



Ocean and climate change dialogue 2022

Informal summary report by the Chair of the Subsidiary Body for Scientific and Technological Advice



I. Introduction

The ocean dialogue was mandated by the Conference of the Parties at its twenty-sixth session and took place on 15 June 2022.

The dialogue highlighted the vital importance of the ocean to livelihoods and biodiversity and as a fundamental component of the climate system, while highlighting the need, options and opportunities for greater ocean-related climate action.

Discussions were centred around how to strengthen and integrate national ocean climate action under the Paris Agreement and how to enable ocean climate solutions and support, including financial support.

This informal summary report provides key messages and a summary of proceedings as well as ways forward identified in the dialogue.

“This is the start of a new mandate and a new opportunity for strengthening ocean and climate change action under the UNFCCC.” Tosi Mpanu Mpanu, SBSTA Chair

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Abbreviations and acronyms

CBD	Convention on Biological Diversity
COP	Conference of the Parties
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	greenhouse gas
IMO	International Maritime Organization
IOC-UNESCO	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
LDC	least developed country
LEG	Least Developed Countries Expert Group
MPA	marine protected area
NAP	national adaptation plan
NDC	nationally determined contribution
NGO	non-governmental organization
NWP	Nairobi work programme on impacts, vulnerability and adaptation to climate change
OA	ocean acidification
Ocean Panel	High Level Panel for a Sustainable Ocean Economy
R&D	research and development
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SIDS	small island developing State(s)
SROCC	Intergovernmental Panel on Climate Change Special Report on the Ocean and Cryosphere
TEC	Technology Executive Committee
UNEA5	Fifth Session of the United Nations Environment Assembly
UNEP	United Nations Environment Programme
WIM	Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts

II. Key messages¹



¹ See the [ocean dialogue webpage](#) for a link to key messages in text

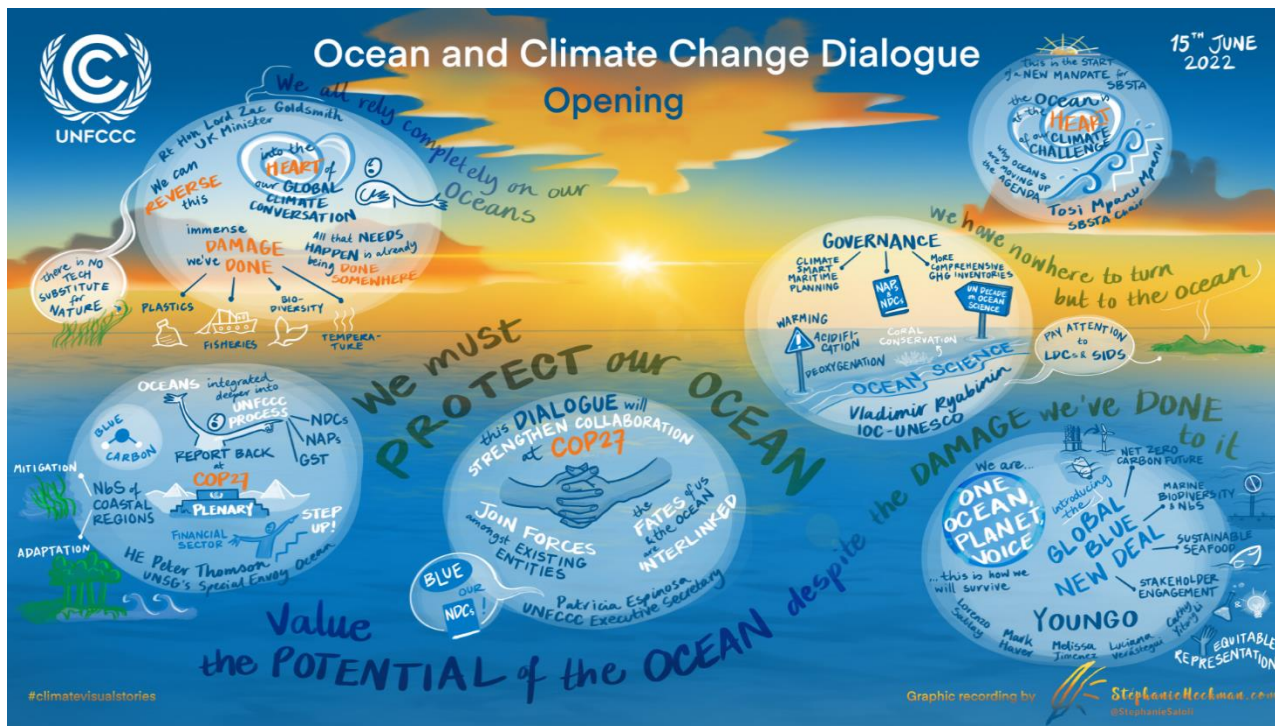
III. Background

“The connectivity of the causes and effects of the ocean-climate nexus is at the very heart of dealing effectively with the climate crisis. In essence dealing effectively with the required transition will involve a massive worldwide transfer of financial resources to the sustainable blue economy. Let it be.” H.E. Peter Thomson, UN SG’s Special Envoy for the Ocean

1. [Decision 1/CP.26, the Glasgow Climate Pact](#), invited the SBSTA Chair to hold an annual dialogue, at the first sessional period of each year, on ocean and climate change to strengthen ocean-based action under the UNFCCC (the “ocean dialogue”), and to prepare an informal summary report thereon for consideration by the COP at its subsequent session. The decision also invited the relevant work programs and constituted bodies under the UNFCCC to consider how to integrate and strengthen ocean-based action in their existing mandates and work plans and to report on these activities within the existing reporting processes, as appropriate.
2. The SBSTA Chair invited submissions on possible topics for the ocean dialogue at SBSTA 56 via the [submissions portal](#) (search “ocean”). On the basis of these submissions, the SBSTA Chair prepared an information note which included an analysis of the information in the submissions and a proposed approach, guiding questions and agenda for the ocean dialogue.
3. The ocean dialogue began with a high-level opening. It then explored two topics through moderated panels: 1) Strengthening and integrating national ocean climate action under the Paris Agreement and 2) Enabling ocean climate solutions and optimising institutional connections. For each panel, panellists provided 3 minute deep-dives into their respective topics. The panellists had diverse backgrounds bringing experience from governments and intergovernmental and non-governmental organisations. The moderator took interventions and Q&A from Parties and non-Party stakeholders based on the guiding questions. The dialogue concluded with a moderated session discussing ways forward, including reporting back by the rapporteurs of the panel discussions, interventions and Q&A.
4. This summary report provides key messages and a summary of presentations, interventions, Q&A and discussions.
5. Parties may wish to consider this information in their deliberations at COP 27.
6. All information on the ocean dialogue is available on the [ocean dialogue webpage](#).

