POLITICAL NARRATIVE

Including coastal wetlands within the European Union climate strategy

JULY 2021

RECOMMENDED CITATION:

OCEAN & CLIMATE (2021). Political narrative. Including coastal wetlands within the European Union climate strategy. Ocean & Climate Platform. Conservation International and Wetlands International. p1-8.

ACKNOWLEDGMENTS:

This policy narrative was co-authored by Loreley Picourt (Ocean & Climate Platform), Esther Delrieu (OCP), Tamara Thomas (Conservation International), Maggie Comstock (CI), and Fanny Gauttier (CI).

The co-authors would also like to thank the following experts for their external review, expert opinion and valuable contributions: Lea Appulo (Wetlands International), Alberto Arroyo Schnell (IUCN) and Maria Del Mar Otero (IUCN).

CREDITS:

ACRONYMS:

CBD: Convention on Biological Diversity
EU: European Union
IPCC: Intergovernmental Panel on Climate Change
GHG: Greenhouse gas
LULUCF: Land Use, Land-Use Change and Forestry
MPA: Marine Protected Area
NBSAP: National Biodiversity Strategies and Action Plans
NDC: Nationally Determined Contribution
UNFCCC: United Nations Framework Convention on Climate Change

(1) CONTEXT:

(a) Definition and value of coastal wetlands (mangroves, seagrasses, saltmarshes)

Coastal wetlands are vegetated coastal habitats which act as "Blue carbon" ecosystems; they sequester and store global atmospheric carbon emissions at a high rate, thus mitigating climate change. Indeed, **despite only covering 2% of the ocean, mangroves, seagrasses and saltmarshes account for approximately 50% of the total carbon sequestered in ocean sediments [1]**. These ecosystems store up to four times more carbon per hectare than most other tropical forests. For example, estimations show that the annual carbon sequestration of mangroves is two to four times greater than global rates of tropical forests **[2]**. Yet, **coastal wetlands are rapidly disappearing at global scales, as they are particularly vulnerable to climate change impacts and other anthropogenic pressures** (e.g. pollution, erosion, coastal development). According to the United Nations Framework Convention on Climate Change (UNFCCC), 20 to 50% of mangrove, seagrass and saltmarsh ecosystems have already been degraded or destroyed **[3]**.

Apart from their mitigation potential, **coastal wetlands are crucial to adapt to the adverse impacts of climate change,** since they constitute effective natural buffers against sea level rise, coastal erosion, extreme weather events, and other climate change impacts. Additionally, **coastal wetlands also generate positive co-benefits to human development** - for instance, they support healthy fisheries, and improve air and water quality.

Considering coastal wetland ecosystems, Continental Europe mostly holds seagrasses and saltmarshes. For example, one can find several species of seagrass in the Mediterranean basin (e.g. *Posidonia oceanica*, *Z. noltii*), as well as along the Atlantic coast (e.g. *Zostera marina*). A few studies have looked into the carbon absorption and storage potential of these habitats across mainland Europe **[4]**. For instance, based on the estimate of saltmarsh and seagrass coverage of 3 million hectares in Europe, carbon stocks generated by these ecosystems could represent 1.5 to 4% of existing global stock from coastal wetlands **[5]**. **The European Union's outermost regions account for a significant amount of coastal wetlands**, especially mangrove forests, and should not be overlooked to achieve the EU's climate objectives as part of the "Fit for 55"

[1] The Blue Carbon Initiative (2021). Mitigating Climate Change through Coastal Ecosystem Management.
[2] ibid.
[3] Isensee, K., et al. (2019). Coastal Blue Carbon Ecosystems Nature-Based Solutions.
[4] IUCN (2021). Manual for the creation of Blue Carbon projects in Europe and the Mediterranean.
[5] Luisetti T., et al. (2019) Quantifying and valuing carbon flows and stores in coastal and shelf ecosystems in the UK.

package. **The interest in enhancing the protection, conservation and restoration of coastal wetlands within the European Union climate strategy is twofold**. Firstly, it would enable these coastal ecosystems to maintain their crucial mitigation and adaptation functions. Secondly, the degradation and destruction of coastal wetlands may contribute to climate change, as it releases the carbon dioxide which had been stored for centuries **[6]** and reduce the resilience of the coast to extreme events.

