

Policy Makers.

On the eve of a new EU Maritime Strategy, transnational commons, such as the Mediterranean and Black Sea (Southern European Seas, SES) are increasingly recognized as shared resources of outmost importance for the functioning of world societies and economies. It is beyond doubt, that a number of such shared resources are today in danger from uncontrolled and inefficient use.

Over the past century the population of these regions has expanded substantially. Coastal urbanization, industrialization and touristic exploitation, intensive agriculture, riverine and atmospheric inputs and fishing efforts are in fact only few of the many anthropogenic forcings which have exerted a progressively growing pressure on the Mediterranean and Black Sea environment, and which now put its integrity at stake.

Meanwhile, fundamental changes have occurred in our understanding of the functions and values of marine ecosystems and these have prompted many recent international efforts to protect and sustainable use them.

Unfortunately, seas are notoriously complex and scientifically unexplored systems encompassing highly variable biotic and abiotic components. Thanks to joint efforts with natural scientists, our 'production functions' linking natural and engineering processes with economic goods and services are today far better understood. In spite of scientific advancement though, the gaps in our knowledge remain considerable. A better understanding of ecosystem dynamics at both the quantitative (biochemical cycling) as well as the qualitative (ecological structure of food webs) levels without artificial divisions between them is needed.

Integrated approaches to environmental planning with proper stakeholder involvement offer a possible way forward. Such an approach needs to facilitate communication within multidisciplinary research teams; it needs to recognize the functional continuity from watersheds to the coasts to the open sea, thereby helping to locate the scale of intervention less on the base of traditional jurisdictions and more towards appropriate ecosystem scales. Last but not least, it must encompass participatory management schemes which promise a substantive change in the exploitation of local knowledge.