IV. Proceedings

A. High level opening



Moderator:

Mr. Tosi Mpanu Mpanu, SBSTA Chair

Speakers:

Rt Hon Lord Zac Goldsmith, Minister for the Pacific and the International Environment, UK
 His Excellency Peter Thomson, UN Secretary-General's Special Envoy for the Ocean
 Mr. Vladimir Ryabinin, IOC-UNESCO Executive Secretary
 Ms. Patricia Espinosa, UNFCCC Executive Secretary
 Ms. Luciana Verástegui, Ms. Cathy Yitong Li, Mr. Mark Haver, Mr. Lorenzo Sablay,
 Ms. Melissa Jimenez, YOUNGO

1. We must protect our ocean AND value its potential as a place for sustainable climate solutions and action

“The damage we are doing to our ocean and ocean ecosystems is immense. We need cuts to emissions across all sectors. We need to repair our relationship with the natural world. COP 26 brought ocean action into the heart of this global climate conversation.” Lord Zac Goldsmith, Minister for Pacific and the Environment, UK

7. Speakers emphasised the importance of the outcomes from COP 26 that firmly integrated the inclusion of ocean-based climate action under the UNFCCC and underlined that this mandate now needs to be implemented holistically, including in national planning and action (including NDCs and NAPs) financial commitments, and in relevant national reports to the UNFCCC. Also emphasised was the importance of ocean-climate action being reflected in and under the outcomes and key messages of the global stocktake so as to inform future action.

8. Lord Goldsmith emphasised the need for deep cuts in emissions across all sectors. He referred to the existing “islands” of best practice as well as the commitments announced at

COP 26, all of which now need to be implemented, expanded and made the global norm. Examples cited included the leadership by SIDS (large ocean states) in ocean-related climate action, the announcement by Costa Rica, Colombia, Ecuador and Panama that they are working together to protect over half a million square kilometres of the eastern Pacific ocean, supporting wildlife and fishing communities alike; the commitment by 145 countries to halt and reverse forest loss, including mangrove loss, by the end of the decade; and the UK Blue Planet Fund.

9. Speakers also emphasised the ocean-based climate action that is already underway, including innovative solutions already available to maximise action this decade. The ocean dialogue is a space where this action can be investigated and discussed and where Parties and non-Party stakeholders can strengthen capacity and collaboration as well as consider the outcomes and next steps at the subsequent COP to move the needle forward on action and finance.

10. Peter Thomson highlighted [opportunities for ocean action that have been included in recently updated NDCs](#): scaling up offshore renewable energy, reducing emissions from shipping and ports and from offshore oil and gas, protecting and restoring blue carbon ecosystems, expanding and strengthening marine protected areas, protecting coastal communities and their infrastructures, protecting coastal and marine ecosystems and biodiversity, creating climate-ready fisheries, advancing ocean-climate justice and developing the sustainable blue economy.

11. Vladimir Ryabinin emphasised a number of opportunities for science-based action highlighted under the work of the [UN Decade of Ocean Science for Sustainable Development](#), including: i) a more strategic focus on critical ecosystems such as coral, through improved monitoring of impacts including acidification and warming and ensuring access to this knowledge by local communities; ii) strengthened monitoring and understanding of coastal blue carbon ecosystems which will improve GHG reporting, facilitate access to carbon markets, and assist responsible ministries to improve protection of these habitats; iii) improved ocean science support for NDCs and NAPs, including identification of knowledge gaps and acceleration of the development of early warning systems.

12. YOUNGO's Ocean Voice Working Group highlighted the key demands from their declaration, a [Global Blue New Deal](#), on the need to: i) include young leaders in all levels of decision-making processes, from international to local; ii) urge governments to strengthen actions on avoiding overconsumption and illegal fishing; and iii) include youth and local communities in natural ocean resource management and facilitate collaborations between all stakeholder groups.

