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# AN OVERVIEW OF MARINE PROTECTED AREAS IN THE UK

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#### INTRODUCTION TO MARINE PROTECTED AREAS

Marine Protected Areas (MPAs) have been defined by the International Union for the Conservation of Nature as;

"Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment"

There are many different types of MPA with the management arrangements ranging from multiple-use to strict protection within "no-take zones" or "Highly Protected Marine Reserves". They include examples of all the different categories of protected areas defined by IUCN<sup>1</sup> (Table 1) and reflect the varied objectives of MPAs.

#### Table 1. IUCN Protected area categories

Category	Management Objectives
Ι	Protected area managed mainly for science or wilderness protection (I(a) Strict Nature Reserves and I(b) Wilderness Areas).
II	Protected area managed mainly for ecosystem protection and recreation (National Park).
III	Protected area managed mainly for conservation of specific natural features (Natural Monument).
IV	Protected area managed mainly for conservation through management intervention
V	Protected area managed mainly for landscape/seascape conservation and recreation (Protected Landscape/Seascape)
VI	Protected area managed mainly for the sustainable use of natural ecosystems (Managed Resource Protected Area).

Although usually considered to be areas designated for conservation of biodiversity, there are also other types of MPAs. They include fisheries reserves or "boxes" where there may be seasonal closures or gear restrictions as part of a management regime for commercial fisheries, areas of archaeological interest, military exercise areas, and safety zones around marine structures (such as oil platforms and offshore wind turbines) where access is restricted and which act as *de facto* reserves. This briefing is concerned with MPAs where the conservation of biodiversity is the principle reason for establishment.

A global review carried out in the mid 1990's listed just over 1,100 MPAs but they are estimated to cover less than half a percent of the world's oceans with only approximately 0.001% strictly protected as "no take zones".

<sup>&</sup>lt;sup>1</sup> IUCN (1994) Guidelines for Protected Area Management Categories. IUCN, Gland, Switzerland

The world's first MPA was probably the Fort Jefferson National Monument in Florida which covered 18,850ha of sea and 35ha of coastal land. Although the site was designated in 1935, the main impetus for MPAs came much later. The World Congress on National Parks in 1962 was one of the first international conservation meetings to give the subject special attention and a follow up meeting in 1982, called for the incorporation of marine, coastal and freshwater sites into the worldwide network of protected areas.

Most MPAs are adjacent or close to coasts. This is because, in contrast to offshore areas, the coastal zone is usually under greater pressure from human activities, the environment and its wildlife is often better known, and management issues such as enforcement are seen as more feasible. The majority are designated in territorial seas but there are also MPAs in Exclusive Economic Zones and a number of very large MPAs such as the Florida Keys National Marine Sanctuary and the Great Barrier Reef Marine Park which include territorial waters and EEZ.

Until recently, there was little or no consideration of the value and feasibility of establishing MPAs on the High Seas. The situation is changing however, with IUCN members adopting a resolution at the World Conservation Congress in 2000, for IUCN to explore an appropriate range of tools including High Seas MPAs, "with the objective of implementing effective protection, restoration and sustainable use of biodiversity and ecosystem processes on the High Seas" including the development of a 'High Seas MPA Action Plan'. The Oslo & Paris Commission (OSPAR) has also instituted a programme for the identification and establishment of MPAs in the North East Atlantic which includes the High Seas area. Discussions are under way in fora such as these about the locations that might benefit from MPA status, and initiatives are being promoted through the UN and other bodies to clarify the legal position of High Seas MPAs.

