

O43.5**An Integrated Approach to Coastal and Marine Management Analysis and Solutions**Robert Nicholls¹, Julie Bremner², Kerry Turner¹¹University of East Anglia, UK. ²CEFAS, UK**Abstract**

The concept of integrated (multidisciplinary) coastal zone management (ICZM) has been proposed for some decades, but the underpinning science knowledge and data inventories, together with practical applications, have been slower to evolve. One of ICZM's key principles 'adaptive management' is a flexible 'learning by doing' approach. Here we propose an approach that builds on the ICZM heritage and core principles, and uses natural capital and ecosystem services concepts, together with additional features of pluralism and precaution. Within this transdisciplinary approach, integration is required across four disciplines (natural and social sciences, economics, arts) as well as engaging with stakeholder perspectives. Our approach utilises the Balance Sheet Approach (BSA) and comprises both a process and a set of tools. The BSA process entails contextualisation of the spatial scale, the institutional environment and the social dimensions of a natural capital problem. This process also identifies the appropriate questions and tools and how to use them to analyse the problem and find solutions. The BSA has previously been applied successfully in the Baltic but the proposed approach here involves a much deeper and more informative analysis. It can incorporate and structure a range of existing models and evidence on coastal and marine resources. This evolves the BSA from a generic framework to a specific coastal-marine decision support system addressing problems in a specific location. This can include consideration of distributional issues and equity in the trade-offs that arise in 'wicked problems' such as coastal and marine management, where existing sector-specific techniques fail to provide whole-system perspectives. Hence, this approach integrates existing elements to produce holistic assessment and provide a framework to reconcile the oft-disparate results from techniques applied independently of each other.

Keywords

Trade-off, Management, Integrated Assessment