United Nations

Framework Convention on Climate Change

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Oceans and Law of the Sea

Contribution from the United Nations Framework Convention on Climate Change

I. Introduction

1. The United Nations Framework Convention on Climate Change (UNFCCC) secretariat ("the secretariat") seeks to contribute to the United Nations General Assembly resolution entitled "Oceans and the law of the sea" (78/69), of 05 December 2023 for the report of the Secretary-General entitled "Oceans and the law of the sea". More specifically, in accordance with paragraph 361 of the said resolution, this report will contribute to the theme *"The ocean as a source of sustainable food"* of the twenty-fourth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea.

2. Parties have recognized the importance of protecting the ocean and its ecosystems in the Convention and the Paris Agreement:

3. In the Convention, Parties agreed to protect the climate system (Article 2), defined as the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions (Article 1.3, Article 4 (d)).

4. In the Paris Agreement, Parties noted in its preamble the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth.

II. Adoption of and update on the mandate on ocean-based climate action

5. At COP 25, the Chile Madrid Time for Action 2019, governments recognized the need to strengthen the understanding of, and action on, ocean and climate change under the UNFCCC. COP 25 mandated the first Ocean and climate change dialogue, drawing upon the knowledge and scientific findings from the IPCC Special Report on the Ocean and Cryosphere in a changing climate.

6. At COP 26, in the Glasgow Climate Pact 2021 (Decision 1/CP.26 Paras. 60-61), building on the outcomes of the first ocean and climate change dialogue in 2020, Parties invited the relevant work programmes and constituted bodies under the UNFCCC to consider how to integrate and strengthen ocean-based action in their existing mandates and workplans and to report on these activities within the existing reporting processes. Parties also invited the Subsidiary Body for Scientific and Technological Advice (SBSTA) Chair to hold an annual ocean and climate change dialogue to strengthen ocean-based action.

7. At COP 27/CMA 4, in 2022, the COP Sharm el-Sheikh Implementation Plan (Decision 1/CP.27 para. 50) and CMA Sharm el-Sheikh Implementation Plan (Decision

1/CMA.4 para. 79) continued to strengthen ocean-based action under the process and encouraged Parties to consider, as appropriate, ocean-based action in their national climate goals and in the implementation of these goals, including but not limited to nationally determined contributions, long-term strategies and adaptation communications.

8. Decision 1/CP.27, para 49 welcomed the outcomes of and key messages from the ocean and climate change dialogue in 2022 and decided that future dialogues will, from 2023, be facilitated by two co-facilitators, selected by Parties biennially, who will be responsible for deciding the topics for and conducting the dialogue, in consultation with Parties and observers, and preparing an informal summary report to be presented in conjunction with the subsequent session of the Conference of the Parties. Mr. Julio Cordano (Chile), and Mr. Niall O'Dea (Canada) are the Ocean and Climate Change Dialogue co-facilitators for the biennium 2023-24.

9. At COP28, in 2023, the outcome of the first global stocktake (Decision 1/CMA.5, para. 180), welcomed the outcomes of and the informal summary report on the 2023 ocean dialogue and encouraged further strengthening of ocean-based action, as appropriate.

III. Relevant outcomes from the Ocean and climate change dialogue 2023

10. The 2023 ocean dialogue was held over two days on 13–14 June 2023 in conjunction with the fifty-eighth session of the subsidiary bodies (5–15 June 2023), Bonn, Germany. The ocean dialogue had 250 participants. The two topics addressed were: first, coastal ecosystem restoration, including blue carbon and second, fisheries and food security. The co-facilitators prepared an information note in advance that provided the choice of two topics, guiding questions and proposed approach based on consultations with Parties and observers, which took place in March 2023.

11. The 2023 dialogue was aimed at strengthening ocean-based climate action at national level and under the UNFCCC process. The ocean dialogue offered a vital forum for a) enhancing collaboration, understanding and building ocean-based climate action; b), illustrating needs, opportunities and exchange of more than 250 case studies by Parties and observers, including on fisheries and food security, thereby underscoring the ocean as a vital source of sustainable food; and, c) highlighting key messages for COP28 and ways forward. The co-facilitators of the dialogue presented the key messages and outcomes at the COP28 opening plenary session.

12. The outcomes of the dialogue highlight the importance of sustainable, aquatic foods to the global carbon cycle as well as the significant positive potential the ocean offers to achieve just transition to renewable sources of energy and low carbon food security. Participants in break out group discussions discussed the guiding questions provided by the co-facilitators on the dialogue topics and exchanged several good practices to highlight their key messages. In the panel discussions, several speakers presented on solutions emerging out of aquatic food systems and sustainable fisheries and aquaculture for enhancing ocean-climate action and national ambition.

