

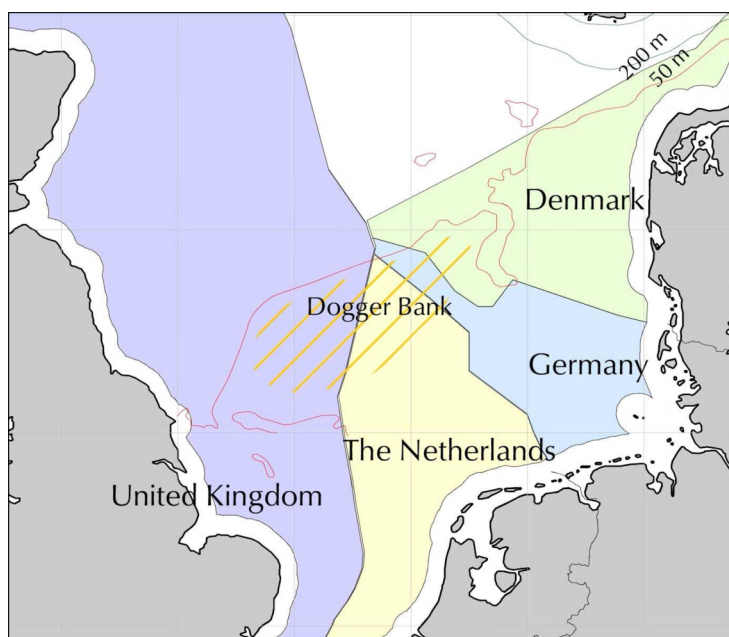


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Managing Across Boundaries



*The Dogger Bank – a future international
marine protected area*



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Cover illustration: map of the North Sea showing the location of the Dogger Bank and the boundaries of the Exclusive Economic Zones (EEZs) and/or equivalents of Denmark, Germany, the Netherlands and United Kingdom. © WWF / Sabine Christiansen

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1. Introduction

1.1 Background

Management of human activities affecting the world's marine environment is entering a new stage. The 2002 Johannesburg World Summit on Sustainable Development called for the establishment of a global network of marine protected areas by the year 2012, consistent with international law and science-based. The seventh meeting of the Conference of Parties to the Convention on Biological Diversity set the goal to establish a system of representative marine protected areas by 2012 and the Commission of the OSPAR Convention for the Protection of the Marine Environment agreed to “develop and evaluate by 2010 an ecologically coherent network of well-managed marine protected areas” (OSPAR 2003a).

The establishment of a representative network of marine protected areas comes along with the challenge to create and implement effective management systems therein. There is still a long way to go. So far less than 1% of the world's sea is declared marine protected area and fewer than 10% of currently existing marine protected areas achieve their management objectives and targets (Pomeroy *et al.* 2004).

As marine ecosystems very often expand across national or sub-national boundaries, a coherent and well-managed marine protected areas network needs to overcome the barriers of diverging jurisdictions. The

creation of national marine protected areas has been proven to be a difficult task. The establishment of co-operation across political lines will potentially become even more challenging, involving external relations, socio-economic, and legal issues.

Ultimately, effective management is a precondition to maintain or restore a favourable conservation status of marine sites and to contribute to the overarching goal of halting the loss of biodiversity and ensuring sustainable use of marine resources (Pomeroy *et al.* 2004). For transboundary sites, this goal can only be achieved by close international co-operation on monitoring, site selection and management. WWF believes that it is only by a rapid phase-in of transboundary marine protected area management that coastal states will be able to deliver their ambitious commitments.

In the North-East Atlantic region only a small number of marine protected areas have, so far, been designated. Although several of the coastal states are on the verge of creating marine reserves, feasible mechanisms for international management co-operation between protected areas are still lacking. The management of sea use still remains highly sectoral, both at the international as well as national level. As human pressure on the marine environment is constantly growing, the need for integrated management tools such as transfrontier marine spatial planning is becoming increasingly acute.

WWF believes that transboundary co-operation will lead to more cost-effective management schemes. Joint research and monitoring programmes and shared responsibilities for legal implementation and enforcement would facilitate a more co-ordinated use of limited financial resources.

This report highlights the Dogger Bank in the southern central North Sea as a showcase for transboundary marine protected area management and aims at promoting the development of ecosystem-based management in the area. WWF believes that it can serve as an ideal example for the development of effective transboundary co-operation in the offshore environment.

The Dogger Bank is situated at the transgression from the Central to the Southern North Sea and belongs to the Exclusive Economic Zones (EEZs or equivalents) of Denmark, Germany, the Netherlands, and the UK –

states which all committed themselves to the creation of an ecologically coherent network of well-managed marine protected areas. As a first step towards achieving transboundary co-operation WWF now calls upon the coastal states to jointly propose the Dogger Bank as a contiguous Site of Community Interest (pSCI) under the EC Habitats Directive (see chapters 3.3 and 9.2). As a second step the area should be nominated as a candidate OSPAR MPA.

