

5. THE WIDER SEA

Key features and interests

80. The area of the north-east Atlantic within national jurisdictions and between the Bay of Biscay and the Faroes, extends to some 2.2 million sq km (866,000 sq miles).
81. Of this area, the seas falling within the jurisdiction of the United Kingdom extend over 867,000 sq km (335,000 sq miles) - an area three and a half times its land area. These seas vary in depth from the shallow waters of the southern North Sea, down to over 3,000m in an area 200 miles west of Rockall. They range in climate from the warm temperate waters of the south-west approaches, to bottom sub-arctic waters between the Faroes and Norway where the water temperature rarely exceeds 0°C.
82. The biodiversity of the seas varies from populations of species which have relatively low mobility to those which are highly mobile. An example of a highly mobile species found in the Irish Sea is the Manx shearwater which breeds on the islands off the coasts of Pembrokeshire, Co. Down and Co. Waterford and overwinters off the coasts of northern Argentina and southern Brazil. Map 7 shows the summer distribution of Manx shearwater in British and Irish waters. Many species of fish, seabirds and cetaceans are migratory or highly mobile, with individuals seasonally or periodically traversing hundreds of kilometres.
83. The distribution of many marine species is determined by a range of geophysical and hydrographical parameters as well as biological interactions. At the scale of the north-east Atlantic, the main factors which influence the character of marine ecosystems are temperature, depth and currents. Superimposed on these are other important factors such as topography, substratum type, salinity and exposure. JNCC, as part of its contribution to the work of the Review of Marine Nature Conservation, has identified a number of biogeographically determined 'Regional Seas' using, primarily, the factors of temperature, depth and currents. These Regional Seas have been identified for UK waters, but overlap the waters of neighbouring countries; they are shown in Map 8.
84. The seas are also key to the economy and quality of life of countries bordering the Regional Seas, through their contribution to tourism and recreation, primary energy supplies, defence, ship-borne trade and passenger transport, fishing, mariculture and marine aggregates. The total contribution to the UK economy of marine-related economic sectors was calculated by Pugh and Skinner (2002) to be £69 billion (€99 billion). The largest of these marine sectors is the oil and gas industry with annual revenues of some £23 billion (€33 billion), with 'seaside' tourism contributing an estimated £17 billion (€24 billion), the Royal Navy £6.7 billion (€9.6 billion) and ports and shipping some £1.7 billion (€2.4 billion). Other important contributors to the economy are sea fisheries, £0.55 billion (€0.78 billion), mariculture, £0.35 billion (€0.5 billion), and marine aggregates, £0.13 billion (€0.19 billion). However, this economic and social activity can have a significant impact on marine biodiversity and the general health of marine ecosystems, as can land-based and airborne pollution (OSPAR Commission, 2000; Frid *et al.*, 2003). In consequence, there is a need to ensure it is regulated appropriately and effectively.

Legislative controls

85. **UNCLOS:** The regulation of human activity in the UK's seas and adjacent waters is heavily influenced by international law. The UN Convention on the Law of the Sea (UNCLOS) provides a comprehensive framework for the regulation of all uses of the oceans. The Convention entered into force in 1994, with the UK acceding in 1997. It provides for the innocent passage by ships of all States through the territorial sea of a State. However, passage is only innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. If a State engages in fishing activities in the territorial sea of another State, passage is considered prejudicial to the

