



CLIMATE ACTION NETWORK

Submission: Inputs to inform the dialogue on the ocean and climate change to consider how to strengthen mitigation and adaptation action in this context

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Climate Action Network (CAN) is the world's largest network of civil society organizations working together to promote government action to address the climate crisis, with more than 1300 members in over 120 countries.

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INTRODUCTION

Following decision 1/CP.25, paragraphs 31 and 33, the Climate Action Network welcomes the request to the SBSTA to convene at its 52nd session a dialogue on the relationship between oceans and climate change and the invitation to submit inputs to inform the dialogue.

The ocean is the largest ecosystem on the planet and the most important carbon sink¹. Its waters provide food and livelihoods for a significant percentage of the world's population, making it a key factor in enabling millions if not billions to adapt to climate change. The findings of the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) clearly highlight how the climate crisis is impacting the ocean and reducing its ability to mitigate climate impacts and to provide the ecosystem services required for humans to successfully adapt to climate change. But despite the ocean's importance in solving the climate crisis, the ocean has largely been ignored during climate discussions. The upcoming dialogue has the potential to reverse this trend and for the importance of oceans in climate action to be fully recognised.

This document consists of two main parts: Part One outlines recommendations for “Modalities and Procedures” with the purpose of shaping the dialogue’s work to be effective, rigorous and relevant; Part Two incorporates CAN members’ knowledge and expertise on technical issues related to the ocean and climate change, including language that recognizes the essential link between the ocean and climate, leading to actions that seek to maximize its potential to address the climate crisis.

¹ IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O.Pörtner, D.C.Roberts, V.Masson-Delmotte, P.Zhai, M.Tignor, E.Poloczenska, K.Mintenbeck, A.Alegría, M.Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. p.9

Why is the coming year so important?

For years, the ocean was excluded from official climate negotiations, until the UNFCCC COP25 in December 2019, when the leadership of Costa Rica, Fiji, France, and the Pacific Islands, amongst others, ensured that oceans became a key component of climate action within international climate negotiations². During 2020, Parties are expected to submit their renewed and updated NDCs, which may include content on the ocean and climate change. A series of ocean-related events were also due to be held in 2020, providing additional opportunities to strengthen awareness of the relationship between the ocean and the climate emergency by including it in ocean conservation instruments³.

This presents a unique opportunity for the ocean to gain the urgently needed recognition it requires in the climate action agenda, with its protection and sustainable management as key measures to ensure its full potential for climate action is realised.

The protection of the ocean should not be used as an offset for emissions on land. Land-based emissions are the leading cause of climate change and are degrading marine and coastal ecosystems and decreasing the ocean's natural capacity to act as a carbon sink and stabilise the climate. The recommendations submitted to the Committee should aim to encourage the creation of properly managed marine protected areas, along with other types of area-based conservation and management tools⁴. At the same time, a global call should encourage countries, especially coastal ones, to include corresponding commitments in their updated NDCs.

Part 1: MODALITIES AND PROCEDURES

A. Public Participation

The UNFCCC must ensure a balanced representation of expertise and knowledge during this dialogue, incorporating participatory processes that include State parties, observer organizations, in particular ENGOs, the Indigenous Peoples' Caucus, the Gender Constituency and representatives of coastal communities, who are highly vulnerable to climate change. CAN members can provide valuable contributions to these discussions and should be active participants in the process.

Public participation is key to achieving adequate management of coastal marine ecosystems with a focus on adaptation and climate resilience. The incorporation of these participatory processes can achieve important results in advancing climate action across the ocean, which is of utmost urgency. During these negotiations, priority should be given to coastal countries, especially those highly dependent on marine ecosystems, such as the Group of Small Island Developing States, which will have to deal with major economic and political changes arising directly from climate change.

² Decision 1/CP.25, paragraph 31.

³ CAN notes that the NDC enhancement process and aforementioned meetings, workshops and events could be delayed amid the novel coronavirus pandemic.