MPAs have a wide range of potential benefits to biodiversity depending on the management measures that are introduced. They can:

- Protect and manage substantial examples of marine and estuarine systems to ensure their long-term viability and to maintain genetic diversity
- Protect depleted, threatened, rare or endangered species and populations and, in particular, preserve habitats considered critical for the survival of such species
- Protect and manage areas of significance to the life cycles of economically important species
- Prevent outside activities from detrimentally affecting the marine protected area
- Provide for the continued welfare of people affected by the creation of MPAs
- Preserve, protect and manage historical and cultural sites and natural aesthetic values of marine and estuarine areas
- Facilitate the interpretation of marine and estuarine systems for the purposes of conservation, education and tourism
- Accommodate, with appropriate management regimes a broad spectrum of human activities compatible with the primary goal in marine and estuarine settings

• Provide for research and training, and for monitoring the environmental effects of human activities including the direct and indirect effects of development and adjacent land-use practices.<sup>2</sup>

Regardless of these potential benefits, it is also widely accepted that MPAs are just one of a number of useful tools for the conservation of biodiversity. They may also have a wider role, for example in helping achieve objectives sought by other interests such as fisheries, tourism, recreation, and scientific research.

MPAs usually attract considerable public attention, interest and controversy because they affect how people use the designated area. For this reason, their establishment and management can be a challenging task. However, the impact on users is also their greatest potential strength, because MPAs will only benefit marine biodiversity with the support and enthusiasm of those who are affected by them.

#### CURRENT POLICY AND LEGAL CONTEXT

The UK position on Marine Protected Areas is being driven by international, European and national initiatives, policies and programmes.

#### International

At an international level work stemming from the Convention on Biological Diversity (CBD) and the Oslo & Paris Commission (OSPAR) are a major influence on national MPA programmes.

The CBD has marine and coastal protected areas as one of its themes and has taken on board the goal adopted at the 2002 World Summit on Sustainable Development to establish representative networks of protected areas in the maritime environment by 2012.

The 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) came into force in 1998. Annex V of the Convention (on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area) gives the OSPAR Commission a duty to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species of habitats. In 2003 the OSPAR Commission adopted a Recommendation on a network of MPAs. A target date of 2010 has been set to achieve "an ecologically coherent network of well managed marine protected areas". This is linked to an agreement made by Environment Ministers at the 5<sup>th</sup> North Sea Conference to establish such a network of MPAs by 2010.

A number of other international initiatives have given international recognition to existing MPAs. They include the Ramsar Convention under which sites can be designated as "Wetlands of International Importance", protected areas established under the World Heritage Convention

<sup>&</sup>lt;sup>2</sup> Objectives of a global representative system of MPAs as adopted by the 17<sup>th</sup> General Assembly of IUCN. In; Gubbay (Ed), 1995 Marine Protected Areas. Principles & techniques for management. Chapman & Hall. Conservation Biology Series.

(World Heritage Sites) and the UNESCO Man & Biosphere Programme (Biosphere Reserves). All three types of protected area include marine examples.

### Europe

At a European level the EU Habitats and Species Directive (92/43/EEC) has had a major influence on the UK MPA programme. The Directive requires the establishment of protected areas (Special Areas of Conservation – SACs) for a number of listed habitats and species, in areas of sea under the jurisdiction of Member States (i.e. out to the 200nm limit). These locations, together with Special Protection Areas (SPAs), designated under the EU Directive on the Conservation of Wild Birds, make up the *Natura 2000* network of protected areas throughout the European Union. European Commission is due to agree guidance on *Natura 2000* sites in the marine environment.

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Interest in the establishment of MPAs in the UK started to develop in the 1970's. At that time there was no statutory mechanism for their designation or formal approach within government. A number of locations were declared "voluntary marine reserves" through the initiative and actions of local users.

This situation changed with the 1981 Wildlife & Countryside provisions for the establishment of Marine Nature Reserves (MNRs). These were sites to be managed for the purpose of:

- (a) conserving marine flora or fauna or geological or physiographical features of special interest in the area
- (b) Providing, under suitable conditions and control, special opportunities for the study of, and research into, matters relating to marine flora and fauna and the physical conditions in which they live, or for the study of geological and physiographical features of special interest in the area.

There was very limited progress in designated MPAs using this legislation and, in practice, interest in setting up MNRs has been overtaken by events as effort is now directed at establishing the *Natura 2000* network of protected areas (including marine areas) because of the requirements of the EU Habitats & Birds Directives.

