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TITLE: How does the cumulative impacts approach support Maritime Spatial Planning?

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ABSTRACT:

Maritime Spatial Planning (MSP) needs to incorporate spatial information on human impacts. As human activities and uses increase in marine and coastal waters around the world, pressures in ecosystems are also increasing, leading to multiple adverse effects on different species and habitats. The European Directive on MSP aims to achieve an integrated approach to marine governance, whilst securing and maintaining the healthy status of marine and coastal waters, in accordance with the Marine Strategy Framework Directive. The latter requires Member States to develop assessments not only on pressures and impacts, but also on the state of the marine environment and then take measures towards reaching a Good Environmental Status by 2020. The Portuguese Maritime Spatial Plan ? Plano de Ordenamento do Espaço Marítimo (POEM) was developed between 2009 and 2012. In 2014 a law establishing the Basis for the Spatial Planning and Management of the National Maritime Space was enacted and in 2015 the framework for the elaboration of a new national Maritime Spatial Plan, named Situation Plan, was established. Portugal will face, in the next five years, the challenge of planning and managing its marine space, whilst promoting its sustainable use and protection. This study adapted a cumulative effects assessment model to understand how the impacts from multiple threats affect the marine and coastal ecosystems and, how this information can be used to improve the management process. Information was gathered on intensity and distribution of activities and uses for the Portuguese continental subdivision marine area, quantified and mapped their cumulative impacts in marine ecosystems, and overlapped with the POEM. Results show that impacts are spreading from the coast up to the Contiguous Zone. Higher scores appear in Transitional and Coastal Waters in the north (Viana do Castelo/Figueira da Foz), centre (Peniche/Setúbal) and south (Lagos/Faro). In some areas with higher ranks, statutes of nature conservation are already in place, but potential activities may still occur on top of existing ones. This study shows that the adapted model is a helpful tool to clarify ocean planning, identify areas of potential conflicts among users and support the decision making process.

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