1.2 Definitions

There is a great variety of terms in use for naming marine conservation areas. They often have very different levels of associated protection measures and the range of human activities within their boundaries can vary considerably. The World Conservation Union (IUCN) developed definitions for both marine protected areas (MPAs) and Transboundary Protected Areas. In this respect, a transboundary MPA represents a special type of MPA. The definitions are:

Marine Protected Area: “Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, and fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment” (Kelleher 1999).

Transboundary Protected Area: “An area of land and/or sea that straddles one or more boundaries between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limits of national sovereignty or jurisdiction whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other means” (Sandwith *et al.* 2001).

2. Transboundary co-operation between marine protected areas

2.1 Different types of boundaries

In practice, ecologically important sites often expand into areas of different national sovereignty. Different types of legal boundaries imply different issues for the management system. Hence they are critical for appropriate planning processes. MPA managers and practitioners need to address these different levels of legal intersection when designing management systems for a transboundary site.

For instance, MPA co-operation between EU and non-EU countries, e.g. Norway and Russia, may involve more problems than co-operation between EU Member States, where directives such as the EC-Birds and Habitats Directives offer common legal frameworks. In addition, management of major uses, such as fisheries, is delegated to supra national level and is exerted by the European Community.

Although this work largely focuses on boundaries between nation states, boundaries within countries can also be relevant. This is particularly true for federal countries, e.g. Germany, consisting of federal states or countries such as Portugal, having separate autonomous regions or provinces. Depending on the level of federalism, institutional fragmentation and sectoral competencies may impede co-operation and ecosystem-based management also within countries. An example of difficult intrastate co-operation is the missing extension of the Borkum Riffgrund pSCI, a proposed NATURA 2000 site in the German EEZ (federal jurisdiction), into territorial waters of Lower Saxony (state jurisdiction).

2.2 Potential benefits

Transboundary co-operation between MPAs facilitates a number of benefits that promote more effective management systems¹. It helps achieve the objectives and targets of a transboundary protected area and it takes into account the high degree of interconnectedness and complexity of marine

ecosystems. WWF believes that international co-operation is a crucial tool to increase management effectiveness of transboundary sites. Potential benefits of transboundary MPA co-operation are (modified from Sandwith *et al.* 2001 and Hamilton *et al.* 1996):

- Facilitating conservation management of transboundary sites.
- Facilitating more cost-effective research and environmental monitoring.
- Facilitating holistic ecosystem-based management approaches including both ecological and socio-economic issues.
- Facilitating legal enforcement and cross-border control of problems such as illegal and/or undersized fishing, marine pollution, damage from shipping.

2.3 Potential difficulties

The creation of transboundary management co-operation faces numerous governance and other difficulties. These difficulties should be assessed regarding their impact on planned co-operations prior to creating transboundary management schemes. They include (modified from Sandwith *et al.* 2001 and Hamilton *et al.* 1996):

- Different legal and administrative systems may impede transboundary co-operation.
- Different national importance of economic sectors may hinder co-operative management of sea use.
- Differential national commitment may impede true co-operation.
- Varying policies related to resource utilisation versus resource protection.
- Differential ratification of international protocols or conventions may hinder their employment for transboundary co-operation.
- Different scientific standards and methods may impede effective monitoring and research co-operation.

¹ Management effectiveness is the degree to which management actions are achieving the goals and objectives of a protected area (Hockings *et al.* 2000).

3. International management frameworks

Nature protection of the North Sea and the North-East Atlantic region is covered by several environmental regimes and conventions. The United Nations Conventions on the Law of the Sea (UNCLOS) and the Convention of Biological Diversity (CBD) oblige the signatory states to protect the marine environment. The International Maritime Organization (IMO) is the only international organization, authorised to implement special protective measures outside jurisdictions of coastal states. The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) which applies to areas both inside and outside jurisdictions of coastal states is an important regional management framework. The EC Birds and Habitats Directives, forming the Natura 2000 Network, require Member States to establish protected areas for habitats and species, which are of community importance. The Natura 2000 network is based on the idea of transboundary co-operation and the European Commission encourages member states to designate sites, located at national boundaries (Julien 2000). The EU Common Fisheries Policy aims to ensure sustainable exploitation of living aquatic resources. In the following paragraphs, an overview of the most important legal instruments and regimes concerning protection of the marine environment will be given.

3.1 UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS) has been in force since 1994 with 144 parties as of 6 November 2003. It lays down a comprehensive regime of law and order in the world's seas and oceans, regulating delimitation of boundaries, environmental protection and control, marine scientific research, economic and commercial activities, transfer of technology and the resolution of conflicts with regard to ocean matters.

Some of the key features of the Convention are the following (United Nations 2003):

- Coastal states exercise sovereignty over their territorial sea which can extend up to 12 nm from the baselines; foreign vessels are allowed "innocent passage".