In 2001, efforts were made to introduce a Private Member's Bill on the protection of the marine environment<sup>3</sup>, which included measures for the establishment of a network of nationally important locations as MPAs. The Bill was unsuccessful, falling in the Lords, but during the various debates the Government made a commitment to look at the issue in more detail.

In 2004, the House of Commons Environment, Food & Rural Affairs Committee <sup>4</sup>examined Government policy on the protection of the marine environment. In relation to habitat and species protection, the Committee urged the Government to begin immediate work with the Commission to ensure that the Habitats Directive covers all the necessary species and habitats,

<sup>&</sup>lt;sup>3</sup> Marine Wildlife Conservation Bill

<sup>&</sup>lt;sup>4</sup> HMSO (2004) House of Commons Environment, Food & Rural Affairs Committee. Marine Environment. Sixth Report of Session 2003-2004. HC 76.

to strengthen protection of the marine environment and to ensure that conflicts between the demands of the Directive and the Common Fisheries Policy are resolved as a matter of urgency.

The failure to create a network of MNRs using the 1981 Wildlife & Countryside Act (i.e. only 3 sites in more than 20 years) has been recognised by government and in 1999 a working group (the Review of Marine Nature Conservation (RMNC)) was set up the evaluate the success of previous statutory and voluntary conservation measures, identify examples of best practices and barriers to success, and put forward proposals to improve marine nature conservation. In relation to MPAs, The RMNC published its recommendations in July 2004, and in relation to MPAs includes the following:

"Government should identify areas important for marine biodiversity and geodiversity in UK waters and those requiring priority conservation action. Management measures should be identified for important marine areas as considered appropriate. "

and

"an ecologically coherent and representative network of marine protected areas should be identified and established, and appropriate and proportionate measures applied to ensure their conservation needs are met."

Government response to these recommendations is pending .

Current UK policy on MPAs is set out in the Marine Stewardship Report<sup>5</sup> which supports the establishment of MPAs and includes commitments:

(a) to build on marine protection afforded in territorial waters under the Habitats and Birds Directives by applying these Directives out to the limit of jurisdiction of UK waters

and

(b) to identify and designate relevant areas of the UK's seas as areas of marine protection belonging to a network of well-managed sites by 2010

The UK legislation which provides the statutory basis for these different types of MPAs and supporting policy guidance is listed in Table 2.

Table 2. Key legislation and policy guidance on MPAs in the UK.

The Wildlife & Countryside Act, 1981

The Nature Conservation and Amenity Lands (Northern Ireland) Order 1985. No.170.

The Conservation (Natural Habitats &c) Regulations 1994

The Conservation (Natural Habitats &c) Regulations (Northern Ireland) 1995

The Offshore Petroleum Activities (Conservation of Habitats) Regulations, 2001

<sup>&</sup>lt;sup>5</sup> DEFRA (2002) Safeguarding Our Seas. A strategy for the conservation and sustainable development of our marine environment.

The Offshore Marine Conservation (Natural Habitats, &c) Regulations (under consultation)

Department of the Environment (1994) Planning Policy Guidance No.9: Nature Conservation.

Scottish Office, Environment Department (1995) Nature conservation: implementation in Scotland of EC Directives on the Conservation of Natural Habitats and of Wild Flora and Fauna, and the Conservation of Wild Birds: The Conservation (Natural Habitats &c) Regulations 1994. Circular No.6/1995.

Department of the Environment (Northern Ireland) 1995. The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995: A guidance note.

Department of the Environment, Transport & the Regions (1998) European marine Sites in England & Wales. A guide to the Conservation (Natural Habitats &c) Regulations 1994 and to the preparation and Application of Management Schemes.

The Marine Parks (Scotland) Act, 2000

The Nature Conservation (Scotland) Act 2004

In May 2005 the Government outlined plans to introduce a Marine Bill in the current term, and will include provisions for nature conservation. Given the RMNC report in July 2004, an opportunity currently exists to significantly develop the statutory basis and policy on MPAs in the UK. MPA related provisions in a Marine Bill also provide an opportunity to address the need for a statutory basis for the introduction of OSPAR sites beyond the nomination of existing marine SACs.

