Our Fish

Our Fish is working to end overfishing and restore a healthy ocean ecosystem. In collaboration with others and by deploying robust evidence, we are calling for an end to overfishing as a critical and significant action to address the biodiversity and climate crisis.

http://ourfish.eu/

Contact: Rebecca@our.fish

+61 490 801 490

SUBMISSION TO: Possible topics for the Ocean and Climate Change Dialogue 2022

Session Name: SBSTA56 in 2022

Mandate: Decision 1/CP.26 Glasgow Climate Pact (paragraph 61)

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All people on Earth depend on the ocean. It generates nearly every second breath we take; has absorbed 90 percent of the excess heat of the last 50 years; and sequestered up to thirty percent of all carbon emissions[1]. Yet its role in supporting life on the planet and regulating the climate has been overlooked and we have instead overexploited and degraded it, putting its life-supporting functions under severe pressure. At the UNFCCC, it has been relegated to a side-act until now. Recognising this role and reflecting it with corresponding targets and work streams in the UNFCCC process is urgent. We are therefore grateful for decision 1/CP.26 Glasgow Climate Pact (paragraph 61) to hold an annual dialogue to strengthen ocean-based action, and for the opportunity to provide the SBSTA Chair with our views on possible topics for the Ocean and Climate Change Dialogue to take place in conjunction with SBSTA 56 in 2022.

As the latest IPCC report of 2022 clearly states, we don't have time to beat around the bush: every 0.1 degree counts and every ton of CO2 counts.[2] We must mitigate, adapt and build resilience on all possible fronts, as soon as possible, because the impacts on the environment and people will be devastating. Restoring nature, and the ocean's capacity to adapt to climate change and boost its capacity to mitigate climate change, is therefore an essential part of the UNFCCC mission and must be integrated urgently.

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[1] 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. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)], 2019. https://www.ipcc.ch/srocc/

[2] IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.

Recommendations

1. **Clearly reducing greenhouse gas and CO_2 emissions in line with the Paris Agreement's objective of keeping warming below 1.5 degrees Celsius is a priority goal, however this cannot be done to the detriment of ocean biodiversity and ecosystem services, which are key to planetary health, and adaptation and mitigation to the climate change impacts that are already locked in.**

- The capacity of the global ocean to continue to perform ecosystem services such as absorbing greenhouse gas (GHG) emissions, sequestering carbon, absorbing excess heat, producing oxygen, and regulating weather systems, is being massively impacted by unceasing GHG emissions and climate change. For example, it's capacity to continue to absorb CO2 and heat is diminishing as these elements increase in the ocean, and in turn, this will make the impacts of GHG emissions and heating substantially worse. Hence, it is essential that we increase the oceans capacity to perform these services, as far as is possible, and at all costs, prevent undermining them. Both emissions reduction and marine recovery are essential in the fight against climate change.
- Any proposed climate action in the ocean, that impacts on the ocean's ability to provide ecosystem services (eg. Wind turbines at sea), must be thoroughly assessed and planned so that they avoid causing excessive impacts eg. Avoid areas of high biodiversity, high value conservation areas, spawning and feeding grounds of fish and sensitive species, etc.

2. **Put the ocean inside the UNFCCC, increase ocean literacy and collaboration with UN Oceans and other international organisations**

- Implementing Ocean solutions at a global level could potentially account for up to one fifth of the emissions reductions needed to meet the Paris Agreement goal of limiting global warming to 1.5°C.[4] It needs to be recognized as such.
- Mainstreaming knowledge of the central importance of the ocean to planetary health and climate functioning, would greatly increase support for urgent ocean action. The UNFCCC should collaborate with and leverage the work of the UN Decade of Ocean Science for Sustainable Development, and further extend the dissemination of the findings of the IPCC's work as it relates to the ocean.
- Engaging UN Oceans in further advancing the development of the scientific basis needed for fully integrating carbon and CO2 emissions accounting from ocean ecosystems and activities would increase scientific expertise and collaboration between the agencies.
- The UNFCCC should urge the International Maritime Organisation (IMO) to reduce the significant climate impact of the shipping sector through a ban on Heavy Fuel Oils in the Arctic and a reduction of ship speed immediately. They should also be requested develop a plan to decarbonise in line with the Paris Agreement's objective of keeping warming below 1.5 degrees Celsius.