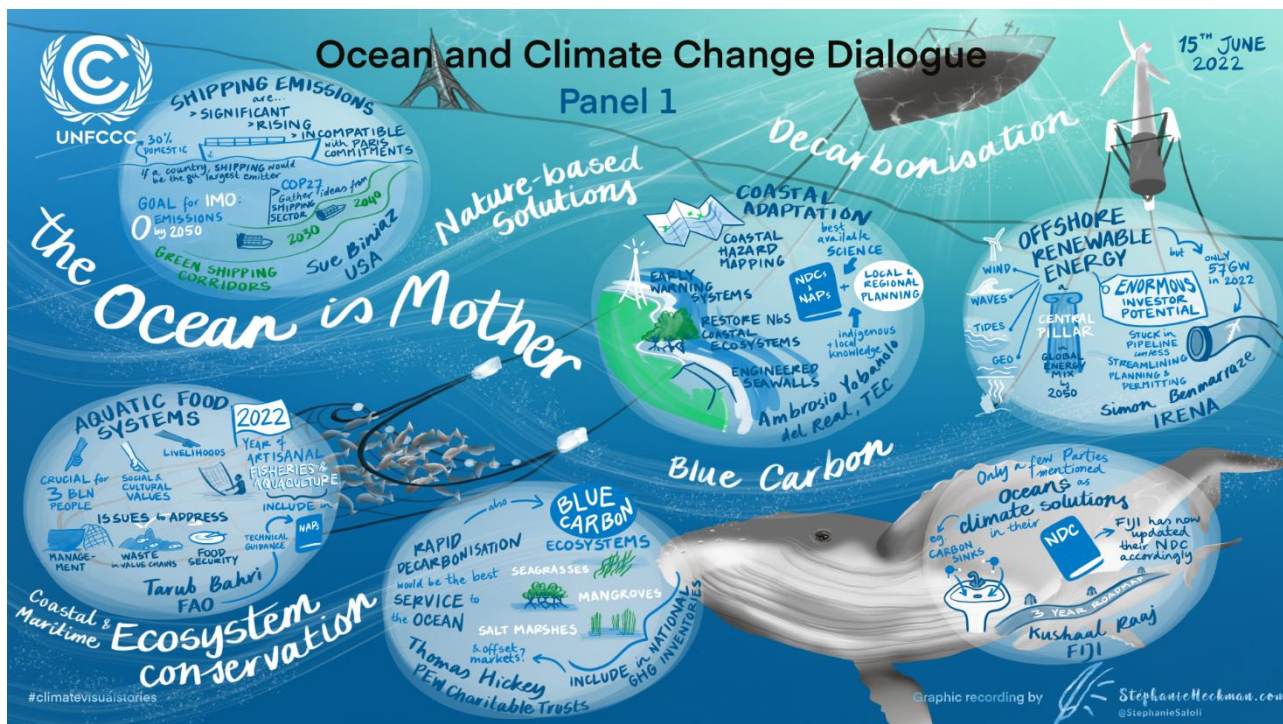
13. A clear message from the ocean dialogue was the connection between people, ocean and nature, as emphasised by YOUNGO. Many participants emphasised the need for strengthened meaningful youth engagement, not just for the work on the ocean under the UNFCCC and the ocean dialogue, but in national and global decision making on strengthened ocean and climate action.

14. A video by the Woods Hole Oceanographic Institute featured WHOI staff identifying how we must think together to build science-based strategies to reverse climate change, provide global solutions and advocate that the ocean is an opportunity for action. We are "[One Ocean. One Planet. One Future.](#)"

15. In light of the holistic approach needed, Peter Thomson emphasised the arc of activities and opportunities from COP 26 to the ocean dialogue to the 2022 [UN Ocean Conference](#) and other relevant ocean events in 2022 to help strengthen commitments in the lead up to COP 27, particularly for adaptation to benefit developing countries, especially LDCs and SIDS.

16. Patricia Espinosa urged participants to strengthen collaboration and produce actionable outcomes from COP 27, including a call to all to blue the Paris Agreement and include ocean-based action in NDCs, NAPs, long-term strategies, financial commitments and other relevant activities under the UNFCCC and the Paris Agreement.

B. Panel 1: Strengthening and integrating national ocean-climate action under the Paris Agreement



Moderator:

Mr. Kilaparti Ramakrishna, Senior Advisor to the President on Ocean and Climate Policy, Woods Hole Oceanographic Institution

Rapporteur:

Ms. Loreley Picourt, Executive Director, Ocean & Climate Platform

Guiding Questions:

1. What are the good practices by both Parties and Non-Party stakeholders for strengthening ocean-climate action at national level, including in NDCs? What are the challenges?
2. How could Parties' overcome challenges and strengthen ocean and climate action at country level to enable sustainable livelihoods, including through NDCs and NAPs?
3. What further information is needed in your country to implement ocean-climate action?
4. What can be accomplished next at national and international level to enable stronger ocean-climate action?

Panellists:

Mr. Kushaal Raaj, Fiji on NDC-based implementation strategies

Ms. Sue Biniiaz, USA on Near-term opportunities to decarbonize the shipping sector

Mr. Ambrosio Yobanolo del Real, TEC Chair on Integrating Technology and Nature-based Solutions

Ms. Tarub Bahri, FAO on Climate-resilient fisheries and aquaculture

Mr. Thomas Hickey, Pew Charitable Trusts the contribution of coastal and marine conservation to supporting the goals of the UNFCCC

Mr. Simon Benmarraze, IRENA on Global offshore renewable energy

17. Panel 1 of the ocean dialogue addressed the importance of strengthening and integrating national ocean and climate action (and vice versa) including as part of development planning and under the Paris Agreement.

2. Ocean-based measures offer significant mitigation and adaptation options

18. It is clear from the interventions that ocean-based measures offer significant mitigation and adaptation options. Four ocean-based climate solutions were highlighted by panellists.

1. Decarbonize the shipping sector

“There are many opportunities for countries to spur the transition to green shipping. Countries could participate, for example, in the launch of the Green Shipping Challenge for COP27. They could also support a “high ambition” outcome for the Revised IMO GHG Strategy, which would include a goal of zero emissions from the sector no later than 2050. Finally, they could consider mitigation of domestic shipping emissions as they implement or enhance their NDCs.”

Sue Biniaz, Deputy Special Envoy for Climate, USA

19. Emissions from shipping are significant, rising and currently incompatible with Paris Agreement goals. By 2050 emissions from the sector are projected to increase by up to 50% from 2018 levels under a business-as-usual scenario.

20. Opportunities exist within the scope of the Paris Agreement to urgently reduce shipping emissions. A recent [IMO study](#) identified that 30% of shipping emissions are domestic emissions. Countries enhancing their NDCs could consider scaling up mitigation action in this area.

21. Declarations at COP 26 related to shipping decarbonisation included the [Declaration on zero emissions shipping by 2050](#) and the [Clydebank declaration](#) in which countries pledged to facilitate green shipping corridors. Green shipping corridors can spur early and rapid adoption of fuels and technologies that, on a lifecycle basis, deliver low- and zero-emissions across the maritime sector, placing the sector on a pathway to full decarbonization.

