

16. MARINE NATURE CONSERVATION FRAMEWORK

439. A key objective of the Pilot was to test the Regional Seas approach and, in particular, the draft framework for marine nature conservation (Laffoley *et al.*, 2000). The conclusion from the work of the Pilot is that such a framework is essential to assist in the development of marine policy at the national level and to support the delivery of international obligations. The draft framework was found to be essentially sound but that refinement is needed to the method of operation of its principal elements. This refinement is required both to enable the framework to be implemented in practice and also to set it within the wider context of sustainable development. This Chapter firstly comments on the main components of the draft framework in the light of the work of the Pilot, and, secondly, sets out a refined framework informed by the Pilot's experience.

Experience of the Pilot in relation to the draft framework

440. The Pilot agrees that the 'nested scale' approach utilised in the draft framework is both appropriate and necessary. In relation to the Wider Sea, the Pilot agrees that the main issues to be addressed are improved international and national legislation, enforcement and monitoring. The Pilot considers, in addition, that a framework of strategic and sectoral planning for the sea as a means of delivering sustainable development is needed. Issues relating to long-term environmental change raised by the draft framework are considered by the Pilot as falling within an integrated programme of national marine monitoring.

441. The Pilot confirms the value of the Regional Sea concept as a crucial scale at which to implement sustainable development. The Pilot agrees that existing Regional Sea models used by ICES and OSPAR have limitations for marine nature conservation and for the implementation of sustainable development, including spatial planning. Regional Sea boundaries should be determined having regard to biogeographical factors, and the scheme of Regional Seas proposed by JNCC is a good starting point for further discussion with neighbouring countries. It is recognised that some modification of biogeographical Regional Sea boundaries is likely to be needed to accommodate the practicalities of environmental management and the involvement of regional stakeholders. The Pilot agrees that there is likely to be benefit in developing a number of fora at the Regional Sea scale to support sustainable development.

442. The Pilot confirms both the practicality and value of identifying coastal and seabed marine landscapes, and considers that this approach will have a major future role in relation to the sustainable development of the marine environment, contributing to the environmental assessment of development proposals, the regulation of marine activity, and the implementation of spatial planning. The value of marine landscapes in the identification of an ecologically-coherent network of important marine areas was also confirmed. The Pilot agrees that the identification of water column marine landscapes is a practical proposition but, in relation to the Irish Sea, was not able to determine how the classification could be translated readily into management action, and this aspect needs further work.

443. The draft framework recognised that special measures would be appropriate to protect important marine landscapes and habitats, and that there was a need to ensure the effective protection of a representative range of habitats and species. The draft framework suggested that a system of 'conservation boxes' might be an appropriate mechanism for delivering this requirement. The Pilot has considered this aspect of conservation of important areas in depth and concludes that the concept of an ecologically-coherent network of nationally-important areas is a fundamental component of the marine nature conservation framework. Areas within such a network will need to be conserved effectively through improved legislation, but the issue of 'conservation boxes' will need to be considered further in the context of other potential framework mechanisms, e.g. zoning within a scheme of spatial planning.

444. The draft framework highlighted the need to identify nationally-important marine landscapes, habitats and species and to take the necessary measures to conserve these. The Pilot has confirmed that such nationally-important features can be identified through the application of appropriate criteria, but considers that the conservation of these features will require a combination of measures, some of which will be needed to conserve a wide range of biodiversity features, some of which will need to be highly focused on particular nationally-important features. Further work is needed to identify which features can be supported through generic measures, and which will require specific action. Given the number of features potentially of nationally-important status, the cost-effectiveness of measures will be an important consideration.
445. Finally, the draft framework did not give explicit attention to the conservation of important marine geological and geomorphological features, although it could be expected that such features could be accommodated, at least in part, within the marine landscapes and nationally-important areas elements of the framework. The Pilot has sought to include geological and geomorphological interests within the refined framework.

Refined marine nature conservation framework

446. Taking account of the findings of the Pilot, the following refined marine nature conservation framework is proposed.

The Wider Sea

447. The Wider Sea includes all seabed and overlying waters under UK jurisdiction, together with those of adjacent waters. The main operational considerations are to:
- i. ensure that international policy and legislation supports, and does not frustrate, achievement of the strategic goals set for the marine environment;
 - ii. ensure that financial incentives applied to human activities taking place in, or materially affecting, the marine environment support, and do not run counter to, achievement of the strategic goals set for the marine environment;
 - iii. ensure that human activity is regulated effectively at the national level to achieve the maintenance, or restoration, of good ecological conditions, and the conservation and sustainable use of the marine environment. This system of regulation should include both appropriate legislation and effective enforcement measures;
 - iv. develop a system of co-ordinated marine environmental monitoring, together with the monitoring of human activities, within national waters and, by agreement with countries, also the adjacent waters of neighbouring countries.

