including through the United Nations Technology Bank for Least Developed Countries; establishment of dedicated regional oceanographic centres; enhancing technical assistance and collaboration among SIDS universities and other regional ocean-focused institutions; and promoting the participation of LDCs in ocean science. Additional ways to scale up ocean action

based on science and innovation include strengthening cooperation and coordination, enhancing financing opportunities and capacity-building.

81. The current pace of scientific advances and data collection has generated a solid foundation for better management of the ocean, but it is not enough to realize a future sustainable ocean. Innovations in science and technology will play a key role in reconciling the objectives of environmental conservation with those of economic development and societal inclusion.

82. In this regard, developments in information and communications technology (satellite, sensors radars, sonar etc) can play a significant role in the conservation and sustainable use of the oceans through improved monitoring and reporting which leads to increased accountability. Satellite-based monitoring can deliver timely and accurate data on a global basis, while local sensors deliver on the spot updates in real-time. Big data can be used to analyze short- and long-term trends in terms of biodiversity, pollution, weather patterns and ecosystem evolution, and to plan mitigation activities. Mobile devices can help access ocean information and take an active role in monitoring progress against conservation targets. Trans-ocean and regional telecommunication cable systems equipped with sensors could also enable real-time data for ocean climate monitoring and disaster mitigation. Earth observation ("EO") data, particularly radar data, can be used to create maps to monitor the spread of oil spills and to provide data in near-real time to authorities involved in clean-up efforts.

83. Potential solutions to detect and/or reduce illegal fishing activities combine EO data with information from fishing-vessel databases and oceanographic data, providing reports that can alert officials to suspicious vessel movements. Remotely sensed data and Global Navigation Satellite Systems can also be used to improve productivity of fishing activities, as well as compliance with fishery regulations.

84. Technology and innovation in the energy supply sector can substantively improve the performance of shipping. Options to reduce emissions from the energy sector include increasing the uptake of renewable energy technologies, improving energy efficiency and reducing fugitive emissions from fuel extraction processes. These developments applied to the shipping industry could lead to greener, more efficient and safer shipping, minimizing the impact of marine traffic and port operations.

85. Innovations in infrastructure will be critical to the achievement of all SDGs. For SDG14, this includes reducing marine pollution through improved wastewater management; incorporating coastal erosion in flood risk management plans; supporting renewable energy sources; enhancing port infrastructure to reduce transportation routes and thus fuel use and exhausts; or using digital technologies for combating overfishing.

86. There are many promising solutions, including tools, practices and partnerships that can transform local fisheries, biodiversity conservation and MSP. The challenge is to scale them up to be applied globally, so that the solutions match the scale of the problems facing the ocean. Scaling up solutions in the complex and interconnected ecological, social and economic ocean-related systems, will require an understanding of the interdisciplinary science underpinning these activities, and the factors affecting human values and choices. One approach is to learn from the so-called "bright spots", places where ecosystems are substantially better. With regards to coral reefs for instance, a study found that bright spots are characterized by strong sociocultural constructs, high levels of local engagement in management, high dependence on marine resources, and beneficial environmental conditions such as deep-water refuges. In general, solutions that are implemented with full participation of local

communities, that provide local benefits, and that apply community knowledge, have a better chance of succeeding.

87. Greatest benefit is derived by combining global and local solutions, some of which could be implemented or scaled-up immediately. One example is the combined application of emissions reductions and nature-based adaptation and mitigation solutions for climate change. Implementing solutions will inevitably require changes for example, consumer behaviour regarding single-use plastics, changes in how industry uses these materials, as well as innovative alternatives.

88. "Our ocean, our future: call for action" called on all stakeholders to approach the implementation of Goal 14 in an integrated and coordinated way and promote policies and actions that take into account the interlinkages among its targets, and the potential synergies between Goal 14 and the other Goals.[32]

89. The contributions also underscore this need for integration in order to achieve SDG 14. This includes integration within ocean science, involving multiple disciplines, knowledge systems and diverse stakeholders in knowledge production; in policy-making, ensuring coherence between laws and policies for various sectors; in development, uniting policy-makers with managers, local communities and other stakeholders; and between scientists and policymakers to ensure that knowledge produced is usable and useful for action. Examples of integrated approaches include the use of MSP and area-based management tools; ecosystem approaches; integrating urban planning with MSP; applying a source-to-sea approach to land-based pollution; taking a holistic approach to infrastructure and to waste, by creating circular economies and introducing reduce-reuse-recycle thinking into all aspects of society.

IV. Development of partnerships

90. The development of effective partnerships enabling collective action toward the implementation of SDG 14 is of critical importance. The acceleration of action to that end requires multi-stakeholder, including public-private and cross-sectoral partnerships.