22. A [framework of green shipping corridors](#) could be maritime routes that showcase low- and zero-emission lifecycle fuels and technologies with the ambition to achieve zero greenhouse gas emissions across all aspects of the corridor in support of sector-wide decarbonization no later than 2050. It is notable that the Port of Los Angeles and the Port of Shanghai recently announced a green shipping corridor, which was highlighted at the Our Ocean Conference in Palau.

23. Looking towards COP 27, the US and Norway have issued the Green Shipping Challenge to encourage not just Parties but ports, maritime carriers, cargo owners and others in the shipping value chain to come forward with concrete announcements to support actions that relate to zero emissions from the sector globally no later than 2050.

2. Create climate resilient fisheries and aquaculture

“FAO’s expectation from this dialogue is to raise the profile of aquatic food production as part of climate solutions to make sure that the communities who depend on this sector for their food, jobs and culture are visible and empowered.” Tarub Bahri, FAO

24. The aquatic food sector provides vital resources of food for 3 billion people annually and livelihoods for hundreds of million people, half of which are women. Fisheries and aquaculture rely on highly sensitive living resources and ecosystems such as mangroves and their dependent communities are at the forefront of climate change impacts. In 2019 the total export value of fish products was USD 162 billion with a critical importance for developing countries. Furthermore, a number of social and cultural values are attached to aquatic food that go back thousands of years.

25. The latest [FAO analysis](#) shows that Parties under the UNFCCC have recognised the importance of adaptation of fisheries and aquaculture to climate change with over 70% of the

new or updated NDCs containing these components. On the ground, adaptation is already happening at the community level with fishers, fish farmers and fish workers who are modifying their practices or trying to do so with the means that they have, such as to fish or farm new species, use different gears or technologies, or adapt to shifting seasons.

26. The aquatic food sector is efficient, has less impact on the environment and emits lower GHG emissions than land-based animal production systems. FAO's [Blue Transformation vision](#) for aquatic food systems is to: transform fisheries through better management, sustainably expand aquaculture, and improve efficiency, viability and inclusiveness of fish value chains in collaboration with the private sector.

27. The FAO recognises that effective adaptation to climate change is not only essential to reduce risks to people, oceans and nature, but can also have positive outcomes if properly financed. It also recognises the importance of supporting countries and tailoring tools, for example the [FAO adaptation toolbox](#), to local needs and specificities and upscaling positive results.

28. The FAO urges recognition of the opportunities in the fisheries and aquaculture sector and the need for greater visibility in national and international climate policies and action.

3. Protect and restore coastal and marine ecosystems

“By helping communities adapt to a changing climate, safeguarding biodiversity and supporting resilient livelihoods, the contribution of coastal wetlands to growing interest in other marine nature-based solutions extends far beyond their phenomenal capacity to store “blue carbon” alone.” Tom Hickey, Pew Charitable Trusts

29. Nature-based solutions provide cost-effective solutions for including in climate-policy and financing, from mitigation benefits to coastal and livelihoods protection.

30. Within the growing application of coastal and marine nature-based solutions in NDCs and other national strategies, three particular ecosystems are at the forefront – mangroves, seagrasses and saltmarshes. Over 37 NDCs include “blue carbon” ecosystems in their NDCs as part of their mitigation and/or adaptation strategies. However, only a limited number of countries currently include these ecosystems as part of their national GHG reporting according to the [IPCC guidelines](#) provided in the IPCC wetlands supplement.

31. Blue carbon ecosystems have been included within NDCs in different ways. For example, Australia, Singapore and UAE emphasise a quantitative assessment of mitigation potential. Many more countries, including Belize, Colombia, Costa Rica, Fiji, Kenya, Maldives and the Seychelles acknowledge broadly defined co-benefits but place as much emphasis on adaptation and resilience values such as shoreline defence, livelihoods dependent on fisheries and biodiversity, and water catchment and filtration.

32. When Parties think about the contributions of marine and coastal protections in the national policy setting, it should not be limited solely to the justification and the necessary high methodological bar for mitigation that these three ecosystems have achieved, including for mangroves, seagrasses and saltmarshes as well as for other ecosystems that require much more data and research before methodologies can even be developed such as kelps, macroalgae and sediments.

33. Marine and coastal ecosystems must be considered in regard to the incumbent encompassing breadth of benefits, not just blue carbon benefits. This is reflected in the way some Parties are framing these commitments. While the ocean is fundamental to the global carbon cycle, Parties must recognise that ecosystems are needed for broader resilience and protection which is a very different context to saying that we can satisfactorily measure and have confidence in the political accountability of an action to remove carbon from that cycle.

4. Scale up offshore renewable energy

“Governments and regulators can address the enormous challenges of the energy transition from fossil fuels using ocean resources, whilst pairing these opportunities with ocean resilience strategies.” Simon Benmarraze, IRENA

34. The [IRENA energy roadmaps for a 1.5°C pathway](#) show that offshore renewable energy should be a central pillar of the global energy system by 2050. However, despite rising annual installation rates, global offshore wind capacity was only 57 gigawatts in 2021. Furthermore, infrastructure is also an important requirement and grid investments must triple from current levels by 2030.

35. Parties can promote clear and long-horizon policy frameworks for offshore renewable energy. For mature technologies such as fixed-bottom offshore wind, the lack of transparent goals and fit-for-purpose regulation are the primary obstacles to investment and project development. For earlier-stage technologies such as floating solar PV and wave or tidal energy, long-term policy targets also increase trust in the possibility to commercialise these innovative technologies. Examples of innovations for offshore energy which need further research and development include larger turbines in deeper waters, green hydrogen generation, floating foundations, and artificial islands.

36. NDCs and other national policies can provide appropriate prominence for developments to reach long-term goals (e.g., investment amount, capacity additions, infrastructure build-out, etc.) and raise public awareness.