⁴ Simard, F., Laffoley, D. and J.M. Baxter (eds). (2016). *Marine Protected Areas and Climate Change: Adaptation and Mitigation Synergies, Opportunities and Challenges*. Full report. Gland, Switzerland: IUCN

B. Increase collaboration and linkages between the UNFCCC and other processes mandated to protect ocean biodiversity

Before the COVID-19 outbreak, a series of international negotiations were scheduled for 2020 to define actions for the conservation, protection and management of marine and coastal ecosystems, in the context of existing - and possibly soon to be - international environmental instruments. Most of these events have been postponed, but we need to make the most of this time to strengthen the dialogue and define common pillars that will drive the agenda forward. The UNFCCC needs to stay in touch with these other instruments and develop policies that will encourage language that favors more ambition as well as the recognition of the crucial link between the ocean and the climate. Constant communication and feedback between instruments of the United Nations system can secure important achievements in the issues of ocean climate resilience. Especially relevant in this context is the Fourth Intergovernmental Conference on an International Legally Binding Instrument on Marine Biodiversity in Areas Beyond National Jurisdiction and the Negotiation of the Post-2020 Global Biodiversity Framework being developed under the Convention on Biological Diversity (CBD). The contributions that these instruments can make to climate action are outlined below.

a. Convention on Biological Diversity

In 2020/2021, there will be an opportunity to negotiate the post-2020 Global Biodiversity Framework⁵. Goals and targets set under this new framework should not only guide the implementation of the CBD, but also provide the biodiversity framework for the whole UN system⁶. In addition, they must comply with the environmental principles of progressivity and non-regression, that is, they must be more ambitious than those presented in the previous decade under the Strategic Plan for Biodiversity 2011-2020.

One of the targets being promoted in this context is to have 30% of the ocean protected by 2030⁷. This target would greatly contribute to the resilience of the ocean and, therefore, to its role as a climate stabilizer. Its achievement relies on national efforts for protection of the ocean within jurisdictional waters and, for international waters or high seas, on the approval of the treaty being negotiated under the UN Convention on the Law of the Seas, since there is currently no global regulatory framework on the latter. The draft post-2020 framework also refers to the conservation and restoration of marine ecosystems, which encompass those fundamental for climate adaptation and mitigation measures such as coral reefs, mangroves and seagrass beds⁸.

⁵ Zero Draft Of The Post-2020 Global Biodiversity Framework:
<https://www.cbd.int/doc/c/efb0/1f84/a892b98d2982a829962b6371/wg2020-02-03-en.pdf>

⁶ Ibid. p.4

⁷ Greenpeace International. "30x30: A Blueprint for Ocean Protection". Retrieved from:
<https://www.greenpeace.org/international/publication/21604/30x30-a-blueprint-for-ocean-protection/>

⁸ Ibid. p.9

b. Fourth Intergovernmental Conference on an International Legally Binding Instrument on Marine Biodiversity in Areas Beyond National Jurisdiction

In December 2017, the UN General Assembly decided to convene an Intergovernmental Conference (IGC) to develop an international legally binding instrument on marine biodiversity in areas beyond national jurisdiction – that is, the ‘high seas’ that cover almost half of our planet and today lack a comprehensive legal framework⁹. This year, the last of four negotiating sessions of the IGC is scheduled to take place. The Agreement draft text includes specific references to climate change. One of the approaches of the treaty is to build the climate resilience of marine ecosystems beyond national jurisdiction¹⁰, which is also one of the suggested objectives for the establishment of the marine protected areas addressed within the treaty¹¹.