#### CURRENT SITUATION REGARDING ESTABLISHMENT OF MPAS IN THE UK

The first steps towards MPAs in the UK were informal agreements to set up voluntary marine conservation areas by local communities, diving clubs and marine scientists, and conservation groups. There are seven such areas at the present time. These are at St.Abbs, Wembury, St.Mary's Island, Looe, Polzeath, Purbeck and Seven Sisters.

Using the provisions of the 1981 Wildlife & Countryside Act, the first MNR was set up around a former voluntary marine reserve, the island of Lundy, in 1986. MNR status followed for Skomer in 1989 and Strangford Lough in 1995.

The requirement to establish the *Natura 2000* network of protected areas was the impetus for a more comprehensive approach to establishing MPAs in the UK. Eight marine habitats and nine of the marine species listed in the Habitats Directive occur in UK waters and there are 16 marine priority species and 40 regularly occurring migratory species listed on the Annexes of the Birds Directive which occur in UK waters. MPAs have been set up for 7 of the 8 habitats, and 7 of the 10 species (Table 3).

Table 3. Number of candidate SACs in the UK nominated for marine habitats and species listed on Annex I & II of the EU Habitats Directive (NB. Sites may be nominated for more than one habitats and/or species) (August 04).

Habitat	Number	Species	Number
Caves	15	Sea lamprey	20
Sandbanks	23	Allis shad	6
Estuaries	15	Twaite shad	5
Mudflats & sandflats	27	Bottlenose dolphin	3
Lagoons	19	Grey seal	11
Shallow inlets & bays	14	Common seal	11
Reefs	33	Otter	72
Submarine structures with leaking gas	-	Harbour porpoise	-
		Loggerhead turtle	-
		Sturgeon	-

In January 2004, there were 65 candidate marine SACs in the UK extending over 6.2 million ha. Since the adoption of the UK list of candidate SACs at a European level, at the end of 2004, the majority of these sites have now formally been upgraded to SAC status. Only one site, the Darwin Mounds, has formerly been put forward in the UK Offshore Area<sup>6</sup>. There are 142 SPAs with a marine component however all, except one are coastal and do not extend below low water.

The MPAs discussed in this briefing have been set up for the conservation of biodiversity. It is important to remember, however, that 'MPAs' with other objectives, such as fisheries management and the protection of cultural heritage also exist. Certain locations may also be *de facto* MPAs, such as safety zones around offshore structures where access and activities such as fishing may be restricted or prohibited.

## CURRENT SITUATION REGARDING MANAGEMENT OF MPAS IN THE UK

The principle process for the management of MPAs in the UK is that which is being undertaken for marine *Natura 2000* sites. The regulations that implement this in the UK specify that a single scheme of management may be established for any *Natura 2000* site, however, there is no requirement for every *Natura 2000* site to have a management scheme. In England, for

<sup>&</sup>lt;sup>6</sup> An area defined on the basis of the definition of the UK Continental Shelf.

example, eleven sites have published management schemes, eight sites have schemes under development and there are twenty sites with no schemes.

A large number of organisations are involved in the development, preparation, implementation and monitoring of the management schemes for marine *Natura 2000* sites. At a UK level the European Wildlife Division of Defra reports to the European Commission on progress with implementation of the Habitats & Birds Directives, including marine *Natura 2000* sites. At a national level, the country conservation agencies (English Nature, Scottish Natural Heritage, Countryside Council for Wales) and the Environment & Heritage Service (NI) are responsible for setting the conservation objectives for each site and collating information on site condition which is passed to Defra. They also provide advice on operations that may cause deterioration or disturbance to the habitats and/or species for which the site has been designated.