3. **Broaden the blue carbon accounting system and establish a parallel system (to LULUCF) for emissions from, and at, sea**

- Marine sediments form the largest pool of organic carbon on Earth,[2] which is estimated to store about 38 trillion metric tons of carbon[3]. The carbon stored by the top layer of marine sediments is nearly double the amount contained in all terrestrial surface soils.[3] If disturbed by bottom trawling, these carbon stores can re-mineralize sedimentary carbon to CO2, currently estimated to release 1.47 billion tonnes of aqueous CO2 emissions annually, a volume similar to the global aviation industry which is likely to increase acidification, reduce the buffering capacity of the ocean and potentially add to atmospheric

[3] Atwood, T.B., Witt, A., Mayorga, J. et al. (2020). Global Patterns in Marine Sediment Carbon Stocks. *Frontiers in Marine Science, 7*. https://doi.org/10.3389/fmars.2020.00165

CO_2[4]. Therefore, protecting the carbon-rich seabed is a potentially important strategy in addressing climate change, and it is currently missing from the UNFCCC process.

- Yet, mangroves, saltmarshes and seagrasses - referred to as "coastal blue carbon"- are currently the only marine ecosystems included under national mitigation strategies, as planned by the UNFCCC and Paris Agreement, and supported with a GHG accounting methodology (2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands).
- Other coastal and marine ecosystems such as kelp forests, algae, and seabeds, require increased understanding of their sequestration potential to ensure adequate policy guidance building on sound scientific data is developed.
- These ecosystems are found in both coastal waters and the deep sea, out to 200 nautical miles in country's national jurisdictions. It is incoherent to incorporate them into the LULUCF accounting system, and they deserve a parallel process for developing methodological guidance on accounting for carbon stores and emissions as a result of their removal or disturbance.

4. End overfishing and include precautionary fisheries management in a parallel blue carbon accounting system

- Marine species, as part of the ocean's carbon pump, have an indispensable role in mitigating climate change.[8] An ocean teeming with life allows for carbon sequestration; specifically, it has been estimated that fish contribute to 16% of total ocean carbon flux.[5] Small pelagic fish, such as mackerel, herring and anchovy, are especially important carbon sinkers.[8] Recent evidence suggests fishing activities remove significant amounts of blue carbon from the ocean, releasing it into the atmosphere[6]. Climate change is further accelerated through fuel consumption by fishing vessels, which in the EU alone, accounts for nearly 7.3 million tons of CO_2 emissions per year[7]. The fishing sector's carbon footprint is further magnified when bottom trawling disturbs carbon retained in seafloor sediment (as per above).
- Yet one third of the world's fisheries are not biologically sustainable, and sixty percent are fished to their limit[8]
- Ending overfishing and shifting to low impact fisheries as an immediate climate action will restore fish populations and their ecosystems and ensure the enhanced climate resilience of the ocean. Healthy and abundant fish populations will also decrease the travel distance and effort required in catching fish, and therefore the amount of fuel required and CO_2 emissions produced.
- A blue carbon accounting system (parallel to LULUCF) should include comprehensive guidelines for accounting of emissions from the fishing sector through the burning of fuel, and its impact on fish populations, marine habitats and the seabed, so that countries can measure and manage the full suite of ocean climate action strategies.

