

Charting Progress – an Integrated Assessment of the State of UK Seas

The peer review process

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In the UK no one lives more than 125 km from the sea. As an island based community and a major trading nation with a proud maritime history, the sea features prominently in the British way of life. Many of our great national heroes are seafarers and explorer scientists. The systematic study of the seas and oceans was developed in the UK in the mid-nineteenth century and the seas around the UK remain probably the best studied in the world. The sea has therefore played an important role in forming our nation and our national psyche. The sea and marine environment have also been exploited for centuries. They have been sources of food, oil and gas, sand and gravel and now renewable energy, while simultaneously being repositories for wastes; sewage, litter, chemical residues. Almost 75% of the UK area of economic activity is sea! The sustainability of maritime activities, from food gathering to waste treatment and assimilation, is dependant on a healthy marine ecosystem.

The last 40 years has seen a massive increase in our understanding of the extent to which man's activities can impact on the health of the sea and in turn impact on its ability to meet all of our needs and desires. This realisation initially lead to a series of measures each designed to manage one aspect of human impact; pollution, sewage disposal, shellfish quality. However, the seas and ocean are a system with strong linkages between the different components. This is reflected in our commitment to, in future, managing human activities using an ecosystem approach. This recognises the linkages between different human activities, between the physical and biological parts of the environment and between the different biological components. It was against this background that Defra commissioned a review of the current state of the UK's seas.

Given the vast area, the diversity of environments, the long history of study and mass of information available, such an undertaking was ambitious. In order to achieve the review in a reasonable time frame a number of difficult decisions, about the scope of the review and the means of achieving it, had to be made. However, the guiding principle was that the review must be based on the best available information and the conclusion reached must be evidence based. To help assure the scientific quality of the evidence base, Defra instigated a peer review process. A number of the leading UK marine scientists, who had not been directly involved in compiling the reports,

provided extensive feedback to Defra and the authors of the four sector reports (Marine Processes and Climate; Marine Habitats and Species; Fisheries; and Marine Environmental Quality) and the Integrated Regional Assessment. The authors were able to use this feedback to significantly improve the scientific quality of the final reports although time and logistical constraints meant that some of the recommendations from the peer reviewers could not be acted upon. However, in such cases the value of the feedback was acknowledged and has been incorporated into the document in the form of recommendations for ways in which a subsequent report on the State of Seas could improve on this first one.

As co-ordinating peer reviewer I would like to publicly acknowledge the support to the project, and the quantity and quality of the work, provided by the team of anonymous peer reviewers. I would also like to thank the team at Defra and the report authors for responding so positively to the process. As a result, I am confident that the State of the Seas Report is a scientifically robust, evidence based account of the current state of the marine environment around the UK.

This report will become a defining point in the development of integrated, ecosystem based, management regime for the UK's marine environment. As objective based environmental management is developed and made operational, this report will be a key source of information as to current state and recent trends in key aspects of the marine ecosystem and so inform the debate as to what the objectives should be. In fully developing the management regime, this report will need to be supplemented by information on drivers of change and the responsiveness of ecosystem attributes to management measures. The report identifies these key areas for further specific actions.

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