- Ships of all countries are allowed "transit passage" through straits used for international navigation.
- Coastal states have the sovereign rights in a 200 nm Exclusive Economic Zone (EEZ) as regards to natural resources, certain economic activities, marine research, and environmental protection. All other states have freedom of navigation in the EEZ as well as laying submarine cables and pipelines.
- Coastal states have sovereign rights over the continental shelf for exploring and exploiting it; the shelf extends at least 200 nm from the shores and more under specific circumstances.
- All states enjoy the traditional freedoms of navigation, overflight, scientific research and fishing on the High Seas.

UNCLOS Article 211, 6 recognizes that there may be areas of the EEZ of a coastal state, which because of their ecological and oceanographical conditions as well as the protection or utilization of their resources require special mandatory measures, which are more stringent than what is possible through generally accepted international standards. In these circumstances the convention enables the coastal states to adopt measures for "Special Areas", which have been developed by a "competent international organization". This organization referred to in article 211 is the International Maritime Organization (IMO).

The International Seabed Authority, an autonomous international organization established under UNCLOS, came into existence in 1994. The Authority is the organization through which States Parties to the Convention shall administer the resources of the seabed and ocean floor and subsoil thereof that are beyond the limits of national jurisdiction.

3.2 International Maritime Organization

In 1948, the United Nations adopted a convention establishing the IMO, an international body exclusively devoted to maritime matters. It currently consists of 160 member states (October 2001) and two associate members. Its governing body, the Assembly, meets once every two years and between sessions the Council, consisting of 32 elected member governments, acts as governing body.

Most of IMO's work is carried out by a number of committees of which the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) are the most important. The IMO has promoted the adoption of some 40 conventions and protocols as well as a great number of codes and recommendations concerning maritime safety and environmental protection. Some of the key conventions are The International Convention on Safety of Life at Sea (SOLAS), The Convention on International Regulations for Preventing Collisions at Sea (COLREG), and the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

As with UNCLOS, MARPOL also defines certain areas as "Special Area" in which the adoption of special mandatory methods for the prevention of pollution is required. Under the convention, these Special Areas are provided with a higher level of protection than other sea areas. A useful environmental management tool of IMO is the designation of "Particularly Sensitive Sea Areas" (PSSAs). Guidelines on designating PSSAs are contained in the resolution A.927(22) Guidelines of Special Areas under MARPOL 73/78 and Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas. In general to be identified as a PSSA an area must fulfil a number of criteria:

- The area must have certain ecological, socio-economic, or scientific characteristics.
- It must be vulnerable to damage by maritime activities.
- There must be measures that can be adopted by IMO to provide protection from these activities.

Some of the measures available through IMO are areas to be avoided, traffic separation schemes, special discharge restrictions, or pilotage requirements (IMO 2003). The criteria for identifying PSSAs and the criteria for the designation of Special Areas are not mutually exclusive. A PSSA may be identified within a Special Area and vice versa.

There are currently six designated PSSAs: the Great Barrier Reef, Australia (1990); the Sabana Camagüey Archipelago, Cuba (1997); Malpelo Island, Columbia (2002); Waters around the Florida Keys, USA (2002); the Wadden Sea, Denmark, Germany, The Netherlands

(2002); and the Paracas National Reserve, Peru (2003). The following PSSAs were "approved in principle": the Western European Maritime Waters, Belgium, France, Ireland, Portugal, Spain and United Kingdom; extension of the Great Barrier Reef PSSA to cover the Torres Strait Region, Australia and Papa New Guinea (in 2003); the Galapagos Archipelago, Ecuador; the waters of the Canary Islands, Spain; and the Baltic Sea, except waters under Russian jurisdiction (in 2004) (IMO 2004).

Co-ordinated lobbying of the EU 25, having after enlargement a share of about 20% of the world tonnage, will be very important to adopt effective associated protective measures for PSSAs and to spur further action of the IMO (SRU 2004).

3.3 EC Birds and Habitats Directives - NATURA 2000

Natura 2000 aims at establishing a coherent network of protected areas in order to maintain and where necessary to restore a favourable conservation status of all naturally occurring species and habitats in the EU. After completion, the network will comprise a coherent system of Special Areas of Conservations (SACs) under the Habitats Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna flora) and Special Protection Areas (SPAs) under the Birds Directive (Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds).

The Habitats and Birds Directives apply both to Member States' territorial waters and the EEZs or equivalents. The designation procedure of SACs consists of three steps: Member States submit a national list of proposed Sites of Community Interest (pSCI), including habitats and species listed under the annexes, to the European Commission. Member States are expected to designate 60% of the total extent of the respective habitat type within their jurisdiction as pSCIs. Nominations that fall between 20-60% are open for discussion whereas a coverage of <20% is considered to be insufficient (European Commission 1997). Based on the national lists the Commission subsequently adopts a list of Sites of Community Interest (SCI) which in turn requires the member states

to designate the declared SCIs as SACs as soon as possible, and at the latest six years after the adoption of the SCI list by the Commission.