- interests of the coastal State and is no longer innocent passage. UNCLOS also provides that any act of wilful and serious pollution contrary to the Convention is also not compatible with the exercise of innocent passage.
86. **Shipping:** The regulation of international shipping, particularly with respect to safety, through the development of international standards, is the responsibility of the UN International Maritime Organisation (IMO), while the issue of pollution from ships is covered by the International Convention for the Prevention of Pollution from ships (MARPOL). Effect is given to the standards and requirements of these international fora through a range of mechanisms, including EC legislation and national law.
 87. **Fisheries:** The management of fisheries within all waters of EU Member States is governed by the EU Common Fisheries Policy (CFP). The CFP is underpinned by the principle of non-discrimination between Member States, with the basic precept of 'equal access'. However, waters out to 6 nautical miles from baseline may only be fished by vessels registered in the territorial state. Between 6 and 12n miles other Member States with historic rights also have access, although the recent CFP reforms now provide for more executive control for the territorial state within this zone. Beyond 12n miles, access to vessels from other Member States is limited, based on historic rights, and with non-member countries by reciprocal agreements with the EU. The CFP seeks to manage stocks of fish in EU waters principally by implementing catch quota management measures, by setting agreed annual Total Allowable Catches for particular stocks of commercial fish and by means of various technical conservation measures, including minimum landing sizes, fishing gear restrictions and closed areas. In offshore waters, the CFP is regulated through EC Regulations; inshore, it is regulated primarily through national legislation.
 88. **Development and water quality:** Major developments in UK waters will be subject to EC legislation on environmental assessment and strategic environmental assessment. Water quality issues are covered by the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), and a range of water quality standards are set down in a number of EC Directives. Nature conservation below low water mark and in inshore waters is partly covered by UK domestic legislation, and partly by legislation implementing the EC Habitats and Birds Directives, which also apply to offshore areas within the jurisdiction of Member States (although the UK has not yet transposed the Directives into national legislation for offshore waters).
 89. It will be seen from the above, that the regulation of shipping, fishing, major developments, water quality and nature conservation in north-east Atlantic waters is determined or influenced by international Conventions and institutions, and by European Union legislation. Modification of such over-arching regulation, therefore, is at the 'Wider Sea' scale through agreement achieved within the UN fora, OSPAR and the European Union.
 90. **Ecosystem Approach:** A concept gaining increasing international momentum is the Ecosystem Approach of which one of the better definitions is that set out in the Report by the US Interagency Ecosystem Management Task Force (1995), which described the Ecosystem Approach as: 'a method for sustaining or restoring natural systems and their functions and values. It is goal driven, and based on a collaboratively-developed vision of devised future condition that integrates ecological, economic and social factors. It is applied within a geographic framework defined primarily by ecological boundaries.'
 91. The Ecosystem Approach is now seen as an underpinning philosophy of the Convention on Biological Diversity. It was included in the Declaration of Intent at the World Summit on Sustainable Development (United Nations, 2002), and is included in the developing EU marine thematic strategy, and in the UK's developing marine strategy (Defra, 2002a). The Convention on Biological Diversity has adopted 12 Principles for applying the Ecosystem Approach in practice (Convention on Biological Diversity, 2000).

Discussion

92. A key Principle of the Ecosystem Approach is the avoidance of financial incentives and subsidies which have an adverse impact on ecosystems. Financial incentives and subsidies are normally applied either to stimulate the development of a particular human activity in an innovative way and/or to support an existing human activity where it might otherwise decline. In both cases, the purpose of the financial support given is to stimulate the economy and support local communities. An example of an adverse incentive has been the use of EC funds to increase the efficiency of the European Union's fishing industry. The result has been the over-exploitation of many fish stocks to a degree which is highly deleterious both to sustainable fishing and to the environment. Application of the Ecosystem Approach would mean the re-direction of these incentives to promote the restoration of fish stocks to optimal levels of yield, while stimulating the development of additional, sustainable, uses of the marine environment.
93. In connection with shipping, there are two current aspects of environmental concern at the 'Wider Sea' scale. The first relates to the need to avoid shipping accidents and the polluting consequences of such accidents. Currently, safety standards employed in the international shipping of oil, chemicals and waste still fall below good current practice in matters of ship design, construction and maintenance, navigational advice to mariners and the resolution of language difficulties. The designation of Marine Environment High Risk Areas in the UK, and of Particularly Sensitive Sea Areas internationally, has been slow. The second aspect relates to the need to avoid the introduction of non-native marine species through the inappropriate discharge of ballast water, or as a result of their attachment to ships' hulls. IMO is currently in the process of finalising the Convention on the management of ballast water by ships to minimise the introduction of harmful or unwanted aquatic species. However, again, progress in implementing good practice has been slow. Dealing with the issue of organisms attaching to ships' hulls remains problematic.
94. Finally, an issue which needs to be addressed at the Wider Sea scale is that of monitoring the state, and changes in state, of the marine environment, and the relative impact of human activities. Defra is currently engaged in a process of co-ordinating and rationalising monitoring in UK waters to improve its effectiveness and efficiency (the UK Marine Monitoring Strategy). Such monitoring programmes need to address the requirement to assess the state of our seas. It could be expected that benefits would also accrue from greater international co-operation in relation to monitoring, including in the development of standards and the promotion of data sharing.

Recommendations

95. The following recommendations are made with respect to the 'Wider Sea':
- R8 To achieve successful application of the ecosystem approach, international and national policy and legislation should support, and not frustrate, the achievement of strategic goals for the marine environment. Incentives and subsidies which encourage or support unsustainable impacts on ecosystems should be avoided. For example, and in particular, efforts should continue to mitigate the adverse effects of EU fishing incentives and replace them by incentives which promote the restoration of fish stocks, support responsible fishing practice, and encourage the diversification into other, sustainable, uses of the marine environment.**
- R9 Action to co-ordinate and rationalise marine environmental monitoring, and the monitoring of human impacts on the environment, should be completed and extended. Monitoring programmes need to address the requirement to assess the state of our seas. Co-ordination of monitoring with adjacent countries through *inter alia* the development of agreed standards and of data sharing should also be pursued.**
96. Further recommendations relevant to the 'Wider Sea' are contained in Chapter 13 on Legislation, in Chapter 14 on Enforcement and in Chapter 15 on Governance.