Theme session O

Marine spatial planning and fisheries: A stock-take on approaches, examples and future needs

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Summary

Marine spatial planning (MSP) is central for the implementation of an integrated management of multiple human activities at sea, their combined affects on marine ecosystems and the services they provide. MSP is regarded as a means to solve inter-sectorial and cross-border conflicts over maritime space as it allows managing human activities across various temporal and spatial scales in the marine environment. The EU MSP directive encourages blue growth and provides scope to synchronize with national priorities for the sustainable use of the marine environment. At the same time, the EU Marine Strategy Framework Directive (MSFD) requires member states to achieve "good environmental status". Indirectly the MSFD suggests MSP via spatial distribution controls of activities while the upcoming MSP directive makes provisions to support, inter alia, the MSFD via MSP by demanding an ecosystem-based approach. While the general concept of MSP is increasingly implemented worldwide, key issues such as the participation of the fishery sector in MSP processes and the integration of fisheries requirements in spatial planning remain very challenging in practice. For instance while a focus on the priority areas for fisheries is of great importance in MSP it is of equal importance to explicitly consider ecological components and important fish habitats that serve as the foundation for viable fisheries in the first place. Thus divergent economic growth and conservation perspectives frequently hamper the implementation of balanced cross-sector management approaches. Policy oriented research is confronted with huge challenges while significant changes in science priorities are required to provide the science base needed to underpin cross sector-management.

Therefore this session was intended to scope for approaches and examples allowing evaluating the potentials and limits for the integration of fisheries in MSP as well as the future requirements with regard to e.g. governance frameworks, data and tools.

The oral and poster presentations within the session could be categorized in three themes with regard to the key issues addressed:

1) Prediction of productive and essential areas for fisheries and their consideration in MSP

2) Trade-off analysis of spatial planning scenarios

3) Experience and MSP examples integrating fishing sector needs

Theme one, on the prediction of productive and essential areas for fisheries and their consideration in MSP, was dealt with in considerable depth in this session. The presentations comprised different approaches to identify areas vital to sustain the prevailing fisheries. Here the usefulness of VMS data to identify principal areas for fishing has been discussed in detail. Studies from Denmark or the Philippines showed good examples of the integration of fishers's local knowledge in a GIS to map out

fishing areas to be used in a wider MSP processes. Thus the inclusion of sectorial knowledge of spatial requirements has been identified as a key point for a successful ecosystem based MSP process. In the ICES area ICES has a strong level of engagement with the fishing sector and could therefore play a leading role in the facilitation of the exchange of knowledge between science and fishing community.

From the presentations of theme two the emerging issue was the question on the appropriate tools to assess trade-offs of spatial planning scenarios? Tools comprised for instance the end-to-end ecosystem model Atlantis. The latter was found to be useful to identify general trends under a given scenario. Another promising approach was identified as the use of concept of environmental goods and services (GandS) to assess planning options. Advantages of the GandS approach are the clear link between overall planning objectives and related indicators which could be assessed in a common unit. The CORPORATES project used the ecosystem services concept in a qualitative manner to assess the affect of renewables. However, more empirical studies are needed to conclude on the usefulness in an actual decision-making process. The need of economic considerations of planning options has also been addressed when assessing for instance the co-location of offshore renewables and aquaculture or passive gear fisheries. Here we see a clear role for ICES to bring practitioners together for instance for a workshop on trade-off analysis of planning options to frame this topic more precisely.

The presentations under theme three illustrated recent developments in the integration of the fishing sector in MSP processes. Examples have been the Orkney Shellfish project, ScotMap and the GAP2 project. The latter addressed for instance the balance between the interests and needs between fishers and offshore wind developers. Also the new Belgian marine plan comprises clear spatial fisheries management measures. The experience and expertise which has been built-up in the research communities should be applied and used to inform managers and decision-makers. This might be a service that ICES could offer.