At a site level, relevant authorities<sup>7</sup> are responsible for establishing the single scheme of management and, depending on their legal responsibilities (e.g. fisheries, port management, nature conservation), they will lead on the implementation of particular aspects of the scheme of management. Some sites have a separate advisory group which enables other stakeholders such as owners, occupiers, users, and industry representatives, to participate in the process, while in other sites there is a single group bringing all parties together. In some cases, an existing group, such as an estuary partnership, provides a ready-made structure that can be built on, and there may be existing management schemes which can be modified to reflect the conservation objectives of marine *Natura 2000* sites. Project Officers help to co-ordinate the development and implementation of the management scheme at some sites.

In addition to managing activities in *Natura 2000* sites that take place on a continuing basis, decisions need to be made about 'plans and projects'. In general, this relates to "any operation which requires an application to be made for specific statutory consent, authorisation, licence or other permission"<sup>8</sup>. There is ongoing debate about how fishing activity should be categorised.

All three MNRs are *Natura 2000* sites and consequently their management is subsumed within the process described above. In the case of voluntary marine conservation areas, stakeholder groups provide the committee structure and management objectives and actions are promoted through voluntary codes of conduct, education and interpretation programmes. In some cases these may be supported by regulations (such as sea fishery committee byelaws), giving an element of statutory protection.

MPAs in the UK are currently managed as "multiple-use areas", which means that many activities take place within the protected area but that they may be zoned or be subject to certain conditions. Two examples are the prohibition of bottom trawling to protect benthic habitats and species, and seasonal restrictions on access to parts of the MPA to minimise disturbance to nesting seabirds. There is also an emphasis on education and interpretation at many of the sites

<sup>&</sup>lt;sup>7</sup> The Habitat Regulations identify relevant authorities as having a particular and special role in the management of a site. They are defined as statutory bodies having powers or functions which have, or could have, an impact of the marine areas within or adjacent to a European marine site.

<sup>&</sup>lt;sup>8</sup> DETR (1998) European Marine Sites in England & Wales. A Guide to the Conservation (Natural Habitats &c.) Regulations 1994 and to the Preparation and Application of Management Schemes.

to explain the reasons and detail of management provisions and to encourage compliance on a voluntary basis.

There is a current debate on the role and benefit of "Highly Protected Marine Reserves" or zones within larger "multiple-use areas". Experience from other parts of the world have shown that high levels of protection, particularly prohibition of extractive activities, including fisheries, can serve specific functions including to provide a useful baseline for scientific reference and monitoring, and opportunities for habitat and species recovery and restoration, including commercial species.

The UK view regarding the status of marine *Natura 2000* sites is that "unless there is evidence to the contrary, a widespread assumption is that the sites were in favourable condition when originally selected and therefore, the pattern of human use at that time was not causing significant damage"<sup>9</sup>. In practice, there is a programme of monitoring and reporting on the condition of each site to the European Commission on a 6 yearly basis.

The success of MPAs can be measured in many ways. In the case of *Natura 2000* sites the key is whether they are in favourable condition (which is defined in terms of specified conservation objectives). A much wider assessment is being promoted by IUCN who have developed a manual which can be used to judge the effectiveness of MPAs, and a Scorecard approach being developed by the World Bank.

Case work from marine *Natura 2000* sites shows a variable pattern of success in trying to prevent damaging activities. For example in the Wash SAC, the opening up of a new fishery for *Ensis* was halted. In contrast annual licenses have been issued in 1998-2004 for the extraction of maerl from with the Fal & Helford cSAC (a site nominated for features including the fossil maerl beds) even though the maerl is a non-renewable resource.

## OPPORTUNITIES AND POTENTIAL DIRECTION OF FUTURE WORK ON MPAS IN THE UK

There can be little doubt that the UK has taken some very significant steps towards the establishment of MPAs in the last two decades. The situation has moved from informal, voluntary initiatives to a statutory programme of site designation with a requirement for management to achieve specified conservation objectives. A large area of UK territorial waters is now covered by marine SACs, with work in hand to extend this to the UK offshore area. The SPA programme has also moved from its focus of establishing nature reserves around the land based breeding colonies of seabirds to considering seaward extensions of these protected areas as well as identification of important aggregations waterfowl and seabirds both inshore and offshore. From the point of view of stakeholder involvement, consultation is now the norm and management committees and the development of management plans involve a wide spectrum of interested parties. There are also opportunities for stakeholders to comment on initiatives surrounding MPAs from contributing to the site selection process, through to establishment, implementation, enforcement and monitoring.