5. End fuel subsidies and other subsidies that worsen CO_2 emissions and perpetuate overfishing, and accelerate decarbonization of fishing fleets

- Each year, the global fishing fleet is subsidized through detaxation of fuel – in the EU alone, these subsidies account to approximately €1.5 billion.[9] These subsidies fuel overcapacity and overfishing,

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[4] Sala, E., Mayorga, J., Bradley, D. et al. 'Protecting the global ocean for biodiversity, food and climate' (2021)

[5] SA Saba, G.K., Burd, A.B., Dunne, J.P. et al. (2021). Toward a better understanding of fish-based contribution to ocean carbon flux. *Limnology and Oceanography, 66*. https://doi.org/10.1002/lno.11709

[6] Mariani, G., Cheung, W.W.L., Lyet, A. et al. (2020). Let more big fish sink: Fisheries prevent blue carbon sequestration—half in unprofitable areas. Science Advances, 6. https://doi.org/10.1126/sciadv.abb4848

[7] Our Fish (2021). The Fishing Industry's Financial Gains Due To Fuel Tax Reductions For The Past 10 Years. A selection of cases within European fishing fleets. https://our.fish/publications/report-climate-impacts-fishing-industry-profits-from-eu-fuel-tax-subsidies/

[8] United Nations (2021), The Second World Ocean Assessment, Volume I. United Nations publication ISBN: 978-92-1-1-130422-0

[9] U.R., Sumaila, N., Ebrahim, Schuhbauer, N. et al. (2019). Updated estimates and analysis of global fisheries subsidies. *Marine Policy, 109*. https://doi.org/10.1016/j.marpol.2019.103695

increase the profits of large-scale industrial fisheries as they only benefit the largest fuel consumers, and increase CO2 emissions, further aggravating the climate crisis.[10]

- Fuel subsidies should be highlighted within the UNFCCC process in terms of emissions reporting and NDCs. The UNFCCC should support progress at the WTO to remove harmful fisheries subsidies in particular fossil fuel subsidies.
- The Ukraine war has exposed that our dependence on oil is not only perpetuating the climate crisis, it leaves us vulnerable to geopolitical uncertainty and disruption, which will only increase as the climate crisis worsens. Yet unlike other sectors (e.g. agriculture, transport) there is a disturbing lack of medium or long-term planning for fishing fleets to decarbonise.
- The UNFCCC should request governments develop plans to decarbonize fishing fleets, so that they are not dependent on fossil fuels and state aid, and operate in line with the Paris Agreement's objective of keeping warming below 1.5 degrees Celsius.

6. Mandate the inclusion of ocean NDCs for all countries with sea country

- Out of 118 countries that have submitted their NDCs as of 21 October 2021, 71 have included coastal and marine Nature Based Solutions. Among these, 45 countries included coastal and marine Nature Based Solutions for both mitigation and adaptation purposes, 1 for mitigation only, and 25 for adaptation only.[11]
- As has been outlined above through the role of ocean ecosystems and the impact of fishing activities on the ocean's capacity to mitigate and adapt to climate change, every country with sea country (marine territory) should submit a range of NDCs related to blue carbon stores and emissions from impacting blue carbon stores.
- The UNFCCC should support and mandate the inclusion of ocean NDCs for all countries with sea country, by establishing a parallel (to LULUCF) transparent, science-based, accounting process.

7. Halt all new offshore oil and gas exploration and production, and phase-out existing operations.

8. Increase investment into marine nature-based solutions through enhanced synergies on financing between the ocean and the climate agenda.

[10] Our Fish and ClientEarth (2021). Stop Fossil Fuel Subsidies Statement. https://stopfossilfuelsubsidies.eu/wp-content/uploads/2021/05/StopFossilFuelSubsidies-STATEMENT_final.pdf

[11] Lecerf, M., Herr D., Thomas, T., Elverum, C., Delrieu, E. and Picourt, L., (2021), Coastal and marine ecosystems as Nature-based Solutions in new or updated Nationally Determined Contributions, Ocean & Climate Platform, Conservation International, IUCN, GIZ, Rare, The Nature Conservancy, Wetlands International and WWF. https://ocean-climate.org/wp-content/uploads/2021/10/coastal-and-marine-ecosystemDEF.pdf