37. For example Viet Nam has included offshore renewable energy in its latest Power Development Plan; the Philippines Department of Energy (DOE) has awarded a large number of Offshore Wind Service Contracts (OWSC) to a variety of regional players with five years to complete their projects which total 2.8 GW by 2030 and 58 GW in volume potential by 2050; the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) has received licencing requests for more than 80 GW of offshore wind projects; and Colombia's Offshore Wind Development Roadmap calls for 1 GW of offshore wind by 2030, 3 GW by 2040, and 9 GW by 2050.

38. Parties can access updated information on offshore renewables development such as cost competitiveness, best practices in policy and regulation, resource potential and environmental impact assessments by participating in international initiatives such as the [IRENA Collaborative Framework on Offshore Renewables](#) and the [Global Offshore Wind Alliance \(GOWA\)](#). Whilst the [Global Ocean Energy Alliance \(GLOEA\)](#) is an initiative focussed on addressing the needs of SIDS and coastal developing countries, particularly LDCs, to access ocean energy technology, finance and expertise.

39. Opportunities for Parties include supporting collaboration and exchange of experiences in ocean governance, environmental impacts and technical standards. Given that one of the main challenges that these technologies face today is the difficulty in securing funding due to high perceived risks, Parties could identify and promote innovative financing and de-risking mechanisms, including, but not limited to, capital investment support (grants, equity, loans, etc.) and revenue support mechanisms (technology-specific auctions, fiscal measures, quotas, etc.).

40. Importantly, Parties can pair offshore renewable technologies with adaptation strategies (for example mangrove protection with wave energy) and create synergies by protecting the lives and rights of coastal and marine communities at risk.

3. The ocean offers a space for integrated solutions that can be reflected in national climate policies and strategies

41. Discussions during panel 1, supported by the video on “[Ocean of climate solutions - Blue carbon](#)” emphasised the importance of integrated approaches to ocean-based climate measures, governance and stewardship that also uphold human rights.

“Let us be clear that what we are here to do is to accelerate and enable ocean-climate action.”
Kushaal Raaj, Fiji

42. Countries have the opportunity to use their NDCs, NAPs and other national policies to further enhance ocean action, whilst recognizing that the ocean is the earth’s largest carbon sink and without protection and urgent mitigation action there is very real risk its services could soon fail to buffer us from the full brunt of climate change.

43. Parties' can overcome challenges and strengthen ocean and climate action at country level to enable sustainable livelihoods, including in NDCs and NAPs through:

(a) **Increasing climate ambition inclusive of the ocean**, including in NDCs and NAPs (including but not exclusive to the opportunities highlighted above in paras. 18–40);

(b) **Promoting the understanding that climate action equals ocean action** and vice versa, especially in low-lying coastal areas and SIDS;

(c) **Investing in ocean science and monitoring** including through UN Decade of Ocean Science activities;

(d) **Developing and/or strengthening integrated national policies** for ocean and climate action;

(e) **Strengthening leadership and partnerships** at the national, regional and local level;

(f) **Taking into account ocean-climate action in maritime zone planning and marine spatial planning.**

44. Several countries have increased the scope of their updated NDC to better address ocean-related adaptation and mitigation objectives.

45. For example, the Fiji National Ocean Policy commits the country to designate 30% of its EEZ as Marine Protected Areas and work towards managing 100% of its EEZ by 2030. The EU NDC aims to achieve GHG neutrality by 2050 and the EU is pursuing action to support offshore wind development, decarbonize trading routes including through a cap and trade system and provide legal instruments to restore marine ecosystems. Belize and the Nature Conservancy are working together to reduce Belize’s debt burden to assist the country in meeting marine conservation goals and protect 30% of its ocean space.

46. Norway highlighted that the clear message from the High Level Panel for a Sustainable Ocean Economy is that sustainable management for all ocean areas under national jurisdiction, guided by sustainable ocean plans, as well as other incentives from governments would enhance potential finance and investments in these areas. This is important as research shows that ocean-based climate solutions can deliver as much as 1/5 of the emission reductions needed by 2050.

4. Marine technology and marine and coastal nature-based solutions should be integrated to ensure that action is more robust, comprehensive and cost-effective than when using either solution alone

“The work of the constituted bodies can be organized to strengthen and scale up innovative, integrated approaches in the coastal and ocean contexts.” Ambrosio Yobanolo del Real, TEC

47. Recent work by the Technology Executive Committee (TEC), Nairobi work programme Expert Group on Oceans, IUCN, and Friends of EbA (FEBA) shows that integrated technology- and nature-based solutions offer the potential to be more robust, comprehensive, and cost-effective than either solution alone, as detailed in the policy brief on [Innovative approaches for strengthening coastal and ocean adaptation - Integrating technology and nature-based solutions](#).

48. Solutions include early warning systems for extreme events, hybrid approaches such as restoration of coastal vegetation alongside engineered seawalls to reduce the impacts of storm surges and sea level rise, investments in nature-based infrastructure, new technologies to reduce harmful fishing practices, ecosystem-based marine spatial planning with coherent networks of marine protected areas, and coastal hazard mapping.

49. However, despite the pressing adaptation needs of coastal and island communities, knowledge, capacity, and financing gaps and challenges prevent the widespread implementation and mainstreaming of integrated approaches.

50. Key messages to Parties are the need to:

(a) **Undertake co-production of localized adaptation solutions** that combine scientific, local and indigenous knowledge, engage diverse stakeholders, and distribute benefits equitably across and within communities;

(b) **Collaborate on transdisciplinary research and encourage mutual learning** through long term monitoring and evaluation programs. This will facilitate the development of robust evidence, data, and standards that document the role of natural assets, coastal and marine nature-based solutions (NbS), and green-gray infrastructure to support coastal and marine climate adaptation outcomes;

(c) **Address the barriers that restrict access to financing**, including perceptions of and risk associated with innovative and nature-based approaches, in order to scale up integrated adaptation solutions;

(d) **Foster enabling policy and regulatory frameworks** to support the uptake and implementation of integrated adaptation solutions in national climate strategies, local planning and regulations, and international standards and codes for civil engineering and construction;

(e) **Build cross-sectoral partnerships**, including with the private sector, to exchange knowledge and ideas, develop innovative technologies, and bolster the business case for integrated adaptation solutions.