Marine protected areas on the high seas are vital to ensure the resilience of the ocean and consequently the health of the planet¹². Among its objectives, the treaty seeks to generate mechanisms to protect areas of critical importance for biodiversity and to establish conservation and management measures, promoting the climate resilience of the ocean. Equally important is that the treaty set robust global standards for environmental impact assessments to address potential harmful effects that human activities may have on the high seas and therefore reducing the recovery capacity of the oceans. The multiple pressures and threats to the ocean demand urgent changes and more ambitious standards in generating climate resilience, and instruments to provide protection from all possible impacts are crucial.

c. Sendai Framework for Disaster Risk Reduction

The Sendai Framework was endorsed by the UN General Assembly following the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR) and advocates for *“the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries”*¹³. The oceans dialogue should ensure that mainstreaming of ocean-based adaptation measures in NDCs and NAPs is aligned with measures and policies under the Sendai Framework on Disaster Risk Reduction, drawing on existing scope and mode of cooperation between the UNFCCC and the Sendai Framework and respecting relevant distinction of responsibilities with regard to disaster risk reduction and adaptation.

⁹ United Nations General Assembly Resolution A/RES/72/249: <https://undocs.org/en/a/res/72/249>

¹⁰ Article 5. Zero Draft: <https://undocs.org/en/a/conf.232/2020/3>

¹¹ Article 14. Zero Draft: <https://undocs.org/en/a/conf.232/2020/3>

¹² High Seas Alliance. Protecting half the planet: a new treaty on biodiversity in the high seas by 2020 Retrieved from: http://highseasalliance.org/sites/highseasalliance.org/files/HSA_LBTreaty_Esp_Oct19_web%20%281%29.pdf

¹³ <https://www.undrr.org/implementing-sendai-framework/what-sf>, accessed on March 27, 2020

C. Outputs from the dialogue

Outputs from the SB52 Dialogue should ensure that the benefits of mainstreaming and integrating ocean issues into relevant UNFCCC workstreams are highlighted and advanced. At COP 26 Parties should agree on a process or program to take forward the discussion on Oceans, their inclusion in the response to climate change and to systematically engage on the relevant science when developing responses.

D. Avoiding conflicts of interest

The dialogue on oceans and climate change should not undermine the objectives of the UNFCCC and, the access of polluting industries, trade associations and other entities which represent and/or are beholden to the interests of polluting industry must be restricted or excluded from participation.

Part 2. MAIN INPUTS AND RECOMMENDATIONS FOR THE DIALOGUE

A. Relationship between climate and ocean

The ocean is the main climate regulator on the planet. Ocean currents set the tone for the seasons and the interaction between air and ocean currents generates tropical storms, hurricanes and typhoons¹⁴. A healthy ocean means a healthy climate system. One of the most important services that the ocean provides is its capacity to absorb emissions. Mangroves and seagrasses¹⁵, for example, capture approximately 30% of the total CO₂ emitted throughout history. In addition, it has been able to retain approximately 90% of the excess atmospheric heat caused by climate change¹⁶. Mangroves and coral reefs also function as natural barriers against tropical storms, which are increasing in frequency and intensity¹⁷ due to the effects of climate change.

B. Effects of climate change on the ocean

The climate emergency has led to the degradation of the ocean and its ecosystem services. The increasing amounts of CO₂ captured by the ocean is altering its pH, leading to a process of acidification¹⁸. This especially affects organisms that depend on exoskeletons and

¹⁴ National Geographic Resource Library. Ocean Currents and Climate. Retrieved from: <https://www.nationalgeographic.org/media/ocean-currents-and-climate/>

¹⁵ Huxham, M., Whitlock, D., Githaiga, M. *et al.* Carbon in the Coastal Seascape: How Interactions Between Mangrove Forests, Seagrass Meadows and Tidal Marshes Influence Carbon Storage. *Curr Forestry Rep* 4, 101–110 (2018). <https://doi.org/10.1007/s40725-018-0077-4>

¹⁶ IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O.Pörtner, D.C.Roberts, V.Masson-Delmotte, P.Zhai, M.Tignor, E.Poloczanska, K.Mintenbeck, A.Alegria, M.Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]

¹⁷ Guannel G, Arkema K, Ruggiero P, Verutes G (2016) The Power of Three: Coral Reefs, Seagrasses and Mangroves Protect Coastal Regions and Increase Their Resilience. *PLoS ONE* 11(7): e0158094.