13. The relevant messages that emerged from the dialogue on the topic of fisheries and food security are detailed below. Annex I include the visual summary of the breakout group discussions.

14. **Integration of aquatic food climate solutions within national processes, as well as at the multilateral level, including in the UNFCCC process, is needed. All Parties must consider linking their national climate policies with their blue food production. To achieve this nexus, Parties should adopt a systems/ecosystems-based approach that considers the whole life cycle value chain.**

15. Participants called upon Parties to commit to incorporating the aquatic food sector in their nationally determined contributions (NDCs), national adaptation plans (NAPs), and biennial transparency reports (BTRs). Notable examples of ecosystem-based approaches included the Flagship Food Systems Programme in the Pacific and the Western and Central Pacific Fisheries Commission's resolution on climate change impacts. The 2020 UK Fisheries

Act exemplified legislation supporting adaptive fisheries management in response to climate change.

16. Participants highlighted a shift towards algae-based foods and called for recognition of diverse blue food systems for sustainable and equitable aquatic food production, citing examples from Latin America and South East Asia. Participants stressed the importance of protecting coastal ecosystems like mangroves and coral reefs, recognizing their role as nurseries.

17. **It is vital that fish are managed using an ecosystem approach. It is also necessary to better recognize the role of aquatic food in the carbon cycle and for food security, and to mainstream this into other areas of government, to ensure that food security, ocean sustainability, and conservation efforts are realized.**

18. Mainstreaming food security into other integrated ecosystem management approaches and adopting integrated approaches across national government ministries, was emphasised. Examples like Italy's Blue Coast Agreements 2030 and Fiji Ministry of Waterways and Environment showcased collaborative efforts aligning blue economy goals with sustainable coastal development. Initiatives like Australia's Coral Reef Resilience Initiative showcased ecosystem-based approaches to coral restoration.

19. Advocacy for climate-smart planning for oceans, incorporating climate-resilient marine spatial planning, local knowledge, and mitigation and adaptation activities, was emphasized for food security and sustainable ocean practices.

20. **Decarbonizing the entire value chain of aquatic food production, including fishing vessels and aquaculture practices, is integral to the just transition to renewable sources of energy and low carbon practices.**

21. Discussions underscored the necessity of decarbonizing the entire fisheries value chain and advocating for ambitious targets to reduce emissions from fishing fleets, particularly for smaller fleets where implementation is more feasible. Several case studies highlighted various approaches to decarbonizing fishing vessels, including through alternative fuels, cold storage, electrification, and hybrid technology. Countries like South Korea, the United Kingdom, and Canada have introduced initiatives and funding programs to support the transition to low carbon vessels by 2050 and supporting small-scale coastal fishing fleets in replacing their engines with more environmentally friendly alternatives.

22. Participants underscored the need to decarbonize aquaculture practices, including "greening" the fish feeds and systems. For example, initiatives like the European Commission's action plan and the Alternative Feeds Initiative in the United States aim to achieve sustainable aquaculture by to decarbonizing fisheries and aquaculture by 2050, and developing alternative fish feeds.

23. Participants urged efforts to reduce overfishing by industrial fleets and eliminate harmful fisheries subsidies, including fuel subsidies. The entry into force of the World Trade Organization's Fisheries Subsidy agreement was highlighted as a key step toward achieving these goals.

24. Access to cutting-edge technology, technology transfer, and funding for new technologies, especially for mesopelagic fisheries, deep-sea fishing, and aquaculture systems, to reduce fossil fuel intensity and CO_2 emissions, were emphasized. Examples included Japan's strategy for zero CO2 emissions from fossil fuels in fisheries by 2050 through innovation and community engagement.

25. **Ocean-based systematic observation, research and data management must be strengthened to improve the understanding of carbon cycling and support science-based decision making, with a focus on first filling knowledge gaps that are preventing the ocean from being more widely and effectively included in the NDCs. Standardized data and knowledge systems are essential to achieve this and must be communicated, coordinated, and openly shared among national and international agencies.**

26. Discussions highlighted the importance of strengthening ocean-focused research and data management, bridging knowledge gaps, and promoting standardized data sharing to

effectively integrate the ocean into climate commitments. Data-sharing initiatives like the Humboldt Current fisheries system in Peru, Ecuador and Chile were highlighted.

