SESSION DESCRIPTION

ID: B1

Plural values of marine and coastal ecosystem services towards sustainable spatial planning and an inclusive governance of marine and coastal systems

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Abstract:

The marine and coastal social-ecological systems host a large amount of biological, genetic, functional and ecosystem diversity while offering the space for a multitude of interactions with society. Especially the areas on the interface between land and sea, such as coastal zones and deltas, represent a major environmental governance challenge, as over 90% of the population they concentrate relies on marine resources. This population is also vulnerable to sea level rise and degradation of these marine systems.

These multi-functional systems are subject to sectoral policies and planning schemes, while being areas of social conflicts under varying financial interests. European Union (EU) has proposed a new approach towards Sustainable Blue Economy, which targets simultaneously climate change mitigation through offshore energy production, a circular economy approach on the fisheries and shipping sector, while preserving coastal biodiversity and landscapes for the benefit of tourism and the economy. This multi-objective strategy is key to ensuring that multiple goals can be achieved, but at the same time its implementation is not straightforward as the research methods available to account for those goals are designed in a sectoral manner. Marine and coastal ecosystem services assessment can be key to ensure an integrated and

inclusive assessment of the plural values of such systems and provide information to policy and decision-making in an integrated way. However changing the current approaches is a difficult process, which includes changes in current public policies, public awareness and repeatedly producing results that support decisions.

Marine and coastal ecosystem services (MCES) research has evolved towards this direction over the last decade. From land-based adaptations and a greater focus on provisioning ecosystem services, it extended to developing marine-specific models, while addressing the broader range of ecosystem services including cultural and regulating ones. At the same time, simple spatial and quantitative tools, produce clear outputs that can be used by decision makers. However, such instruments and methods are required to be tested on the ground through a continuous user involvement. Research also unbundled the quantification and accounting of marine ecosystem services targeting not only the ecosystem service supply side, but also the flow, demand, and value. Still, while the notion of ES bundles and the multiple values of marine systems are well acknowledged in scientific literature, methodological and policy approaches on how to account for these as bundles are scarce. At the same time, approaches toward the inclusion of multiple values of marine and coastal systems, extending beyond the biophysical or economic value, to account for social and relational values are lacking. The scale of existing challenges calls for further research on methods and theoretical approaches that require integration of different disciplines (ecology, engineering, planning, economy) to detect risks and weaknesses of marine and coastal ecosystems.

The goal of this session is therefore dual: to explore methods and approaches towards the inclusion of the plural values of marine and coastal ecosystems; and ways of accounting for the plural values of these systems towards a more inclusive planning and governance.

We invite research teams who have been targeting the assessment of multiple, biophysical and social values of marine and coastal ecosystem services, to present their approaches, but also methods for including and involving society in their work. This session is a continuation of the work carried out by the Marine Biome Working group of ESP in cooperation with the Interreg Central Baltic project MAREA “From marine ecosystem accounting to integrated governance for sustainable planning of marine and coastal areas” and ERASMUS+ project Mare “Marine Coastal and Delta Sustainability for Southeast Asia”.

We seek for contributions and knowledge exchange with researchers or teams that focus on:

- Methods of plural valuation within the marine and coastal environment;
- Methods integrating biophysical modelling of ecosystem services with socio-cultural quantification and assessment in marine and coastal systems;
- The development of plural marine ecosystem services accounting framework(s);

- Approaches followed for inclusion of different societal groups with a special focus on civil society organizations and citizen science;
- Methods and development of decision support tools for sustainable management of marine and coastal ecosystems;
- Examples of marine ES assessments as solutions for sectoral integration in the marine and coastal zone.
- Examples of spatial planning instruments and evaluation of trade-offs generated by different planning and management options.

Goals and objectives of the session:

To exchange knowledge, experience and approaches on integrated and inclusive approaches for marine and coastal ecosystem services, with the ultimate goal to identify planning and management options for an inclusive and sustainable use of the marine and coastal areas.

Planned output / Deliverables:

The session foresees two different and practical outcomes, to be decided according to the interest generated among participants.

1) A joint publication on the best practices for integrated and inclusive assessment of ecosystem services.

2) Proposal of a book with International Publisher with full contributions from the presentations.

Session format:

A combination of presentations with discussion groups on emerging topics.

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group/National Network:

Biome Working Groups: BWG 1-Marine systems