(b) The inclusion of coastal wetlands within the EU climate framework

Mangroves, saltmarshes and seagrasses are currently the only coastal ecosystems included under national mitigation strategies, as planned by the UNFCCC and the Paris Agreement (2015). The IPCC's *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands 1* (the "Wetlands Supplement"), **[7]** provides scientific knowledge and methodologies to account for carbon emissions and removal from these three ecosystems, thus supporting their inclusion within national GHG inventories and Nationally Determined Contributions (NDCs). The adaptation and mitigation values of coastal wetlands have have recently been further underlined in the IPCC's Special Report on the ocean and cryosphere in a changing climate **[8]**, published in 2019.

The protection, restoration, and conservation of coastal wetlands could be included within the majority of NDCs, since **151 Parties possess at least one of these habitats, and 71 encompass them all [9]**. Given the cross-cutting aspect of coastal wetlands, they could fit into both mitigation and adaptation sections of NDCs. However, the inclusion of coastal wetlands within NDCs remains limited. As a matter of fact, only 19% of Parties possessing coastal wetlands specifically included them as mitigation components in their 2015 NDC **[10]**.

For the first time, the **EU's revised NDC and related climate law take into account "removals",** which directly refer to carbon sinks such as forests and coastal wetlands, regulated under the LULUCF (land use, land-use change and forestry sector) framework. However, their inclusion in national implementation plans will only become compulsory as of 2026, **and will only concern managed wetlands**. Another challenge is the **lack of a harmonised definition of coastal wetlands**, as the implementation of the IPCC supplement by member states is only voluntary. For

[6] The Blue Carbon Initiative (2021). Mitigating Climate Change through Coastal Ecosystem Management.
[7] IPCC. (2014). 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands
[8] IPCC (2019). Summary for Policymakers. In: Special Report on the Ocean and Cryosphere in a Changing Climate
[9] The Blue Carbon Initiative (2021). Mitigating Climate Change through Coastal Ecosystem Management.
[10] Herr, D. and Landis, E. (2016). Coastal blue carbon ecosystems. Opportunities for Nationally Determined Contributions.

instance, France identifies mangrove ecosystems as forests instead of wetlands.

The **"Fit for 55" package could be an opportunity to better define coastal wetlands**, and how they can have a greater role within the LULUCF regulation, to be in line with the -55% GHG emissions objective by 2030.

(c) Unlocking the potential of blue carbon to deliver on the biodiversity-climate nexus

Restoration and protection efforts regarding coastal wetlands could also be further included within the European Biodiversity Strategy for 2030, especially as nature restoration targets. Additionally, the European Union could take into account coastal wetlands within other international climate and biodiversity frameworks, such as the 2025 revised cycle of NDCs **[11]** and National Adaptation Plans, under the UNFCCC, as well as National Biodiversity Strategies and Action Plans (NBSAPs), under the Convention on Biological Diversity (CBD).

(d) Financial mechanisms to support coastal wetland projects at the European level

Carbon market mechanisms constitute major financial tools to optimise the integration of coastal wetlands within the European climate strategy. As the European Commission is exploring methodologies around "carbon farming", as part of the future EU Carbon Removal Certification Mechanism, we should not miss the opportunity to include the protection and restoration of coastal wetlands in such a mechanism in the first stage of development of such mechanism.

Additionally, **several national and regional governments developed some initiatives around carbon offsets** (e.g., the United Kingdom's Peatland Carbon Code, Germany's MooresFutures, Spain's Proyectos de absorción de CO2). In particular, the French Ministry of Ecological and Inclusive Transition's Label bas-carbone has planned to develop a mangrove-related methodology from 2020 - the GROVE-FIT **[12]** project. This would enable companies which are willing to reduce their carbon emissions to then finance future projects of coastal wetlands conservation and restoration. **[13]** Other countries in the world have already developed carbon accounting methodologies for coastal wetlands, such as Colombia and Costa Rica.