27. Access to data and information for all stakeholders, community hubs for advancing science, and the inclusion of youth in forums for marine ecosystem services were identified as crucial. Participants also called for Parties to consider how to address ocean acidification under the UNFCCC process, including to understand the impacts on food security and coastal ecosystems.

28. Science and data were deemed crucial for equitable and sustainable food production, with an emphasis on understanding fossil fuel consumption and adaptive fishing practices. Several examples showcased the role of science in decision-making, including Singapore's 30 by 30 aquaculture Plan and the Marshall Islands use of solar-powered refrigerators.

29. **Fostering partnerships, strengthening regulatory frameworks, and adopting a whole of society approach with Indigenous Peoples, local communities, vulnerable groups including youth and women, and the private sector is essential to give climate policies social buy-in and stability in their implementation. It is also critical for the co-design and co-implementation of projects, addressing policy barriers, facilitating investments, and ensuring strong leadership, effective conservation efforts and to communicate co-benefits.**

30. The importance of partnerships in financing processes, capacity-building programs, and educational initiatives was underlined. Examples included the Blue Food Partnership and the USA's collaboration with the Ocean Risk and Resilience Action Alliance. Innovative approaches such as life insurance for fishers were suggested, along with training and education.

31. Coordination across jurisdictions, capacity-building, knowledge exchange, and global collaboration were emphasized to avoid undermining least developed countries in the global market. A replicable model is a project underway in Namibia by Friends of Ocean Action to repurpose seafood loss and waste.

32. Collaboration with Indigenous Peoples to advance technology and transition away from fossil fuels in fisheries was stressed, along with considerations for a just transition, food security, and poverty eradication. In this regard, the example of Senegalese women who have replaced traditional ovens with modern technologies was highlighted. Multi-trophic aquaculture's potential for food security, exemplified by the 3D Ocean Farming model in the Thimble Island Ocean Farm in the United States of America was noted.

33. Development of regulatory frameworks and social-legal safeguards were deemed essential for facilitating access to investment in sustainable fisheries. Participants highlighted the need for a formal compensation mechanism, especially under the 30 by 30 initiative. Compensation at both the national and international levels, for fishers who have lost fisheries due to climate change (e.g., shifting fish stocks) or for protecting fish stocks through good behaviour incentives, was emphasized.

34. Prioritizing the implementation of port State measures, formalization of small-scale fisheries sector, and enhancing monitoring and enforcement against IUU fishing, were stressed. Initiatives like the Singapore Aquaculture Plan were cited. A precautionary approach for ecosystem preservation, including addressing risks like bottom trawling, deep-sea bed mining, and mangrove deforestation, was emphasized.

35. **Indigenous Peoples and coastal communities must be engaged from project inception to build trust, integrate local and traditional knowledge, and to respect their rights and take into account the principle of free and prior informed consent**.

36. Participants highlighted the need for inclusive consultations during policy development, emphasizing the importance of monitoring policy effectiveness. Incorporating the voices and knowledge of vulnerable community members and considering gender roles in management processes were emphasized.

37. Management and stewardship were identified as crucial for minimizing the carbon footprint of fish fleets, with a specific emphasis on addressing the environmental impact of shrimping, which contributes significantly to mangrove deforestation. Examples from New

Zealand and French Polynesia demonstrated successful models of allocating fisheries to indigenous peoples and community-based natural resource conservation.

38. Participants stressed the importance of empowering Indigenous Peoples and local communities through capacity building to engage in decision-making processes related to fisheries and marine management. The example of sasi in the Maluku Islands, Indonesia, illustrated customary rules protecting resources in both terrestrial and marine environments.

39. **Increasing, scaling up, and ensuring stable and accessible finance flows is crucial to aid the implementation of sustainable fishing practices and management and restoration of coastal ecosystems. Removing barriers for easier access to funds, capacity building, and promoting skill development are vital, especially for developing countries and communities with relatively less capacity. De-risking investments requires long-term finance, conducting cost-benefit analyses, diverse investment schemes, and establishing clear policies and regulations. Mechanisms that channel global and national funding are needed to ensure projects respond to local needs.**

40. Addressing policy barriers, including preventing competition with small-scale fisheries to ensure access to funding, and strengthening leadership and governance for fish stock sustenance were discussed. Concerns were raised about fossil fuel finance to larger fisheries potentially risking small-scale fisheries due to increased competition.

41. Capacity building for governments and fisheries, along with skill development and training for fishing communities, was highlighted. To enhance the resilience of small-scale fisheries, participants referred to the implementation of the Food and Agriculture Organization "Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries".