In 1999, a High Court ruling in the UK established that the Habitat Directive applies both to territorial waters and the UK Continental Shelf and superjacent waters. Subsequently the European Commission made clear that the provisions of the Habitats Directive are applicable to all Member States that exert their sovereign rights to the offshore limit of jurisdiction, e.g. within their EEZ (European Commission 1999, BfN 2001). According to Article 192 of UNCLOS, contracting states have the obligation to protect and preserve the marine environment. It can be assumed that recognition of a Continental Shelf by a coastal state brings not only rights but also obligations. If rights are exercised over natural resources, obligations exist to apply the appropriate National and Community legislation. Accordingly, Member States should respect Community legislation in all fields where they exercise sovereign powers within their Continental Shelf, including nature conservation.

Among marine experts, there is an apparent consensus that the Annexes 1 and 2 of the Habitat Directive will need to be amended in the future in order to include further marine habitat types and species.

3.4 Common Fisheries Policy (CFP)

The Common Fisheries Policy (CFP) has its origin in the European Community (EC) Treaty, however unlike the Common Agriculture Policy, there is no express reference to any 'common fisheries policy' in the EC Treaty (Owen 2004). The primary objective of the CFP is to ensure exploitation of living aquatic resources that provides sustainable economic, environmental and social conditions. The revised CFP framework regulation (EC No. 2371/2002) came into force on 1 January 2003. It makes the need for fisheries policy to take account of the impact of fishing activities on marine ecosystems more explicit, with the aim of the progressive implementation of an ecosystem-based approach to fisheries management. The revised CFP is intended, through the implementation of an environmental integration Action Plan, to have an improved focus on the wider marine environment. This should include the development of a long-term strategy to promote the protection of vulnerable species, such as cetaceans, sharks, and marine birds.

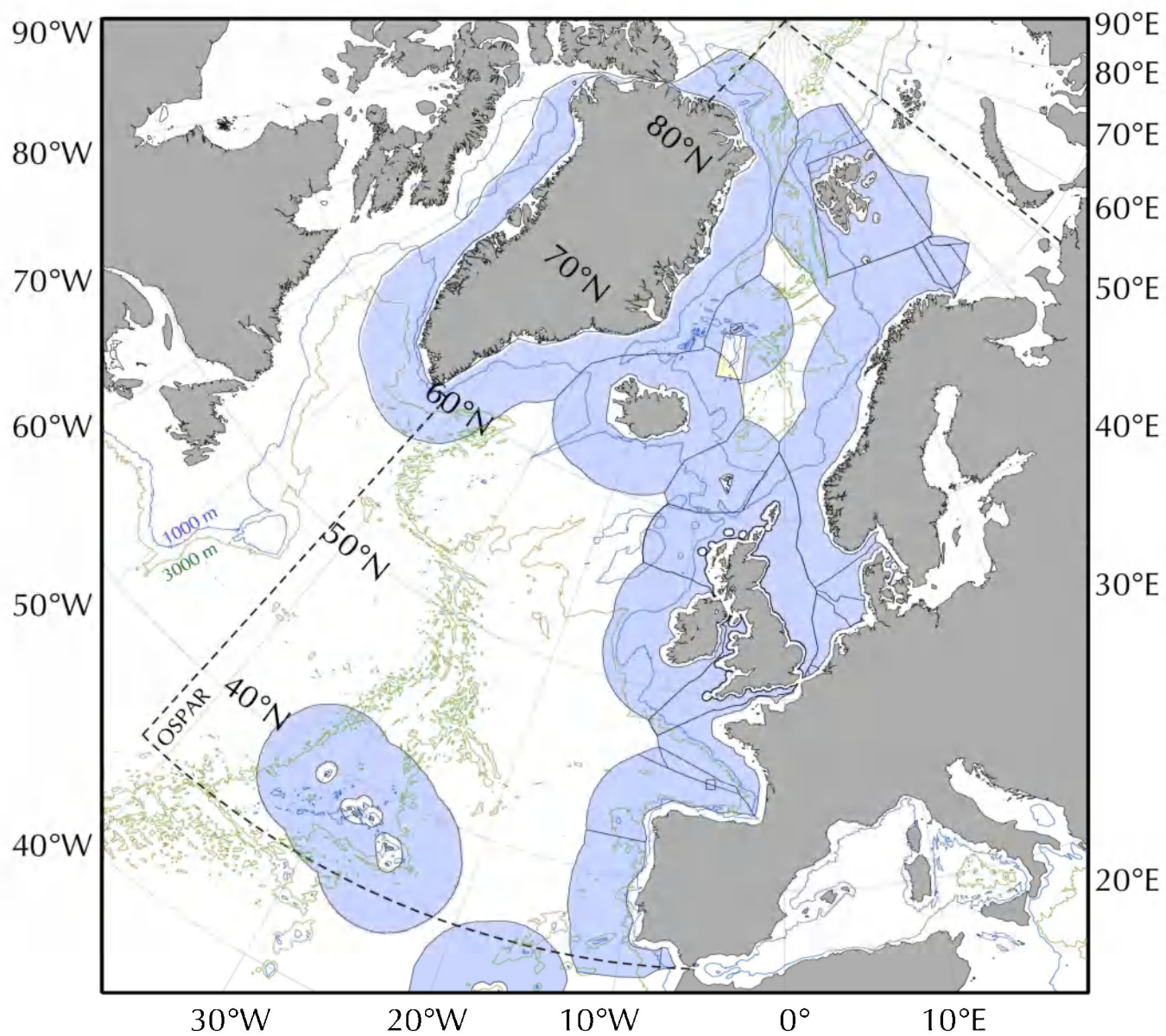


Figure 1: The OSPAR Maritime Area and the EEZs (blue) of the North-East Atlantic coastal states.
Source: © WWF / Sabine Christiansen

