Clarifying the limits of European coastal waters

Researchers attempting to establish the limits of coastal waters in Europe have found that national declarations of coastal waters contain a number of inconsistencies regarding the definition from the Water Framework Directive. In particular, the national declarations overestimated the area of coastal waters by almost 12% overall, which could affect the results of ecological assessments required by several major EU environmental policies.

A consistent and accurate definition of ‘coastal waters’ would help researchers and policymakers carry out the ecological assessment of national marine environments required by the Water Framework Directive (WFD)\(^1\) and the Marine Strategy Framework Directive (MSFD)\(^2\). The current definition\(^3\) of coastal waters from the Water Framework Directive has been used by national governments to describe their coastal waters. However, this definition relies on 1.) national maritime boundaries, which can be controversial and which may not be internationally agreed; and 2.) the delimitation of ‘transitional waters’, which is itself unclear.

The study found that inconsistencies in national declarations of coastal waters in Europe were caused by two reasons. Either the definition of ‘coastal waters’ had been misinterpreted, or, in some cases, its limits had been deliberately changed by the nations involved. To address this, the JRC\(^4\) researchers, who were partially supported by the EU PEGASO project\(^5\), have developed a single consistent delimitation for Europe. They also recommend that national alterations are analysed, justified, and, where appropriate, transparently accepted or rejected.

The researchers first estimated the extent of European coastal waters by analysing six geographic datasets that contained information on maritime boundaries, river basins, shorelines and transitional waters. They used this information to remove any uncertainty from the location of the baseline that defines European maritime boundaries. They also used it to better define transitional waters and, where necessary, add these areas to the coastal waters already identified. Their findings revealed that European coastal waters covered an area of 553,817km\(^2\) (coastal water belonging to EU Member States covered an area of 340,524km\(^2\)). In contrast, the national declarations covered an area 12% larger. The greatest discrepancies between national declarations and the researchers’ results were seen for Germany, Belgium and Slovenia, and seem to have been caused by misinterpretations of the WFD definition of coastal waters. The reasons for other differences, such as those seen for the UK, France and Latvia, were harder to assess, and included national modifications to the WFD definition.

The researchers recommend that such national modifications are removed unless they can be justified, and that the European Commission carries out a full consultation on such exemptions. The researchers also noted that some of the national modifications could be of use to other nations, once their potential impact on the ecological assessment of the marine environment has been established. The results also suggest that the WFD definition of coastal waters should be modified in certain situations to take account of geographical and ecological factors that could affect ecological assessments, such as where coastal waters completely surround marine waters in bays and archipelagos. In these cases, it may be necessary to redefine the limit of coastal waters using, for example, natural boundaries.

Finally, the researchers suggest that the European Commission should establish a clear distinction between those areas covered by the ecological assessment for the WFD and those covered by the MSFD to allow for more accurate and comparable ecological and socio-economic assessments in future.

5. PEGASO (The People for Ecosystem-based Governance in Assessing Sustainable development of Ocean and coast) is supported by the European Community’s Seventh Framework Programme. See: [www.pegasoproject.eu](http://www.pegasoproject.eu)


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