[11] Anisha, N.F., et al., (2020). Locking Carbon in Wetlands: Enhancing Climate Action by Including Wetlands in NDCs.
[12] Mazurek M., (2020). EcoAct lance Grove-FIT.
[13] IUCN (2021). Manual for the creation of Blue Carbon projects in Europe and the Mediterranean.

(e) Case studies: three examples of European coastal wetland projects

➤ LIFE "Seaforest" project, Italy (2018-2023)

As part of the European Environment and Climate Action subprogram (LIFE), the **"Seaforest" project aims to conduct concrete actions for the conservation of the Neptune grass (*Posidonia oceanica*) meadows.** The Posidonia meadows habitat is disappearing at a rate four times higher than terrestrial forests, due to anthropic pressures. The LIFE "Seaforest" project was developed in several Italian regions like Campania and Sardinia, and involves three National Parks and their respective Marine Protected Areas (MPAs). By reducing erosion and subsequently protecting the ecosystems of the Posidonia meadows, this project will increase the carbon storage capacity of these habitats, ultimately achieving a positive carbon balance of 17 million tonnes.

➤ LIFE "Blue Natura" project, Spain (2015 – 2019)

The **LIFE "Blue Natura" project** aimed to quantify the carbon deposits and sequestration rates of **saltmarsh and seagrass meadow habitats** of Andalusia to evaluate their mitigation potential. The assessment provided information on what is accumulated under the ground or sea and analyzed predicted future developments; the analysis spanned from carbon loss rate, to potential carbon fixation and accumulation rates, and to emission/ sequestration ratio of carbon from damaged meadow zones into the atmosphere. The LIFE "Blue Natura" project also **explored and promoted existing initiatives financing conservation and restoration of coastal wetlands within adaptation and mitigation policies**, with a particular emphasis on carbon offsetting markets. **[14]** Finally, one of the main targets of the project was the development of standards for the verification of carbon credits related to coastal wetland and seagrass restoration and conservation initiatives, under the new climate law and the Andalusian Emissions Offset System. Key public and private stakeholders were involved to achieve these objectives.

➤ LIFE "Wetlands4Climate" project, Spain (2020 - 2024)

The **LIFE "Wetlands4Climate" project** seeks to **establish guidelines for the management of Mediterranean wetlands** to foster their capacity as carbon sinks while maintaining their ecological integrity and function so they can continue to provide all the services of a healthy ecosystem. The project provides a method of quantifying carbon exchanges and GHG emissions between aquatic ecosystems and the atmosphere, proposing climate change mitigation measures based on wetlands.

[14] Life Blue Natura (2021). Actions and objectives.

management. The project also contributes to implementing climate policy on LULUCF, generating data on carbon sequestration in wetlands and the management methods that favour it. The project also proposes mechanisms for allowing private initiative to voluntarily sign up to this mission to multiply the benefits of conserving biodiversity and mitigating climate change.

(f) First blue carbon verified credits in the world:

➤ **REDD+ project in Cispata, Colombia (2015-2045)**

Historically, mangroves have been excluded from carbon markets because early verification methods could not accurately account for the carbon stored underwater, where up to 60 percent of the carbon stored by these ecosystems resides. To address this shortcoming, Conservation International (CI) and partners helped develop the methods to precisely measure the carbon stored in the soil, beneath the water, as part of the first REDD+ project on mangroves in Cispata, Colombia. The project is the first in the world to use the new Verified Carbon Standard (VCS) blue carbon modules to generate credits from a blue carbon ecosystem. It will also be verified for the Community, Carbon, and Biodiversity (CCB) certification – as about 12,000 people living in or around the project area will have direct and indirect benefits. Overall, the project is planned for 30 years, with an expected total reduction of 939,296tCO2e. It is receiving credits for reducing deforestation in about 7,561 ha of mangrove, but the funding generated by the sale of credits will contribute to funding the management and protection of the entire 11,800 ha protected area.