3.5 OSPAR

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) is an important regional agreement, which was adopted in 1998 after merging of the 1972 Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (the Oslo Convention) and the 1974 Convention for the Prevention of Marine Pollution from Land Based Sources (Paris Convention). Of high relevance for the creation of MPAs is the new Annex V to the OSPAR Convention on the “Protection and Conservation of the Ecosystems and the Biological Diversity of the Maritime Area” and a related Biodiversity Strategy, which

were adopted in 1998. It requires Contracting Parties to take the “necessary measures to protect and conserve the ecosystem and the biological diversity of the maritime area, and to restore, where practicable, marine areas which have been adversely affected” (Art. 2 Annex V). In 2003, the OSPAR Commission together with the neighbouring Helsinki Commission (HELCOM) adopted the ambitious target to develop and evaluate, by 2010, an ecologically coherent network of well-managed MPAs in the Maritime Area (see chapter 1.1.). To this end, OSPAR further adopted the first instrument and guidelines under the new Annex V (OSPAR 2003a).

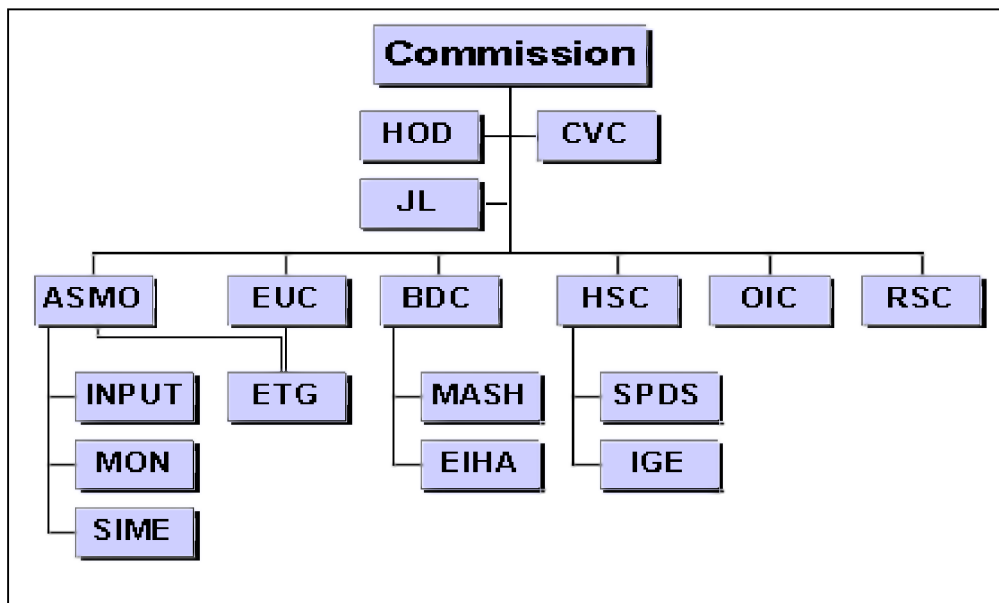


Figure 2: Structure of OSPAR. Source: OSPAR

Management and advice: Committee of Chairmen and Vice-Chairmen (CVC), Group of Jurists/ Linguists (JL), Heads of Delegation (HOD). Second tier level: Environmental Assessment and Monitoring Committee (ASMO), Eutrophication Committee (EUC), Biodiversity Committee (BDC), Hazardous Substances Committee (HSC), Offshore Industry Committee (OIC), Radioactive Substances Committee (RSC). Third tier level: Working Group on Inputs to the Marine Environment (INPUT), Working Group on Monitoring (MON), Working Group on Concentrations, Trends and Effects of Substances in the Marine Environment (SIME), Eutrophication Task Group (ETG), Working Group on Marine Protected Areas, Species and Habitats (MASH), Working Group on the Environmental Impact of Human Activities (EIHA), Working Group on Substances and Point and Diffuse Sources (SPDS), Informal Group of DYNAMEC experts (IGE).