51. These innovative approaches can be scaled up at both national and international levels. Within the UNFCCC, the TEC and other constituted bodies can be guided to organise their work in a way that addresses priorities and guidance provided by the Parties through the governing and subsidiary bodies.

5. We must use, improve and integrate the latest available ocean science and other knowledge systems

“Maximising solutions for ocean action involve using the strong knowledge base that exists and simultaneously strengthening scientific and technological understanding and progress, including for governance of climate smart marine spatial planning, national climate action and GHG inventories.” Vladimir Ryabinin, IOC-UNESCO

52. Scientific information and data are essential for understanding climate change, informing mitigation and adaptation activities, and measuring progress towards Paris Agreement goals.

53. Interventions during the dialogue highlighted the importance of investing in science and ocean monitoring, alongside unpacking the currently available scientific knowledge to overcome knowledge gaps and build capacity so as to better understand and manage national and local impacts of climate change.

54. The [UN Decade of Ocean Science for Sustainable Development](#) is strengthening transformative ocean science solutions for sustainable development, connecting people and our ocean, with some of the key knowledge gaps being addressed highlighted by Vladimir Ryabinin (see paragraph 11 above).

55. Participants also highlighted a range of information needs which included:

(a) PSIDS need information about the impacts of climate change on tuna which current studies show is redistributing away from the tropical west and central Pacific into the high seas threatening the economic and food security of these countries. PSIDS need information about options and solutions in order to continue maintaining the last sustainable fishery in the world;

(b) Science, data and capacity building was requested by several Parties to support the inclusion of using IPCC methodologies to include blue carbon systems in their National GHG inventories with further data and research needed for many systems;

(c) Methodologies and indicators being developed and implemented under other UN processes such as RAMSAR and CBD (the post-2020 Global Biodiversity Framework) need to be understood and integrated into UNFCCC activities such as for use in NDCs;

(d) In order to strengthen nature-based approaches, UNFCCC Parties need to provide greater recognition of EbA, with appropriate guidance to be given to the financial mechanisms to encourage bilateral support where possible including for NDCs and NAPs. Further research and knowledge is also needed for monitoring, verification and reporting of EbA for both adaptation and mitigation co-benefits;

(e) Linking with the work under ACE for translating proposed solutions into implementation and encouraging effective engagement.

56. Local communities & indigenous peoples’ concerns, needs and roles in blueing the NDCs, as highlighted in the [video](#) by One Ocean Hub and in the wider dialogue, is of extreme importance in co-developing ocean-climate solutions that integrate natural and social sciences with other knowledge systems. This includes the work across the UN in building capacity through the International Year of Artisanal Fisheries and Aquaculture 2022 (IYAFA) which is giving a voice to often forgotten and vulnerable communities who must have more inclusive, equitable roles in decision making and policy making.

C. Panel 2: Enabling ocean climate solutions and optimizing institutional connections



Moderator:

Ms. Angélique Pouponneau, Deputy Fellowship Director and Policy Adviser, AOSIS

Rapporteur:

Ms. Jill Hamilton, Director, Blue Climate Strategy, Conservation International

Guiding Questions:

1. What are current and innovative options for ocean climate solutions and how can they be improved, including funding and financing, technology, capacity building and science?
2. How can UN and international processes support Parties' ocean climate action and invoke synergies across processes?
3. What can be accomplished next at national and international level to enable stronger ocean-climate action?

Panellists:

Mr. Carlos Fuller, Belize on Blue financing and institutionalising ocean-climate action

Mr. Tshewang Dorji, GEF on Strengthening funding opportunities for ocean-climate action

Ms. Lisa Schindler Murray, Nairobi work programme expert group on oceans on Entry points and financial instruments for enhancing access to the Green Climate Fund for implementing coastal and marine nature-based solutions

Mr. Mohammed Nasr, co-chair, Standing Committee on Finance on Strengthening ocean-climate finance under the UNFCCC (not available to attend)

Ms. Alice Hiciburundi, UN-Oceans and experts from UN agencies (Ole Vestergaard, UNEP; Joe Appiott, CBD; Fredrik Haag, IMO) on linking the Paris Agreement and other UN agendas to synergise ocean-climate action, including UNEA5.2 resolution on nature-based solutions and CBD post-2020 Global Biodiversity Framework

Mr. Markus Müller, Deutsche Bank on Innovative opportunities for private sector finance

57. Panel 2 of the ocean dialogue discussed the elements needed to enable coastal and marine climate solutions, and what is needed to optimize institutional connections across international policy processes and support, particularly in relation to finance.

6. A whole of society approach is needed for ocean - climate action, including to address governance aspects

“Belize has a long tradition of ocean husbandry and conservation. We are acting on climate change while other countries make optimistic promises.”

Carlos Fuller, Belize

58. The dialogue highlighted the importance of an integrated approach to ocean-climate action on the understanding that the environmental issues are interconnected, driven by key sectors, and must link to action under other conventions and in international waters.

59. Ocean-climate action, finance and governance requires a whole of society approach and participants called for the development of cross sectoral partnerships at all governance levels with the need to give a voice to communities most affected by climate change impacts, such as small-scale fishers, including them in every step of decision making. Action must also protect the livelihoods, rights and local governance systems of indigenous peoples and local communities.

60. Multiple use of coastal waters for energy production, shipping, biodiversity enhancement and food production need detailed management and marine spatial planning but the co-benefits of strengthening action across disciplines and usages would be large. Evidence-based analysis would support governments and individuals to identify clear paths towards a sustainable blue economy.