<sup>&</sup>lt;sup>9</sup> English Nature *et al.*, (2001) Indications of good practice for establishing management schemes on European marine sites. Learning from the UK Marine SACs Project 1996-2001.

With the process of site identification and establishment under way, more emphasis is being given to assessing the sufficiency of protected areas (for example, do they cover representative examples of UK marine biodiversity) and the effectiveness of the management measures which are being introduced. For many locations, management schemes are relatively recent (agreed in the last 5 years) so there has been limited opportunity to determine whether the desired conservation objectives are being met. A formal assessment and report of the conservation status of *Natura 2000* sites must be submitted to the European Commission every six years, reporting due in 2006. In the meantime there is a growing body of case work which illustrates the approaches to management, and the difficulties and success of those MPAs which have been running for a number of years, especially given the UK position that candidate SACs and SPAs will be treated as fully designated sites even though the final step of formal approval through the regional biogeographic meeting has only recently been completed.

The strengths and weaknesses of the current situation are summarised in Table 3.

Торіс	Strengths	Weaknesses
Geographic extent	Large parts of territorial waters around England and Wales have been designated as marine SACs.	Relatively poor coverage of territorial waters in Scotland and Northern Ireland. Sites within territorial waters have a coastal emphasis. Sites in UK Offshore waters still to be identified
Targeted habitats and species	A variety of habitat types and species are the target of conservation action within MPAs (benthic, demersal, pelagic). Sites may be designated for particular habitats & species but the management measures should bring incidental benefits to other species and habitats	Driven by the EC Habitats and Birds Directive therefore poor representation of UK marine biodiversity as targets for conservation action
Policy	Commitment by Government to take forward MPAs and an agreed timetable for action, linked to international obligations.	Policy driven by EU rather than any specific UK requirements. No policy to establish MPAs in nationally important locations.
Stakeholder involvement	Standard practice at all stages of MPA process. Opportunities for stakeholders to lead as well as participate in management committees.	Limited opportunities for stakeholders to propose sites.
Management plans	Single scheme of management, which aim to simplify the complex management arrangements that exist in some MPAs.	No requirement for management schemes.
Approach to site selection	Commitment to networks and supporting ecosystem approach to management. Some research to try and understand what this means in practice.	Lack of progress in setting up MPA networks and promoting their role in ecosystem management.
Management measures	Recognition of the need to address the full spectrum of activities that take place within	Reliant on relevant authorities taking action – not their core function.

Table 3. Strengths and weaknesses of MPAs in the UK

	and around MPAs.	
Management objectives	Seeking favourable conservation status.	In practice, often seeking to maintain the <i>status</i> <i>quo</i> rather than recovery and improvement. General assumption that all <i>Natura 2000</i> sites were in favourable condition when designated.
Enforcement of management measures	Recognised as fundamental to success.	Limited presence, resources and personnel to carry this out
Financial support	EU Projects have provided funding to develop management schemes for a number of sites	No long-term security of funding. Generally considered inadequate for the management, enforcement and monitoring tasks required.
Types of MPAs – management systems	Multiple use management areas with zoning of activities in some of the sites.	Only one site (Lundy) has a statutory fisheries 'no-take zone'
Flexibility	Management schemes can be reviewed	Generally long lead in time to change management provisions. Emergency action difficult.

There has been some recent debate on the concept of multi-purpose sites, particularly combining biodiversity objectives with fisheries objectives. Whilst there may be some opportunity for identifying dual objectives within MPAs, the process of identifying "MPAs" for fisheries benefits should remain a parallel process to the primary role of MPA development for fulfilling biodiversity obligations.