3.6 Convention on Biological Diversity

The Convention on Biological Diversity was signed at the first Earth Summit held in Rio de Janeiro in 1992 to provide an international framework for the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of the benefits which arise out of the utilization of genetic resources. At present 188 countries are members to the treaty, among them the 25 member states of the EU. Only a very few states have not ratified the Convention (CBD 1992). Parties to the Convention meet biannually for the Conference of the Parties (COP), the most important decision-making body of the Convention. COP 7 took place in February 2004 in Kuala Lumpur, Malaysia. The signatory states, among others, committed themselves at this meeting to designating a system of representative, comprehensive and effectively managed MPAs by 2012. An open-ended working group was established which inter alia will assess the implementation and could lead to public private partnership funding of new protected areas (Beil 2004 pers. comm.). The working group will also address the establishment of MPAs outside national jurisdiction.

3.7 International North Sea Conference

The international conferences on the protection of the North Sea (North Sea Conference, NSC) are a series of international ministerial conferences concerned with the protection of the North Sea environment. They constitute a political forum that has adopted numerous environmental commitments dealing with a broad range of North Sea issues. The Fifth International North Sea Conference was held in March 2002 in Bergen, Norway. Ministers agreed that by 2010 relevant areas of the North Sea will be designated as MPAs belonging to a network of well-managed sites. The Ministers of the EU Member States stressed in Bergen that they will fulfil their obligations under the EU Habitats and Wild Birds Directives to protect species and nominate sites for the Natura 2000 network “without delay and implement management plans as soon as possible” (Fifth International North Sea Conference 2002).

3.8 ASCOBANS and Bonn Convention

The Agreement on the Conservation of Small Cetaceans of the Baltic and North Sea (ASCOBANS) was adopted in 1991 under the umbrella of the Convention on the Conservation of Migratory Species of Wild Animals (“Bonn Convention”). It aims at co-ordinating and implementing conservation measures for porpoises, dolphins and other small cetaceans in the Baltic and North Seas. Currently Belgium, Denmark, Finland, Germany, the Netherlands, Poland, Sweden and the United Kingdom are parties to the agreement.

3.9 Bern Convention

The Convention on the Conservation of European Wildlife and Natural Habitats (“Bern Convention”) aims at similar targets as NATURA 2000. It has particular importance for non-EU countries such as Norway. The Convention’s main objectives are to preserve wild flora and fauna as well as their natural habitats. Particular emphasis is given to the preservation of endangered and vulnerable species and to co-operation between states.

4. Obtaining co-ordinated planning and MPA management

MPA management largely consists of regulating and managing human activities and impacts. In transboundary sites, there is a greater risk of placing incompatible activities in neighbouring areas and of neglecting cumulative impacts on shared ecosystems. Co-operation during monitoring of conservation status, site selection and management planning procedures reduces this risk and helps create bi- or multilateral stewardship for shared sites. Furthermore, it helps integrate all relevant institutions in the planning process and increases the commitment and empowerment among stakeholders. In the context of transboundary MPAs, it is important to direct planning towards the achievement of common management objectives (Hamilton *et al.* 1996). Prior to establishing any transboundary management plan, MPA managers, scientists and relevant stakeholder groups should agree upon a common vision and key targets governing or outlining future MPA co-operation.

The following guidelines for enhanced planning and management are modified from Sandwith *et al.* (2001) and Europarc (2000) and have been adapted to reflect transboundary MPAs:

- Initiate a joint task group and planning process which involves MPA managers, representatives from national administrations, scientists and stakeholders of different user groups.
- Identify the conservation status of the area concerned.
- Formulate and agree upon a common vision, objectives, key targets, indicators and timelines for transboundary MPA management.
- Agree upon site boundaries and formulate a zoning plan for the whole transboundary MPA, based on a common vision, and assessments of conflicts, opportunities and resource value and distribution.
- Formulate joint MPA management plans and facilitate bi- or multilateral standing fora on transboundary management co-operation. The partners should establish mutual rules, guiding the co-operation, ensuring permanent exchange of information, enforcement, documentation of joint meetings, joint decision-making and conflict resolution.

- Prepare an overall MPA management plan, ensuring that activities and infrastructure or industry developments in all parts of the area comply with the stated management objectives.
- Develop common procedures for Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA), to ensure that human activities and developments on one side of the border are compatible with conservation and management objectives on the other side. As a minimum, development proposals or EIA/SEA reports should be submitted to the neighbouring countries.
- Implement joint research and monitoring programmes to assess the development of the area's environmental status.
- Jointly promote public information and education.
- Implement transboundary projects (e.g. on habitat conservation and/or resources management).

A set of generic recommendations for “transfrontier parks” has been outlined by the Federation of Nature and National Parks of Europe (see Box 1).

Box 1: Recommendation of the Federation of Nature and National Parks of Europe for transfrontier protected areas (Europarc 2000).

- Transfrontier parks should prepare joint integrated management plans for practical implementation.
- Effective working relationships should be developed at all levels, and resources should be provided to allow unrestricted co-operation.
- Where co-operation does not exist or restrictions are present, joint experimental projects should be initiated to try to develop mutual confidence with a view to future formal co-operation.
- Where differences between objectives are perceived, joint studies should be made to try to reconcile them.
- Transfrontier parks which work together in a successful manner, and thus make valuable contribution to international understanding and peace, merit special recognition. The Federation of Nature and National Parks of Europe will create an award for this purpose.