(2) POLICY RECOMMENDATIONS
FOR THE INCLUSION OF COASTAL WETLANDS WITHIN THE EU CLIMATE LEGISLATIVE FRAMEWORK

- Firstly, **including coastal wetlands within the EU Climate strategy should not impede efforts to reduce GHG emissions**.

- Supporting the production of scientific data regarding coastal wetlands is crucial at the European level. Indeed, **mapping coastal wetland ecosystems in continental Europe and overseas territories will identify where conservation and restoration strategies should primarily be implemented**.

- The **"Fit for 55" package** should be an opportunity to insert a reference to coastal wetlands and the IPCC 2013 supplement in the revised LULUCF regulation.

- **Carbon market mechanisms are additional financial tools to support European coastal wetlands protection and restoration projects**. The European Commission should catalyse existing experiences related to coastal wetlands to be included in the future EU Carbon Removal Certification Mechanism in early stages.

- Finally, **ensuring global political coherence between climate and biodiversity objectives**, in particular the UNFCCC obligations, **and the Post-2020 Biodiversity Framework is necessary**, especially when regarding coastal wetland conservation and restoration efforts, as they represent both climate-smart and biodiversity-positive targets.




REFERENCES:

Anisha, N.F., et al., (2020). Locking Carbon in Wetlands: Enhancing Climate Action by Including Wetlands in NDCs. Corvallis, Oregon and Wageningen, The Netherlands: Alliance for Global Water Adaptation and Wetlands International. available at: https://www.wetlands.org/publications/locking-carbon-in-wetlands/

Herr, D. and Landis, E. (2016). Coastal blue carbon ecosystems. Opportunities for Nationally Determined Contributions. Policy Brief. Gland, Switzerland: IUCN and Washington, DC, USA: TNC. available at: https://www.nature.org/content/dam/tnc/nature/en/documents/BC_NDCs_FINAL.pdf

Isensee, K., et al. (2019). Coastal Blue Carbon Ecosystems Nature-Based Solutions. Intergovernmental Oceanographic Commission of UNESCO, International Union for Conservation of Nature. Conservation International. Smithsonian Environmental Research Center. available at: https://www.iucn.org/sites/dev/files/english_blue_carbon_lr.pdf

IPCC. (2014). 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Hiraishi T, Krug T, Tanabe K, Srivastava N, Baasansuren J, Fukuda M, and Troxler TG. (eds). Published: IPCC, Switzerland. available at: https://www.ipcc.ch/site/assets/uploads/2018/03/Wetlands_Supplement_Entire_Report.pdf

IPCC (2019). Summary for Policymakers. In: Special Report on the Ocean and Cryosphere in a Changing Climate (H.-O. Portner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegr a, M. Nicolai, A. Okem, J. Petzold, B. Rama, N. M. Weyer (eds.)). available at: https://www.ipcc.ch/srocc/

IUCN (2021). Manual for the creation of Blue Carbon projects in Europe and the Mediterranean. Otero, M. (Ed)., p.19. available at: https://www.iucn.org/sites/dev/files/content/documents/2021/manualbluecarbon_eng_lr.pdf

Life Blue Natura (2021). Actions and objectives. available at: http://life-bluenatura.eu/en/the-project/actions-and-objectives/

Luisetti T., et al. (2019). Quantifying and valuing carbon flows and stores in coastal and shelf ecosystems in the UK. Ecosyst Serv. available at: https://www.sciencedirect.com/science/article/pii/S2212041618300536

Mazurek M., (2020). EcoAct lance Grove-FIT. available at: https://eco-act.com/fr/marche-du-carbone/ecoact-lance-grove-fit/

The Blue Carbon Initiative (2021). Mitigating Climate Change through Coastal Ecosystem Management. available at: https://www.thebluecarboninitiative.org/