61. Examples of this whole of society approach were provided during the dialogue. For example, Belize is committed to cut emissions to keep to the 1.5 limit and has placed a permanent moratorium on offshore oil exploration and drilling in all Belize and coastal waters. It is protecting coral reef health with governance of fish stock and promotion of just transition of those dependent on the fishing industry. It has committed to implementing the 30 by 30 target domestically in line with CBD objectives and already protected 20% of the ocean space. In partnership with the Nature Conservancy, an innovative and creative [blue bond initiative](#) supports debt management, fiscal prudence, and robust marine management and conservation. The blue bond has restructured Belize's USD 500 million debt and will provide long term financing for marine conservation for the next 20 years. A participatory marine spatial planning process will be launched to ensure that the project is owned by the people of Belize and delivers benefits to local and indigenous communities along Belize's entire coastline.

62. The video [Race for the Ocean](#) further demonstrated the importance of a whole of society approach and the work of the Ocean Race in catalysing change by accelerating the protection and restoration of our seas. The Ocean Race are providing a platform and convening experts from across the world, including policy makers, businesses, NGOs, scientists, sailors and ocean advocates, to explore ocean and nature-based rights. They are working towards the inherent rights of the ocean being recognised by UNGA and at all levels from policy to action.

7. Funding for ocean-climate action needs to increase and access to funding must be supported

“We need to close the funding gap for adaptation. Official recognition of the outcomes of this dialogue is one clear next step in the UNFCCC process that can inform future funding, funding priorities and implementation plans for ocean climate action at the national and local level.”

Lisa Schindler Murray, NWP Ocean Expert Group

“GEF already supports ocean-climate action and further investment is being made available to support sustainable blue economies using a whole of society approach.” Tschewang Dorji, GEF

63. Unlocking finance and addressing the immense climate financing gap is critical to support developing countries in addressing ocean-climate action and build climate resilience particularly for small island states, least developed countries and communities and groups most affected by climate change impacts.

64. Parties highlighted that SIDS are often the source of ocean-climate solutions that can serve as models for the rest of the world. Efforts to realise and develop these solutions must be accelerated and scaled up to achieve this, requiring work to close science and knowledge gaps, to secure finance and technology, and to build capacity to catalyze such actions and efforts.

65. Panellists and participants highlighted a number of options. For example, [the GEF](#) is enhancing its support for ocean-based climate actions. This includes international water investment with objectives to accelerate joint actions to support the sustainable blue economy, the blue green island programme and the clean and healthy ocean programme. The GEF is also planning to support countries in identifying sustainable public and private investments to accelerate joint actions in support of climate change resilience and blue economies using a whole of society approach, such as through the Blue Pacific Finance Hub.

66. The tools and expertise of the Nairobi Work Programme’s thematic expert group on the ocean, including the recent NAP Technical Supplement providing [guidance on accessing finance for the implementation of coastal and marine nature-based solutions](#), can be used to help meet Parties’ goals for adaptation and resilience. The supplement aims to enhance access to funding opportunities by providing considerations for governments to consider when developing high-quality NbS proposals to the GCF and outlining practical tips for proposal development.

67. Private finance and blended finance can provide new opportunities to support meeting ocean-climate goals, including innovative solutions, such as blue bonds. While some projects may be too small under traditional finance models, or have too high of a risk-return model, these problems can be overcome through partnerships and other innovative strategies. For example, Canada highlighted the [Ocean Risk and Resilience Action Alliance \(ORRAA\)](#), which by 2030 aims to create a new marketplace by driving USD500 million of investment into innovative and scalable finance products that increase coastal resilience and reduce ocean risks for the most vulnerable communities. Australia recalled its commitment to the [Blue Carbon Accelerator Fund \(BCAF\)](#) which supports the development of blue carbon restoration and conservation projects in developing countries and helps pave the way for private sector finance. The [Blue Natural Capital Financing Facility](#) is helping to build the business case for investing in blue nature-based solutions by developing the pipeline of bankable projects, and connecting people on the ground with investors.

8. Strengthened finance and other support, including capacity building, must embrace complexity to provide innovative and multidisciplinary solutions

“Nature-compliant finance, including ocean-compliant finance, must become a real alternative to current finance and to current activities.” Markus Müller, Deutsche Bank

68. The current financial market has a fixed view of ocean finance and does not see it as an alternative to current activities. This needs to change. Finance for ocean action needs to be made transparent and show the contribution of the ocean to our economies. Nature is part of that capital. It is vital for ecosystem services.

69. Prevailing policies and regulations, in particular those that strengthen the sustainable management of natural capital as well as those that facilitate and incentivize social enterprise and new forms of capital, are insufficient to attract the necessary quantity and quality of investment to ocean-climate action.

70. Information and knowledge about the ocean and its economic, social, and environmental value is missing or inadequate. In order for suitable and adequate financing to flow into the ocean economy, its whole contribution to the ocean economy must be understood and assessed more thoroughly than it is today. This will also allow for an assessment and disclosure of risks which can help define new financing methods and deliver capital for meaningful change.

71. Furthermore, subsidies are given to ocean economic activities that have negative externalities and are currently mostly directed to large-scale industrial activities, making small-scale businesses less economically feasible.

72. A framework for guiding sustainable blue economy investments and a taxonomy of sustainable blue economy investments are not yet universally defined.

73. Innovative solutions must look to collaboration, working together with governments, the private sector, philanthropic organizations, academia and many others as well as seeking to understand that action must not just consider economics alone but must also include local communities. For example, Deutsche Bank have deepened their research to understand nature as capital. They have established an ocean resilience philanthropy fund to finance nature-based solutions. The first project is in the Maldives, cooperating with the Maldives Coral Institute to develop a future climate coral bank.

9. A framework for collaborative efforts across UN Processes would increase institutional support for ocean-climate action

“A call could be made for collaborative efforts across UN-Oceans entities to enhance exchange of information, identify and build synergies and common objectives.”
Alice Hicuburundi, UN-Oceans

74. The overlap between the different agendas of UN-Oceans members and the objectives of the Paris Agreement provide a crucial opportunity to facilitate cross-sectoral solutions in the ocean space, to leverage collaborative and synergised action, and to scale-up action to do more with less through cooperative efforts. It also offers the opportunity for States to benefit, through the involvement of UN agencies, from the experience in other States, learning from similar endeavours to tackle the climate crisis through ocean-related action.