91. The inputs to the present note indicate that areas where partnerships aimed to fill scientific gaps and further innovation for SDG 14 include: (1) addressing land-based sources of marine pollution, such as reducing marine plastic litter and microplastics through circular economy practices; (2) restoring marine and coastal ecosystems; (3) improving fisheries management using ecosystem approaches; (4) accelerating sustainable tourism; (5) reducing emissions from maritime transport; (6) helping build more sustainable and climate-resilient ports; (7) collecting and sharing data through strengthened observation networks; and (8) providing for the transfer of marine technology.

92. There is no one-size-fits-all approach to developing effective partnerships: some areas require particular types of actors as key partners. For example, partnerships for the effective functioning of area-based conservation measures and management tools are more likely to succeed if meaningful involvement of local fishing communities is ensured. Partnerships for outreach activities such as awareness-raising would be effective if they can involve the youth.

93. Efforts to assist with the implementation of existing partnerships and stimulate new partnerships could be facilitated by: (1) incentivizing the sharing of good practices and giving visibility to well-performing partnerships; (2) strong engagement

[32] Ibid., para 13(a).

and communications strategy to fill geographical, stakeholder and substantive gaps; (3) space for meaningful interaction and networking amongst partnerships; and (4) financial support for long-term sustainability.

94. The 2017 Conference contributed to forging and catalyzing partnerships, in particular through the generation of 1,380 voluntary commitments in support of SDG 14.[33] While these voluntary commitments covered all ocean basins and all SDG 14 targets, a number of gaps remain, in relation to: participation, targets, geographic coverage and linkages with other SDGs. More engagement of academic institutions, the scientific community, the private sector and philanthropic organizations should be further encouraged. Areas where further voluntary commitments are required include: small-scale and artisanal fisheries; ocean acidification; marine biotechnology; and innovative ocean technologies and engineering solutions, such as marine renewable energy. Furthermore, efforts to increase scientific knowledge, capacity-building and transfer of marine technology should focus on the regions and countries that are farthest left behind.

95. A number of voluntary commitments have provided updates reporting good progress. Moving forward, however, it is also important to better understand challenges to the delivery of voluntary commitments that are lagging behind.

96. Building on the success demonstrated by, inter alia, the 2017 Conference, a number of other ocean-related processes now utilize voluntary commitments and pledges as a way to accelerate implementation of SDG 14 and other ocean-related SDGs. Maximizing the co-benefits arising from these voluntary commitments and pledges by exploring further synergies between various related processes and initiatives would contribute to this goal.

V. Possible themes for the interactive dialogues

97. In order to address the implementation of SDG 14 in a comprehensive manner, it is important for the eight interactive dialogues to address all the targets under Goal 14. This requires designing appropriate clusters of issues addressing several targets in conjunction. These clusters will also help galvanize momentum towards the implementation of Goal 14 in the decade of action and delivery for sustainable development. The following themes are proposed:

1. **Addressing marine pollution** (target 14.1)
2. **Managing, protecting, conserving and restoring marine and coastal ecosystems** (targets 14.2 and 14.5)
3. **Minimizing and addressing ocean acidification** (target 14.3)
4. **Making fisheries sustainable and providing access for small-scale artisanal fishers to marine resources and markets** (targets 14.4, 14.6 and 14.b)
5. **Promoting and strengthening sustainable ocean-based economies, in particular for small island developing States and least developed countries** (target 14.7 and other relevant targets)

[33] The list of these voluntary commitments is included in the report of the 2017 Conference (A/CONF.230/14). The registry (https://oceanconference.un.org/commitments) has been kept open after the conclusion of the 2017 Conference, and the total number of voluntary commitments is 1,573 as of 27 November 2019.

6. **Increasing scientific knowledge, and developing research capacity and transfer of marine technology** (target 14.a)

7. **Enhancing the conservation and sustainable use of oceans and their resources by implementing international law, as reflected in the United Nations Convention on the Law of the Sea** (target 14.c)

8. **Leveraging interlinkages between Sustainable Development Goal 14 and other Goals towards the implementation of the 2030 Agenda**

VI. Conclusions

98. Anthropogenic pressures are creating unsustainable levels of stress on the oceans, seas and marine resources. Global temperatures have already warmed by approximately 1ºC above pre-industrial levels, due to human activities.[34] There is overwhelming evidence that this is resulting in profound consequences for ecosystems and people. Sea levels are rising, and the ocean is warmer, more acidic and less productive. Plastic pollution continues to enter the ocean at an alarming rate, a third of fish stocks are now overexploited, and half of all living coral has been lost. Progress is being made, and favourable trends in the implementation of some aspects of Goal 14 are evident. Yet, action is not advancing at the speed or scale required to meet our goals. Greater urgency and ambition is required at all levels to address the global emergency regarding the oceans. A concerted global push for action anchored in sound science is critical in this regard. To that end, the Conference will contribute to the implementation of SDG 14 by generating science-based and innovative solutions to address ocean-related challenges and provide inputs to the HLPF and the United Nations Decade of Ocean Science for Sustainable Development.

[34] IPCC, 2018.