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# Management of Environmental Quality

*An International Journal*

## **Marine environmental quality**

Guest Editors: Ulisses M. Azeiteiro,  
Fátima Alves, Ana Pinto de Moura and  
Miguel Â. Pardal



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## Guest Editors

Ulisses M. Azeiteiro, Fátima Alves, Ana Pinto de Moura and Miguel Â. Pardal

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C O P E COMMITTEE ON PUBLICATION ETHICS

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Marine and coastal environments play a critical role in sustaining life. Covering nearly three-quarters of the earth's surface, marine and coastal waters are the earth's largest and most vital environment, influencing global energy cycles, biological, economical and sociocultural processes.

Marine environmental quality is related to the functioning of marine ecosystems. The understanding of these relationships provides a foundation for management and policy recommendations in order to achieve sustainability. Good environmental quality, sustainability and marine and coastal areas governance is essential for sustaining coastal and marine ecosystems, commercial and recreational fisheries, economic growth and quality of life in coastal communities.

Given the complexity of existing problems and trends that are threatening the marine and coastal areas, the following special issue is neither thematically or geographically complete. It represents only an overview of some current thematic issues in marine and coastal areas environmental quality and sustainability. A total of eight peer-reviewed papers cover the themes of "marine policies," "governance," "sociocultural and education topics," "human occupation" of coastal zones, "sedimentary environmental quality," "recruitment variability" and "sustainable fisheries management," "sustainable aquaculture development" through improvements in education, training capacity and "perceptions about the benefits and risks of fish consumption."

The first paper, entitled "Transboundary MPAs: a challenge for the twenty-first century," by José Angelo Guerreiro da Silva, Raquel Curto Fernandes e Castro Ribeiro, Ana de Carvalho Cameira Mocinho Viras and Catarina Bentes Silva Grilo, addresses the options and trends for countries to develop transboundary cooperation through marine-protected areas (MPAs). It was based on several case studies, focussing on political, governance and financing frameworks.

In the second paper "Participatory issues in fisheries governance in Europe," Cristina Pita, Ratana Chuenpagdee and Graham J. Pierce describe the fisheries governance system in the European Union (EU) and review fishermen's participation in the decision-making process in the EU. The paper provides a review of participation in the EU decision-making process. The results could give management bodies an insight into the failures of participation and point to possible ways forward.

Sara C. Carvalho, Fátima Alves, Ulisses M. Azeiteiro and Pablo A. Meira-Carrea in "Sociocultural and educational factors in the sustainability of coastal zones – the *Prestige* oil spill in Galicia, ten years later," discuss how environmental threats of immediate risk in areas such as coastal zones have aroused new trends of citizenship and participatory democracy. This third paper intends to analyze elements within those trends, such as environmental culture, sociopolitical context and dynamics of social associative movement and integration of local knowledge. It also aims to contribute to an overview of the opportunities and barriers found in considering sociocultural and educational challenges in coastal zones. The paper provides specific highlights on factors that have empirically contributed to participatory sustainability of coastal zones, integrating three dimensions of citizenship: education, society's dynamics and culture.

The fourth paper, "Sustainable coastal zones? A matter of 'sense and sensibility': comparative analysis between Aveiro Lagoon (Portugal) and Sepetiba Bay (Brazil)," by Maria Rosário Bastos, João Alveirinho Dias, Ana Cristina Dias, Silvia Dias Pereira, Nanci Vieira de Oliveira and Maria Antonieta Rodrigues, considers the impact of the human occupation in the coastal zone. The paper provides an interdisciplinary approach, allowing a better understanding of the evolution of these two systems, discussing the causes and consequences of human activities in both coastal areas.

A special issue about marine environmental quality should always address the assessment of sediment quality with an updated discussion of the methodologies for environmental assessments of contaminated estuarine sediments. Therefore, the fifth paper "Considerations for integrative environmental assessments of contaminated estuarine sediments," by Sandra Sofia Caeiro, Tomas Angel Del Valls and Peter Michael Chapman, discusses integrative environmental assessments applicable to estuarine sediments, including the advantages and limitations of different lines of evidence that could form part of such assessments and their application to ecosystem services.

The sixth paper "Estuarine nurseries for marine fish: connecting recruitment variability with sustainable fisheries management," by Filipe Martinho, Henrique N. Cabral, Ulisses M. Azeiteiro and Miguel A. Pardal, provide a comprehensive overview of the causes and consequences of recruitment variability in marine fish, contributing to ecosystem-based management strategies of estuarine and coastal areas. This paper is a valuable tool for marine researchers and stakeholders, since it summarizes some of the most important processes that drive recruitment variability in marine fish, and how this information can be used for establishing sustainable ecosystem management programs.

The seventh paper, entitled "Promoting sustainable aquaculture: building the capacity of local institutions and online teaching (elearning)," by Sónia Seixas, John Bostock and Margaret Eleftheriou, reviews a number of recent initiatives to promote sustainable aquaculture development through improvements on education and training capacity, and innovations in the use of eLearning. There is substantial social benefit in promoting an innovative and sustainable aquaculture industry that contributes positively to food security and human health. Continued professional development involving eLearning and other innovative approaches can make an important contribution throughout the sector.

Last but not least, the eighth paper "A comparative evaluation of women's perceptions and importance of sustainability in fish consumption: an exploratory study among light consumers with different education levels," by Ana Pinto de Moura, Luís M. Cunha, M. Castro Cunha and Rui Costa Lima, explores women's perceptions about the benefits and risks of fish consumption, while exploring differences on their views about wild and farmed fish, considering light fish consumers. Attitudes of light fish users/consumers are partially similar to heavy fish users/consumers considering farmed fish production, with the search for convenience being driven by either perceived lack of time or perceived lack of cookery skills to prepare fish based meals.

This special issue represents a contribution toward a more sound knowledge on marine environmental quality and sustainability practices. It will be useful as a tool for researchers interested in marine and coastal zone environmental quality and sustainability-related topics, as well as for different stakeholders, helping them to make better informed science-based decisions regarding their future sustainability strategies.

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Finally, we would like to take the opportunity of acknowledging all those who have contributed toward this special issue of *Management of Environmental Quality: An International Journal*. We thank the reviewers who have taken time to provide timely feedback to the authors, thereby helping the authors to improve their manuscripts.

The reviewing was a double-blind reviewing process. We warmly thank all authors who submitted their manuscripts for consideration of inclusion in this special issue of the *Management of Environmental Quality: An International Journal*.

**Ulisses M Azeiteiro, Fátima Alves, Ana Pinto de Moura and  
Miguel Â. Pardal**  
*Guest Editors*