75. UN-Oceans members are already supporting a range of efforts. The IMO, as the UN specialized agency for shipping, has extensively considered GHG emissions from international shipping since the late 1990s, promoting a global approach to further enhance ships’ energy efficiency, developing measures to reduce GHG emissions from ships, and providing technical cooperation and capacity building activities. Under the London Protocol, IMO considers subsea CCS and ocean interventions for climate change mitigation. Activities are supported through scientific advice provided by [GESAMP](#) which provides direct, independent and tailor-made advice to 10 UN bodies.

76. Working across policy processes can help avoid duplication, fill capacity gaps, and capitalize on synergies to maximize time and resources to achieve shared goals, as outlined by a recent [policy paper by IUCN and Conservation International](#) on synergistic efforts across international processes. At the national level, improved coordination between focal points would also be beneficial, as well as a formal exchange of updates and ideas across international policy processes.

77. For example, UNEP's new medium-term strategy is taking a holistic approach to address the triple planetary crisis of climate change, nature loss and pollution. Importantly for synergising ocean-climate action, UNEA-5 made a resolution on adopting a multilaterally agreed definition of nature-based solutions, recognising the important role they play in the global response to climate change and its social, economic and environmental effects. The UN decade on Ecosystem Restoration calls for recreating, reimaging, protecting and restoring nature through a transdisciplinary approach. UNEP FI has published a set of [sustainable blue economy financing principles](#) to guide investments in natural infrastructure and nature-based solutions.

78. Parties are currently developing the CBD post 2020 global biodiversity framework, which will contain a new set of global goals and targets for biodiversity. The draft goals and targets under the post 2020 Framework instil cross-cutting linkages across the sustainable development spectrum, focusing not only on conservation and mitigating threats to biodiversity, but also the central role of biodiversity to health, prosperity, social wellbeing, and climate change mitigation and adaptation. This framework offers an opportunity to synergise commitments across CBD, UNFCCC and other international agendas.

10. Future ocean and climate change dialogues should focus on distinct topics to deep-dive into specific solutions that strategically support and strengthen ocean-climate action at national and international level and under the UNFCCC process

"The best of the ideas developed at this dialogue will contribute to the innovative solutions that we are seeking." H.E. Peter Thomson, UN SG's Special Envoy for the Ocean

79. Several Parties and other participants asked to move forward more strategically for future dialogues and to focus future dialogues on a maximum of two specific topics over two sessions, allowing for more in-depth discussions and identification of gaps and needs. Outcomes could then also be better incorporated into existing UNFCCC work programmes, constituted bodies and other international agendas as well as into national planning.

80. The Ocean and Climate Dialogue Series could be informed through submissions as occurred for this dialogue or by a roadmap identified by Parties, possibly a three-year roadmap, that identifies set topics for each annual dialogue to progressively cover a range of ocean climate solutions. Several participants highlighted the wealth of information presented at the ocean dialogue and that future dialogues may benefit from a world café style setting.

81. Suggestions for future topics included: the role of blue carbon ecosystems in climate mitigation and adaptation and understanding and enhancing the IPCC Wetlands supplement; strengthening finance and financial flows for ocean-climate action, including an annual determination of finance needs; opportunities for strengthening ocean-based action and support under UNFCCC workstreams and constituted bodies; and capitalizing on synergies across international policy processes relating to ocean-climate action.

V. Ways Forward



Moderator:

Mr. Julio Cordano, Ministry of Foreign Affairs, Chile

Rapporteurs:

Ms. Loreley Picourt, Executive Director, Ocean & Climate Platform

Ms. Jill Hamilton, Director, Blue Climate Strategy, Conservation International

82. The closing session of the dialogue provided a space to summarise and discuss key messages and ways forward, which have been outlined in this report and in the graphic recordings.

83. The moderator highlighted that the ocean dialogue 2022 is just the starting point of the new ocean agenda under the UNFCCC.

84. Participants highlighted that the ocean dialogue is a home for the cross-cutting considerations and discussions needed to scale up legitimate and impactful ocean-climate action under the UNFCCC process while also being the mechanism for creating complementarity between the mandate of the UNFCCC and the objectives and remit of other UN bodies. The dialogue can help fill the gaps in science, in finance, in technology, in capacity building and most importantly in our actions to address threats to life sustaining ocean-based ecosystem services. These gaps exist in every category of ocean-climate action.

85. By using each dialogue to address a specific set of solutions and challenges. A collaborative effort can be engaged that sees this work effectively integrated fully across the UNFCCC. It can inform NDCs and national development plans, and most critically be implemented at national and local levels.

86. Parties must embrace and implement ocean-climate science and solutions and put them at the heart of national strategies, including NDCs and NAPs, in order to address climate change and to protect people and nature.

87. Synergies and framing action across international processes were highlighted as vital.

88. Speakers underscored the timely opportunity for the dialogue to contribute to the UN Ocean Conference in Lisbon² and COP 27.

89. It was stressed by numerous dialogue participants that there should be a reporting back of this informal summary report during the COP 27 plenary session.

90. Participants highlighted the need for a mandate for the inclusion of ocean-based action in national action, such as NDCs, to help to accelerate national level action and cross-country policy and technology transfer.

*“I invite you all to strengthen ocean-climate action and its finance, and include these commitments in the NDCs **Let us Blue the Paris Agreement.**”*

Patricia Espinosa, UNFCCC Executive Secretary

²

The outcomes of the dialogue were presented at a range of events at UNOC including at the interactive dialogue on [Minimizing and addressing ocean acidification, deoxygenation and ocean warming](#) and the joint side event by the UNFCCC secretariat, Ocean and Climate Change Platform and Government of France [From Science to Action: Blueing the Paris Agreement](#).