¹⁸ IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O.Pörtner, D.C.Roberts, V.Masson-Delmotte, P.Zhai, M.Tignor, E.Poloczanska, K.Mintenbeck, A.Alegria, M.Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)].

calcareous substrates, including coral reefs and mollusks, whose growth and capacity to regenerate are impaired¹⁹, disturbing the balance of ecosystems and food security.

The climate emergency has also resulted in a rise in ocean temperature, due to greater absorption of heat from the atmosphere, which has caused phenomena such as coral bleaching to become increasingly frequent and destructive²⁰. In addition, changes in temperature have generated changes in ocean currents, affecting the life cycles and population distribution of different fish species²¹.

C. Mitigation

It is important to keep in mind that the ocean will be at its maximum potential to stabilize the climate by absorbing and sequestering carbon if we conserve it and consider it as the greatest nature-based solution to climate change. The ocean should not be used as a market to offset emissions on land, because the excessive absorption of CO₂ into the ocean is resulting in the impacts described above. Our efforts must focus on promoting its resilience through its protection, restoration and the sustainable management of key ecosystems and species, while reducing the onshore emissions that also directly affect it. Governments have the opportunity to advance their protection and conservation of the oceans, allowing humanity to take advantage of the most important natural tool we have to face the climate emergency. In tandem, efforts should be made to transition to a low carbon economy through other means, such as the development and deployment of nature-sensitive renewable energy; this should include offshore/ocean-based renewable energy sited and operated in accordance with strategic environmental assessment and comprehensive associated planning processes.

D. Adaptation

Intact coastal and marine ecosystems are key to enable effective adaptation to increasing ocean-related climate change impacts, such as sea-level rise, salt-water intrusion and increased frequency and intensity of extreme-weather events. Coastal ecosystems help protect the world's coastlines and buffer ocean-impact on the land. They have the ability to lower the impact of storm surges and flooding, and are capable of mitigating the impacts of sea-level rise by increasing ecological and community resilience. In order to maintain these natural capacities, it is essential to promote and take advantage of the coastal protection functions of these ecosystems. For example, through highlighting their cost-effectiveness and calling for their further integration into the spatial planning of coastal areas.

E. Resilience

In light of the climate crisis, reducing the vulnerability and increasing the resilience of ecosystems, societies and communities, will help to increase the coping capacity of nature and people. With regard to ocean-related climate change effects, it is important to maintain

¹⁹ The Ocean Portal Team, reviewed by Jennifer Bennet (NOAA) "Ocean Acidification" Smithsonian Institute. <https://ocean.si.edu/ocean-life/invertebrates/ocean-acidification>

²⁰ NOAA. What is coral bleaching? National Ocean Service website, https://oceanservice.noaa.gov/facts/coral_bleach.html

²¹ Pierre-Louis, K. "Ocean Warming Is Accelerating Faster Than Thought, New Research Finds" New York Times, January 10, 2019. Retrieved from: <https://www.nytimes.com/2019/01/10/climate/ocean-warming-climate-change.html>

the integrity of marine and coastal ecosystems through the designation and appropriate management of protected areas and other effective area-based conservation measures (as defined under the CBD). Protected and conserved areas are key to strengthen the resilience of the ocean and the communities that directly benefit from its services and resources.

F. Food security

Marine ecosystems also play a key role in food security. Fisheries provide more than 20% of the average per capita animal protein intake for 3 billion people worldwide (more than 50% in some less developed countries)²² and provide livelihoods for 200 million people²³. Dependence on fish is usually higher in coastal areas than in inland areas, and is especially critical for rural populations and some small island states that often have less diverse diets and higher rates of food insecurity.

Coral reefs are one of the most productive ecosystems on the planet and are home to a large number of marine species²⁴. They are a primary source of fish for subsistence and commercial use. In addition, mangroves and seagrasses act as nurseries for multiple species of fish²⁵. Climate change has tremendous impacts on marine ecosystems, affecting nutrient circulation and food-chains, thus putting food security and livelihoods of billions at risk. The sustainable management and conservation of these ecosystems is imperative, and an important investment in the future.