The Regional Sea

448. The Regional Sea is an ecologically-meaningful subdivision of the Wider Sea, and is a medium-scale marine ecosystem. Its boundaries will be determined initially having regard to factors of coastal geography, water temperature, depth and currents, but will be adjusted to reflect the use made of the sea by local communities and to accommodate the practicalities of environmental management. The main operational considerations are that the Regional Sea:
- i. provides an appropriate and necessary context for the assessment of marine biological resources, and the physical and chemical processes that these depend upon;

- ii. provides an appropriate and necessary context for the assessment of human economic and social dependency upon the Regional Sea, and the sea's contribution to regional prosperity and quality of life;
- iii. provides an appropriate and necessary context for the involvement of international and national stakeholders and local communities in determining the use made of marine resources at the regional level;
- iv. provides an appropriate and necessary level at which strategic planning and spatial planning will take place in the marine environment. Such strategic and spatial planning should include zoning of human activities so as to avoid damage or disturbance to sensitive areas; measures to ensure the maintenance or improvement of water quality conditions; and measures aimed at maintaining the physical and biological processes that support marine ecosystems, including the maintenance of their trophic structure;
- v. provides the level at which ecologically-coherent networks of marine protected areas are identified.

Marine Landscapes

449. Marine landscapes are small-scale ecosystems or medium-scale marine habitats. In continental shelf waters of 300m or less, they comprise three basic types, namely: i) coastal (physiographic) types, where the seabed and overlying water are closely interlinked; ii) seabed types, where the seabed is somewhat independent of the overlying water except at the substrate/water interface; and iii) water column types, which occur in open water areas above the substrate/water interface. Further investigation is needed to determine whether, in water areas significantly deeper than 300m, the water column types should be further defined in terms of depth. The main operational considerations are that marine landscapes:

- i. provide the broader environmental context for spatial planning, and human activity regulation, across the whole of the Regional Sea and at the local level;
- ii. provide the broad typology of habitat types from which representative examples can be identified to contribute to an ecologically-coherent network of marine protected areas.

Nationally-important marine areas

450. In continental shelf waters of 300m or less, nationally-important areas comprise medium to small areas of the seabed together with the overlying water and water surface. They consist of four main types, namely: i) representative examples of the main marine landscape types; ii) areas of exceptional habitat or species biodiversity; iii) important areas for aggregations of mobile species (e.g. important spawning, nursery, calving, feeding or resting areas, and migration bottlenecks); iv) nationally-important areas for geology or geomorphology. Further investigation is needed to determine whether, in sea areas of considerably greater depth than 300m, a distinction should be made, when determining the boundaries of nationally-important areas, between the seabed and the overlying water or water surface. The main operational considerations are that:

- i. areas are selected on the basis of national criteria and form an ecologically-coherent network for the Regional Sea;
- ii. areas within the network are selected so as to provide ecological or geomorphological support to the other areas, or to adjacent areas of seabed or water;

- iii. regulation of human activity in the areas is proportionate and relevant so as to enable the areas to make their individual and collective contributions to achieving the strategic goals and objectives for marine nature conservation.

Nationally-important marine features

451. Nationally-important features are marine landscapes, habitats or features which have met national criteria in relation to one or more of: proportional importance in a north-east Atlantic or global context; rarity; decline; threat of significant decline. The main operational considerations are that:

- i. features whose distribution is clustered and centred on a small number of distinct localities, or which are aggregated in predictable localities for at least part of the year, will be conserved primarily through the nationally-important areas network;
- ii. species which are mobile, occurring as individuals or in small or even large groups, and which are vulnerable to capture fisheries, should be conserved by special measures regulating such capture;
- iii. species which are vulnerable to disturbance resulting from human-induced noise, vibration or movement, should be conserved by the use of codes or regulations relating to those impacts;
- iv. habitats and species requiring the maintenance or improvement of water quality conditions, or the avoidance of pollution;
- v. where specific local or national action is needed, Action Plans for individual features, or groups of similar features, should be prepared and implemented.

452. Conservation Objectives will need to be set at the levels of the Regional Sea and nationally-important areas. They may also be needed at other levels within the framework where this is appropriate. The marine nature conservation framework will contribute to spatial planning for the Regional Sea by providing environmental information necessary to guide the regulation of human activities and support the strategic goals for the sustainable development of the marine environment.

453. The following recommendation is made in relation to the marine nature conservation framework:

Recommendation

R63 It is recommended that the marine nature conservation framework as set out under paragraphs 447 to 452 of this Report be adopted for use in the UK and promoted with other countries in the north-east Atlantic area.