5. Achieving co-operative agreements

Transboundary co-operation between MPAs can vary in type and extent. It can range from personal contacts between park managers to formal international treaties, which launch the transboundary co-operation in MPA management (Hamilton *et al.* 1996). Informal liaison can create the basis for upgrading co-operation to greater formalization at a later stage. For transboundary MPA management to be effective in the long-term, evidence indicates that bi- or multilateral agreements should be established. Such forms of co-operation can be used to agree on objectives and guiding principles as well as to implement common management programmes. The following guidelines may help to achieve co-operative management agreements (modified from Sandwith *et al.* 2001):

- Promote co-operation between national and sub-national governmental and administrative agencies with involvement in a transboundary MPA. Make sure that counterpart institutions co-operate with one another.
- Clearly define the functions and responsibilities of different management agencies.
- Use and spread information on the existing international agreements on conservation and resource utilization, which can provide a basis for further reaching agreements.
- Evaluate the appropriate forms of co-operation agreement. Prior to adopting international agreements, it may be necessary to reach consensus between the different national key authorities and stakeholders on one side of a boundary. This can be particularly relevant for federal countries such as Germany.
- Formulate transboundary co-operation agreements. Agreements should be signed by political decision-makers and relevant managing bodies. Also consider options for an internationally designated MPA.

6. International examples of transboundary MPA co-operation

In the following paragraphs different examples of existing transboundary marine conservation schemes and MPA co-operation will be outlined. Despite apparent weaknesses such as a common lack of legal enforcement and implementation, these examples still offer valuable experiences in what worked well and what did not.

6.1 Trilateral Wadden Sea Co-operation

Denmark, the Netherlands and Germany have been working together since 1978 on the conservation of the Wadden Sea incorporating management, research and monitoring aspects, as well as political issues. In 1982, a Joint Declaration on the Protection of the Wadden Sea was adopted by which the three countries agreed to take steps to co-ordinate conservation activities and measures in the trilateral Wadden Sea area. In 1991, ecological targets and a guiding principle were adopted, the latter saying that the „guiding principle of the trilateral Wadden Sea policy is to achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way.“ A Trilateral Wadden Sea Plan was adopted in 1997. This plan functions as a framework for overall management and highlights how the countries envisage future co-ordinated management of the area. It includes policies, measures and actions which have been agreed to and need to be carried out in order to achieve the stated targets. Every 3-4 years trilateral governmental conferences are held, which represent the highest decision-making body in the framework. The standing Trilateral Working Group (TWG) also meets biannually and is composed of civil servants from the relevant national ministries and regional authorities. Observers from NGOs and stakeholder groups attend the meetings. The permanent Common Wadden Sea Secretariat was established in 1987 in Wilhelmshaven, Germany. It provides technical support and co-ordinates the activities of the Trilateral Co-operation.

In general, WWF considers the Trilateral Co-operation a very successful example of how to co-operate internationally to protect a shared nature area. Though the trilateral agreements are not legally binding, they had sufficient influence on national policies to ensure that laws of individual coastal states protect almost the entire Wadden Sea. However, many of the agreed targets have not been fully achieved yet. The issues of sustainable fishing, coastal engineering, extraction of raw material and the protection of the Wadden Sea estuaries in particular need more trilateral and national work. A trilateral regional understanding of the

Wadden Sea as one region is largely missing. At the 25 years anniversary of the Trilateral Co-operation in 2003, it was concluded that education should be developed during the years to come; a first pilot project has been started. It has been argued that it may be necessary to create a region-wide enforceable authority to deal with issues of quality and speed of compliance in trilateral agreements (see IAU 2003). The structure of the current international management body of the Trilateral Wadden Sea Co-operation is given in Figure 3.