G. Coastal developing countries

In order to support those who are increasingly the most affected by climate change, and its impact on the ocean and its ecosystems, the ocean dialogue should in particular consider solutions that increase the capacity of coastal developing countries to respond. Example solutions include leveraging support for finance, capacity building, education and technology transfer, and other actions that benefit coastal communities and small-scale fisheries.

RECOMMENDATIONS:

- Invest in nature-based solutions and increased synergies on financing between the ocean and the climate agenda. This will work to maximise the potential of marine ecosystems to sequester and store carbon, and to help communities to adapt to the climate emergency. Example investments include the protection and restoration of wetlands, mangroves, seagrass beds, kelp forests, and marine wildlife, effectively conserving over 30% of the global ocean through a network of Marine Protected Areas by 2030.

²² FAO. 2018. The State of World Fisheries and Aquaculture 2018 - Meeting the sustainable development goals. Rome.

²³ Béné, C. Small-scale fisheries: assessing their contribution to rural livelihoods in developing countries. FAO Fisheries Circular. No. 1008. Rome, FAO. 2006. 46p.

²⁴ IPCC. Global Warming of 1.5 C. Summary for policy makers. http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf p. 10
WWF. "Coral Reefs". https://wwf.panda.org/our_work/oceans/coasts/coral_reefs/

²⁵ United Nations Environmental Programme y World Conservation Monitoring Center (UNEP-WCMC). (2006). "In the Front line: Shoreline Protection and other Ecosystem Services from Mangroves and Coral Reefs". Cambridge, United Kingdom. P 12. http://www.unep-wcmc.org/resources/publications/UNEP_WCMC_bio_series/24.cfm.

- Invest in low-impact ocean-based renewable energy sectors, ensuring minimal impact on the marine environment.
- Reduce the impact of the shipping sector through a International Maritime Organisation (IMO) ban on Heavy Fuel Oils in the Arctic and a reduction of ship speed, both of which will significantly decrease GHG emissions, while reducing noise level and whale strikes. In addition, request that the IMO introduces an emissions reduction pathway for international shipping that is compatible with the Paris Agreement's objective of keeping warming below 1.5 degrees Celsius and works towards implementing short, mid and long-term policies as soon as possible to ensure this emission reduction pathway is operationalised.
- Where possible, halt all new offshore oil and gas exploration and production, immediately reduce the impacts of installations already running or under development, and adopt a strategy to phase out current offshore oil and gas extraction.
- End all direct and indirect fuel subsidies including fuel tax exemptions for the shipping and fisheries industry.
- End overfishing and shift to low impact fisheries as an immediate climate action that will restore fish populations and their ecosystems and ensure the enhanced climate resilience of the ocean. The 2019 IPBES Global Assessment report indicates that fisheries are a main cause for marine biodiversity loss. Healthy and abundant fish populations will not only enhance ocean resilience, but will also decrease the travel distance and effort required in catching fish, and therefore the amount of fuel required and CO₂ emissions produced. The reduced costs would make for a more economically viable fishing fleet.
- Include a call to governments and scientists to not use mitigation measures in the ocean as carbon offsets to enable more emissions on land. Apart from needing more aggressive emission reductions, too much CO₂ being sequestered by the ocean is causing acidification which impairs the ability of the ocean to help with mitigating and adapting to climate change. Adaptation, increasing resilience and maximizing co-benefits through conservation and management should be prioritized, rather than establishing the ocean as a carbon offset. Mitigation and other positive results can be taken into account as co-benefits of marine conservation and explicit adaptation measures.
- Enhance scientific research where needed, e.g. on blue carbon sequestration, and call on Parties to facilitate knowledge exchange and to provide means to execute research activities.

CONCLUSION

Creating a comprehensive and integrated system of international instruments to protect the ocean by increasing its resilience and capacity to adapt to climate change is vital to face the climate crisis. The link between oceans and climate has to be made clear in all international negotiations referring to oceans and/or to the climate. The recognition of this link is key to ensure our greatest potential for survival and well-being, in the face of the climate crisis.