There are a number of priorities for future work covering MPAs in UK and include improving the value and effectiveness of existing MPAs; ensuring there are sufficient and appropriate MPAs in meaningful networks; and setting MPAs in the context of wider marine management programmes.

The reporting of the RMNC and the commitment of a Marine Bill provide an important opportunity and sets the framework to develop policy in the areas outlined above, and in addressing some of the issues arising from the RMNC process.

There can be little doubt that MPAs are difficult to establish in the UK. Practical, political, social and economic issues still remain and consequently the arrangements for biodiversity conservation on issues as varied as site selection, boundaries, management provisions and enforcement capabilities need revision. In particular it will be important to:

• Ensure there are clear objectives for MPAs from the outset. This will not only give explicit assurance about the biodiversity conservation objectives for the site but also enable the effectiveness of the MPA to be properly evaluated in the future. In the case of objectives there is particular confusion about the role of "No-Take Zones (which may cover part or all of an MPA set up for the conservation of biodiversity) and the emphasis that should be given to any related benefits for commercial fisheries. In the case of evaluating effectiveness, clear, specific, conservation objectives are essential.

- Have an effective means of dealing with infractions of management measures. While there are procedures for dealing with infractions. These can take a long time to institute and may only be resolved by Judicial Review or report to the European Commission. This is clearly not a practical way of dealing with day to day action or emergencies. This whole area needs to be examined with practical and effective procedures set out clearly in advance.
- Management measures in UK MPAs are the responsibility of a variety of organisations, the majority of which do not have biodiversity conservation as their primary role. This has created difficulties for the organisations in prioritising MPA management needs and finding sufficient resources to carry out these functions (despite the fact that those linked to *Natura 2000* sites are a legal requirement). Long-term provisions to enable to carry out this role needs to be addressed. A Marine Bill provides the opportunity to address some of the issues relating to management measures such as consents and byelaws.

The MPA programme in the UK is being steered by the specific requirements of a number of European Directives and commitments that have been made at an international level (e.g. OSPAR, CBD). The requirements from a national perspective are therefore difficult to disentangle and assess. The RMNC has set out a national perspective in relation to MPAs (from landscape level to specific sites). Areas for development include:

- MPAs to cover habitats and species representative of UK marine biodiversity. While MPAs are not the only tool for the conservation of marine biodiversity, there are habitats and species that will benefit from this approach. A suite of MPAs which include the variety of benthic habitats and marine communities that occur in UK waters will bring a valuable focus to conservation from a national perspective as well as helping to deliver European and wider international marine conservation commitments.
- The role of zoning and strict management to expand the objectives of MPAs and networks to contribute to biodiversity recovery, ecological function and as scientific reference area.
- The potential to enhance the scale and type of benefits to marine biodiversity by setting up networks of MPAs is the subject of much discussion at the present time. While there are requirements for networks to be established (e.g. through OSPAR), little work has been done on how to take this forward in the UK and what it would mean in practice, for example by identifying potential locations for a network of nationally important MPAs.

MPAs are a nature conservation tool but they can also contribute to effective management of other interests. This wider potential has received some attention by UK conservation groups but this has understandably been limited as it has been difficult enough to establish them for biodiversity conservation. The wider potential does however have a major benefit of involving other interest groups in a positive process where they stand to gain from the establishment of MPAs rather than what is normally perceived as a "loss". Useful areas for future development include.

- Being clear about the relevance of MPAs to other sectors e.g. fisheries as well as the limitations, and forming partnerships with these sectors to move forward with MPAs (existing and planned) on a collaborative basis.
- MPAs in the context of spatial planning. The government has made a commitment to explore the potential and possibility of a system of marine spatial planning in UK waters.

The role of MPAs in such a system should be clear and explained from the outset so that they have a secure and understandable role in any future system of this sort.

• The role of MPAs as a management option which can contribute to sustainable use of the marine environment and demonstrate an ecosystem approach to marine management, and to establish what this means in practice and how these benefits can best be achieved.

Briefing based on text (An internal report to WWF, July 2004) by Sue Gubbay.