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CIMEIRA SOBRE AÇÃO CLIMÁTICA – ELEMENTOS PARA APOIO À APRESENTAÇÃO DE PROPOSTA À COLIGAÇÃO “NATURE BASED SOLUTIONS” (NBS)

I. ENQUADRAMENTO

Estando em preparação no seio das Nações Unidas, a Cimeira sobre Ação Climática promovida pelo Secretário-Geral, que se realizará em 23 de setembro próximo, recebeu a DGPM uma mensagem eletrónica do Dr. Gonçalo Motta (Chefe da Divisão dos Oceanos, Ambiente, Energia e das Organizações Económicas, Técnicas e Científicas), da Direção-Geral de Política Externa, do Ministério dos Negócios Estrangeiros (MNE) sobre o assunto.

Na referida mensagem, informa-se que Portugal foi incluído na Coligação “Nature Based Solutions” (NBS), remete-se cópia do programa de trabalho da Coligação e pede-se a colaboração da DGPM, enquanto responsável pelas relações internacionais do Ministério do Mar, na apresentação de propostas.

Refere-se na mensagem em causa que “A Missão de Portugal junto das Nações Unidas em Nova Iorque participou na primeira reunião desta Coligação NBS na Missão Permanente da China onde estiveram presentes os co-líderes (China e Nova Zelândia) e representantes da Noruega, Costa Rica, Fiji, Tajiquistão e Portugal. Nesta reunião foi apresentado o cronograma de trabalho que se deverá prolongar até final de junho, culminando numa proposta com potencial impacto significativo na área da mitigação dos efeitos das alterações climáticas, bem como acautelar a capacidade de promover a aceleração da implementação da Agenda 2030 para o Desenvolvimento Sustentável”.

A referida Coligação NBS pretende “identificar iniciativas de ação, integrar e incluir boas práticas já existentes e compilar estudos de casos de qualidade”. Assim, com vista a apoiar a participação nacional nos trabalhos da Coligação NBS, o MNE vem solicitar a colaboração da DGPM na

apresentação de elementos relativos a propostas que “ilustrem o contributo das soluções baseadas na natureza para a preservação e restauração de florestas, ecossistemas terrestres e marinhos; conservação e restauração de áreas húmidas; tratamento abrangente da erosão do solo; prevenção da desertificação; corredores ecológicos e proteção da biodiversidade; agricultura e sistemas alimentares; regeneração dos ecossistemas do oceano e dos sistemas protegidos pela categoria “reserva natural” (parques nacionais)”.

De acordo com o programa de trabalhos da Coligação, as propostas devem ser apresentadas em língua inglesa, na forma de sumário (limite máximo de palavras: 1000) de acordo com a seguinte estrutura:

- i. Title/Heading
- ii. Context and rationale
- iii. An overview of the contribution
- iv. How the contribution leverages living natural systems as a solution to avert climate change?
- v. How might the contribution support both climate, mitigation and adaptation as well other important co-benefits and social, economic and environmental outcomes in coming years.
- vi. Which countries and organisations are involved in the contribution?
- vii. How have stakeholders (for example local communities, youth and indigenous peoples, where applicable) been consulted in developing the contribution?
- viii. Where can the contribution be put into action?
- ix. How the contribution will be delivered? How will different stakeholders be engaged in its implementation? What are the potential transformational impacts?
- x. Is the initiative contributing to other Climate Action Summit workstreams (industry transition; energy transition; climate finance and carbon pricing; infrastructure, cities and local action; resilience and adaptation; youth and citizen mobilization; social and political drivers; mitigation strategy)?

- xi. How does this contribution build upon examples of experience to date? How does the contribution link with different ongoing initiatives?
- xii. What are the mechanisms for funding (with specific emphasis on potential for partnerships)?
- xiii. What is the communication strategy?
- xiv. What are the details of proponents (indicating the degree of commitment among the countries and organizations that are named)?

Face ao exposto e tendo presente o enquadramento e os critérios apresentados no programa de trabalho da Coligação, apresenta-se seguidamente a proposta seleccionada, a qual segue a estrutura e forma propostas no programa de trabalhos.

II. PROPOSTA

- i. Title/Heading: [Seaforesting the world's seas!](#)
- ii. Context and rationale: [Seaforests are major natural carbon sinks that have been shrinking in several places of the world. This is worrisome not only because of the critical function these ecosystems perform in the carbon cycle and in fish production, but also because many of these ecosystems are also important biodiversity hotspots. This is especially true in places like the Portuguese coastline which has been an important refuge over the last glaciations and, thus, supports today a rare and ancient biodiversity. Along the Portuguese coastline many species from different taxa find their southern limit, while other have their northern limit, and this diversity has contributed to complex and biodiverse trophic networks that play an important role as biodiversity sources and climate regulators. The strategic goal of this proposal is threefold: to protect coastal and marine seaforests; to restore degraded coastal and marine ecosystems through the translocation of seaweeds which may act as the propulsor of natural recovery; and to test](#)

