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Area-based Management Tools (ABMTs) for cross-border biodiversity and ecosystem protection in the Otranto Strait (Mediterranean Sea)

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The Strait of Otranto, spanning 72 km between Albania and Italy, links the Southern Adriatic and Northern Ionian Seas. Historically, it has been crucial in regulating maritime traffic between the Mediterranean and the Adriatic. Today, it is recognized as an area of high ecological value, hosting diverse marine habitats and species that benefit from multiple layers of protection. These include Marine Protected Areas (MPAs), Natura 2000 and Emerald sites under the European Union and Bern Convention, National Parks, Specially Protected Areas of Mediterranean Importance (SPAMI) under the Barcelona Convention, Ecologically or Biologically Significant Areas (EBSAs) in the South Adriatic and Ionian Sea, and Cetacean Critical Habitats (CCH).

However, the Otranto region faces significant environmental challenges. Its complex and highly diverse ecosystems are under pressure from issues such as coastal erosion, flood risks, and the impact of maritime industries. Deep-sea trawling, marine litter accumulation, urbanization, and tourism further threaten the area's biodiversity and ecological stability. Offshore, deep-sea corals are impacted by trawling, while maritime traffic and fishing activities endanger marine megafauna. Along the Albanian coast, fishing activities pose challenges, compounded by pollution, debris, and overuse of protected areas. Meanwhile, the Italian coast faces threats to *Posidonia oceanica* meadows from tourism, fisheries, and pollution.

In order to explore options for mitigating risks in the Straight, a Feasibility Study was prepared to assess the potential for establishing Area-Based Management Tools (ABMTs) in the area. This study was carried out as part of the Coastal Area Management Programme (CAMP), under the implementation activities of the Protocol on Integrated Coastal Zone Management (ICZM) to the Barcelona Convention.

The study identified options for Albania and Italy to enhance the protection of existing natural

areas and establish new spatial management tools. The first option suggests both countries to use legal frameworks to implement ABMTs within or beyond their territorial seas on a case-by-case basis, as part of a flexible “single complex project area.” This approach supports the 30 x 30 conservation target under both the Kunming-Montreal CBD targets and the Post-2020 Barcelona Convention goals. The second option proposes advancing cooperation by embedding ABMTs within a permanent, adaptable framework, with expanded MPAs, Fisheries Restricted Areas (FRA) under the GFCM, SPAMI sites, and Particularly Sensitive Sea Areas (PSSA) under the IMO among the proposed tools.

Additionally, the study emphasizes Maritime Spatial Planning (MSP) as a means to strengthen cooperative efforts to protect biodiversity in the Strait. In line with an ecosystem-based approach, the study also recommended extending transboundary cooperation to Greece to enhance sustainable management of this shared marine area.

A story-map was developed to share study findings and aid implementation by stakeholders at various levels. The storytelling starts with an area overview, advancing to proposed options. The transboundary, multiscalar scope is visualized with automatic map zooms, while multisectoral activities are depicted through navigable sequence of pictograms, photos, animations and data sliders for protective zoning insights. A cohesive visual style and professional photography are expected to enhance the tool’s cultural and emotional engagement.