42. Ensuring access to finance for small-scale producers and removing unnecessary barriers were emphasized. Recommendations were made to the Standing Committee on Finance and financing entities (Green Climate Fund and Global Environment Facility) to include blended finance in their workplan and increase ocean-related investments.

43. Participants highlighted the lack of funding for SDG 14, urging increased financial support for sustainable fisheries and aquaculture, particularly for small-scale fisheries. Initiatives like the United Kingdom's Fisheries Industry Science Partnership scheme and the European Maritime, Fisheries and Aquaculture Fund were shared.

44. Participants emphasized the need to involve the private sector in sustainable blue food production, highlighting Suriname's certified sustainable shrimp fishery collaboration with the Marine Stewardship Council, government and industry.

45. **It is crucial that Parties mainstream ocean-related mandates from COP 26 and COP 27/ CMA 4 into their national climate goals and in the implementation of these goals, as well as within UNFCCC processes, including in the global stocktake political outcomes, the Global Goal on Adaptation, and the financial mechanism.**

46. **Institutional linkages must be strengthened between partners at national and international levels and across UN mandates and processes such as the Biodiversity Beyond National Jurisdiction agreement and the Kunming-Montreal Global Biodiversity Framework to enhance global ambition and action for a climate resilient ocean.**

IV. The ocean in the first global stocktake under the Paris Agreement

47. The co-facilitators of the ocean dialogue, in their submission on the elements for the consideration of the outputs component of the first global stocktake, in line with the key messages from the ocean dialogue, called for the inclusion of the ocean in the global stocktake as a primary element in combatting climate change. At the COP28 plenary presentation, the co-facilitators, whilst presenting the outcomes of the ocean dialogue, highlighted the enormous potential of the ocean as a vital source of nutrition for the world.

48. In the outcome of the first global stocktake (Decision 1/CMA.5), Parties noted in the preamble the importance of ensuring the integrity of all ecosystems, including in forests, the

ocean, mountains and the cryosphere, and the protection of biodiversity, recognized by some cultures as Mother Earth including the ocean.

49. The outcome of the first global stocktake invites Parties to preserve and restore oceans and coastal ecosystems and scale up, as appropriate, ocean-based mitigation action (para. 35). Further, Parties note that ecosystem-based approaches, including ocean-based adaptation and resilience measures, can reduce a range of climate change risks and provide multiple co-benefits (para. 56).

50. Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change, the outcome of the first global stocktake, encourages the implementation of integrated, multi-sectoral solutions, such as nature-based solutions and ecosystem-based approaches, and protecting, conserving and restoring nature and ecosystems, including marine and coastal ecosystems, which may offer economic, social and environmental benefits such as improved resilience and well-being (para.55).

V. Fisheries and ocean ecosystems in the nationally determined contributions

51. In the 2023 synthesis report of the secretariat on the nationally determined contributions (NDCs) under the Paris Agreement, the new or updated NDCs reflect an increased recognition of the ocean's role in strengthening climate action.

52. A total of 56 per cent of the 148 Parties integrated coastal and marine nature-based solutions within new or updated NDCs as part of mitigation or adaptation measures.

53. Of the 158 Parties with an adaptation component in their NDCs, 30 per cent identified ocean ecosystems as a priority sector for adaptation and 11 per cent developed quantified targets for both fisheries and ocean ecosystems.

VI. Other processes: The Climate Resilient Food Systems Alliance

54. The vision of the Climate Resilient Food Systems alliance (CRFS) is to accelerate food system transformation through better integrated food and climate action. This vision extends to both land food systems and oceans. UNFCCC is a leading entity for the alliance.

55. In particular, the CRFS Alliance, through its country diagnostics exercise is helping countries to evaluate opportunities and challenges at national level to build resilience to climate change, whilst ensuring sustainability of the systems. Examples include countries such as Fiji and Belize, where aquatic food is essential for both the population's food security and the country's economy.

56. In Belize, one of the NDCs priorities is to strengthen the resilience of coastal communities by developing storm surge early warning systems. To this end, the CRFS Alliance is aiming to support workshops and knowledge sharing of solutions and best practices. In Fiji, the CRFS Alliance aims to enhance the resilience of Fiji's coastal communities by fostering synergies among various initiatives, such as FishFad and Pro Resilient Fiji, which focus on fishing households and communities, along with the implementation of early warning systems.

Annex 1

Visual summary of the breakout group discussions on fisheries and food security