- management regimes that may contribute to greater knowledge of ecosystems' functioning and best practice guidelines.
- iii. **An overview of the contribution:** In the first phase of this proposal the aim is to produce some macroalgae species in the lab, with innovative methodologies based in aquaculture techniques, and to transplant the algae individuals to natural habitats along the Portuguese coast. In a second phase, this approach shall be used to restore natural habitats in other places of the world that have also undergone biodiversity loss or a decline of seaforest distribution area. The proposal also focuses on seaforests' protection and awareness-raising.
 - iv. **How the contribution leverages living natural systems as a solution to avert climate change?** The restoration of natural seagrass and macroalgal habitats has the potential to contribute to the mitigation of climate change, not only by strengthening the coastline natural barriers against sea storms, but especially through the carbon fixation which will be increased by more densely seaweed prairies and kelp forests, and ultimately contribute to reduce the risk of sea level rise. The idea is to scale-up the results of previous projects developed along the Portuguese coastline (i.e. Biomares) and test new aquaculture technologies and management approaches that may in the future be scaled-up and replicated in other places of the world.
 - v. **How might the contribution support both climate, mitigation and adaptation as well other important co-benefits and social, economic and environmental outcomes in coming years.** The focus of the proposal is the restoration of natural habitats that have recently diminished either in area or in species richness, contributing to biodiversity conservation, to carbon fixation and to coastline protection, ultimately resulting in the mitigation of climate change effects. Moreover, important social and economic benefits are expected not only from direct jobs and businesses that will be created by the initiative and from the optimization of aquaculture and blue biotechnology, but especially through the protection and restoration of economically important habitats and species that are the basis of relevant socio-

economic activities such as fisheries and tourism. Additional benefits such as the promotion of natural capital, ecosystems' monitoring and environmental awareness are also expected since the proposal will also have a monitoring component and a socio-educational approach based on ocean literacy initiatives already in place, such as the Blue School programme.

- vi. Which countries and organizations are involved in the contribution? Portugal and Norway. The first phase of this proposal might begin its implementation through the project “SeaForest Portugal”, which is currently awaiting for the final financing decision from the Blue Fund, a Portuguese financial mechanism for the ocean economy that launched a call focused on the monitoring and protection of the marine environment. The project “SeaForest Portugal” will be coordinated by a start-up established in Portugal (Casulo), which will work with several Portuguese research centres: CCMAR (Centre for Marine Sciences - University of Algarve), CIIMAR (Interdisciplinary Centre for Marine and Environmental Research - University of Porto), MARE-IPL (Marine and Environmental Sciences Centre - Polytechnic Institute of Leiria), MARE-CIEMAR (Marine Sciences Lab - University of Évora), IMAR (University of the Azores) and the University of Madeira. Non-funded supporters include The Nature Conservancy (TNC), Seaweed Energy solutions (SES), the Norwegian Institute for Water Research (NIVA), the Portuguese Institute for Nature Conservation and Forestry (ICNF) and the Portuguese Institute for Sea and Atmosphere (IPMA). More info about this project may be find at: <http://seaforester.org> .
- vii. How have stakeholders (for example local communities, youth and indigenous peoples, where applicable) been consulted in developing the contribution? Relevant stakeholders will be involved in the selection of the areas and in the discussion of possible management options.

- viii. Where can the contribution be put into action? The idea is to start in Portugal (first phase) and then select other places in the world facing the same pressures and threats. The project “SeaForest Portugal”, which will probably become the first phase of this initiative, will test efficient methods for the recovery of populations of 4 native kelp species (large brown macroalgae) in 4 different regions in the Portuguese coastline: the coastline from Esposende to Viana (North of Portugal), Peniche (Centre), Sines and Sagres (SW Portugal).
- ix. How the contribution will be delivered? How will different stakeholders be engaged in its implementation? What are the potential transformational impacts? The project “SeaForest Portugal” will focus mainly, on the restoration of kelp forests in 4 different regions of continental Portugal. Casulo will coordinate; CCMAR and CIIMAR will participate in all the tasks (cultivation, transplants, monitoring and outreach); MARE-IPL and MARE-CIEMAR will participate in transplanting, surveying and citizen science outreach. All partners will develop ocean literacy activities linked with strategic mapping of the marine forests of *Cystoseira* spp. The project “SeaForest Portugal” aims to develop techniques that stimulate the recovery of receding kelp ecosystems. This project will also contribute knowledge and technical skills for the possible future planting of marine forests of brown algae to help mitigate climate change, ocean acidification and the loss of ecosystem services, to promote conservation and to create a healthier ecosystem. At a large scale, seaforestation is a first step to provide new and vast blue carbon sinks and at the same time provide bioremediation of excess nutrients and habitat for many marine organisms, some of commercial importance with benefit to fisheries.
- x. Is the initiative contributing to other Climate Action Summit workstreams (industry transition; energy transition; climate finance and carbon pricing; infrastructure, cities and local action; resilience and adaptation; youth and citizen mobilization; social and political drivers; mitigation strategy)? By now, this initiative is not involved in any workstream listed.

- xi. How does this contribution build upon examples of experience to date? How does the contribution link with different ongoing initiatives? This project has been inspired by the results of the program Findkelp and marineforests.com which promote mapping of kelp and macroalgae forests of Portugal using a citizen-science approach and also from the project Biomares that has been implemented in the Arrábida Marine Park (2007 – 2011) with the aim of restoring and managing the biodiversity of the marine park, including the restoration of seagrass prairies.
- xii. What are the mechanisms for funding (with specific emphasis on potential for partnerships)? This proposal will be developed by projects, such as the “SeaForest Portugal”. Such projects may benefit from the Blue Fund, a national fund for the blue economy, which may be cross-used with other funding sources, such as the European Economic Area Financial Mechanism (EEA Grants) Blue Growth Programme, and Programmes under implementation resulting from the Partnership Agreement between Portugal and the European Commission, labelled as 'Portugal 2020'.
- xiii. What is the communication strategy? The communication strategy of our proposal is focused on raising awareness towards the importance of protecting and sustainably managing seaforests. It follows an ocean literacy approach, which promotes the development of meaningful links between actors with different roles (i.e. scientists, policy-makers, entrepreneurs and students) and across generations.
- xiv. What are the details of proponents (indicating the degree of commitment among the countries and organizations that are named)?