

European

MARINE BOARD

Advancing Seas & Ocean Science

Feedback from the European Marine Board to the European Commission's Call for Evidence on [Social resilience – managing the EU's climate risks](#). (December 2023)

The European Marine Board (and its Secretariat) hereby want to thank the European Commission for its consultation on Social resilience – managing the EU's climate risks. We also wish to make you aware of the outcomes of two of our newest documents that are of relevance to this consultation. These documents were written by eminent European natural and social scientists and reviewed by external and internal reviewers. First our Position Paper on "[Building Coastal Resilience in Europe](#)", presents key policy, scientific and community recommendations on how to build coastal resilience from a socio-ecological perspective, and enhance capacity to cope with impacts from climate change and other pressures. It includes chapters on the concepts and frameworks to assess coastal resilience; pressures and impacts on the coast; tools, barriers, enablers to build coastal resilience; European case-studies; and future challenges and recommendations. It highlights the science and policy needs required for building coastal resilience in Europe including: the need for a systems approach to coastal management; including nature and people in the design process; building adaptive capacity at all scales of governance; reflecting the value of natural capital; and following a best practice 6 step approach to building coastal resilience. The Position Paper also makes the following scientific recommendations: establishing integrated transdisciplinary research on coastal social-ecological systems; developing sufficient observational, monitoring and data capacity; developing and operationalizing standardised coastal resilience indicators for Europe; improving model prediction capacity; and investing in research on Nature-based Solutions and hybrid solutions on land and at sea. Finally, it provides community recommendations, including to: obtain systematic natural and social scientific knowledge that is useful to individual communities and share this among all interested parties with clear messages; develop and adhere to coherent national coastal plans to coordinate community actions with the regional priorities of local authorities; co-design citizen science initiatives that support communities to collect and understand coastal data and resilience issues; and enhance the adaptive capacity of local communities.

The second document is a Policy Brief on "[Blue Carbon: Challenges and opportunities to mitigate the climate and biodiversity crises](#)", which describes: what Blue Carbon is; the benefits of Blue Carbon

ecosystems; the role of the Ocean in the carbon cycle; examples of Blue Carbon ecosystems in Europe; uncertainties and questions yet to be resolved; and recommendations. The recommendations include to: reduce uncertainties about the amount of carbon removed and stored by Blue Carbon ecosystems; quantify the possible production of methane and nitrous oxide that might arise from coastal restoration efforts over the long term, and impact on greenhouse gas emissions; understand the dynamics of offshore carbon stocks and sequestration, and the possible impact of human activities, such as trawling and deep-sea mining; create tailored monitoring and observations of carbon (stocks, fluxes, process rates temporal and spatial scales) to improve our understanding of the global Ocean carbon budget, the biological carbon pumps (BCP, CCP) and sedimentary carbon storage; support sustained observations to better parameterize processes (e.g. remineralisation, fragmentation, sinking) in carbon cycle models; and promote multi-disciplinary collaboration between environmental scientists, social scientists and engineers to ensure the integration of Blue Carbon solutions.

We hereby hope that you find this information useful and would be happy to support you in any information you may need.