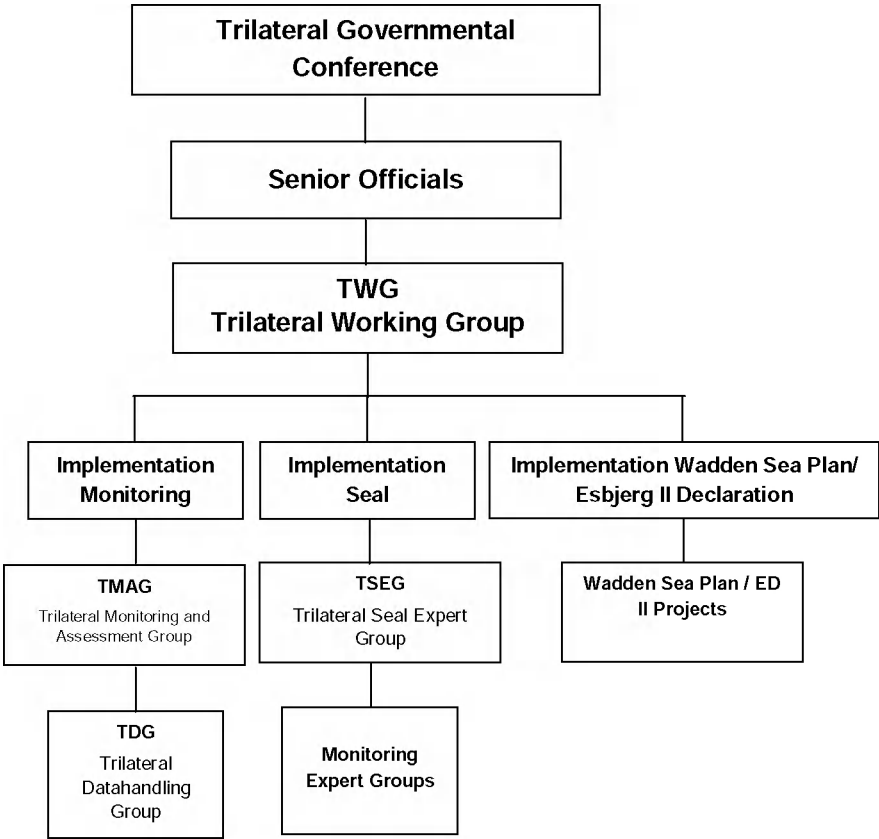


Figure 3: International management body of the Trilateral Wadden Sea Co-operation.
Source: Trilateral Wadden Sea Co-operation

6.2 Ligurian Whale Sanctuary

On 22 March 1993, the Environment Ministers of France and Italy and the Minister of State of the Monaco Principality made a joint declaration in Brussels for the creation of a sanctuary for marine mammals in the Mediterranean Sea. Whilst the three countries did not sign the agreement until a number of years later in 25 November 1999 and it still lacks true legal enforcement, the sanctuary nevertheless represents the first transboundary offshore MPA in the Northern Hemisphere to be established by several countries.

The sanctuary extends over 96000 km² and includes waters that have the legal status of internal waters, territorial waters and high sea. Its main objective is to protect eight cetacean species, which are found in the area.

The sanctuary was created within the framework of the “Barcelona system”, an UNEP/Regional Seas Programme which consists of the Convention for the Protection of the Marine Environment and Coastal Regions of the Mediterranean and six relating protocols. In 2002 the area was recognized as SPAMI (Specially Protected Areas of Mediterranean Interest) under the 1995 Protocol Concerning Mediterranean Specially Protected Areas and Biological Diversity in the Mediterranean.

The protocol is applicable to all marine waters, irrespective of their legal status as well as to the seabed and subsoil and to coastal terrestrial areas designated by each party. Its application to the High Seas involves overcoming some legal problems of the present legal and political conditions of the Mediterranean. Most coastal states have not yet designated EEZs and many maritime boundaries have not been agreed upon. Large parts of the Mediterranean, reaching beyond 12 nm, still have the status of High Seas. In order to cope with these legal issues the protocol contains two disclaimer provisions. Firstly, the establishment of transboundary co-operation in marine conservation cannot prejudice other legal questions. Secondly, the mere existence of legal issues should not compromise the adoption of necessary conservation measures.

Despite apparent implementation and enforcement problems, the designation of the Ligurian Whale Sanctuary as SPAMI provides regional recognition of

the area’s importance as well as the obligation for Contracting Parties to respect a future management plan (to be finished in 2005). The parties are to adopt measures to ensure a favourable conservation status of the marine mammal species and to protect them and their habitats from negative impacts. A suggestion by WWF France for an international management body for the Ligurian Whale Sanctuary is given in Figure 4.

6.3 Torres Strait

Established under the bilateral Torres Strait Treaty of 1985 between Australia and Papua New Guinea, the Torres Strait Protected Zone is an interesting example of transboundary MPA management, despite the time it has taken to formally agree on the treaty and native title issues (Sandwith *et al.* 2001).

The Protected Zone aims to preserve the land, sea and air of the Torres Strait, including its species and habitats. A prohibition on mining and drilling in the Protected Zone for ten years was agreed and later was extended for further eight years. The Treaty objective is to ensure that commercial fishing in the Protected Zone is carried out in a way that does not interfere with native traditional fisheries. The environmental provisions of the treaty are aimed at ensuring the well-being of the native people, managing sustainable and traditional fisheries as well as conserving the fragile Torres Strait ecosystem (ATNS 2003). The Torres Strait Protected Zone Joint Authority (PZJA) has the responsibility for overseeing the region’s fisheries and for the formulation of policies and plans for their management. It consists of the Commonwealth and Queensland fisheries ministers as well as representatives from the Torres Strait Regional Authority (Queensland Government 2003).

The state government of Queensland aims to introduce a pilotage requirement to the busy and navigationally demanding sea lane following a number of significant groundings in recent years. In 2003, the IMO approved in principle a proposal from Australia and Papua New Guinea for the extension of the Great Barrier Reef PSSA to cover Torres Strait Region. This provisional declaration represents a first step towards making navigation in the strait subject to mandatory pilotage (Lloyd’s List 2003).

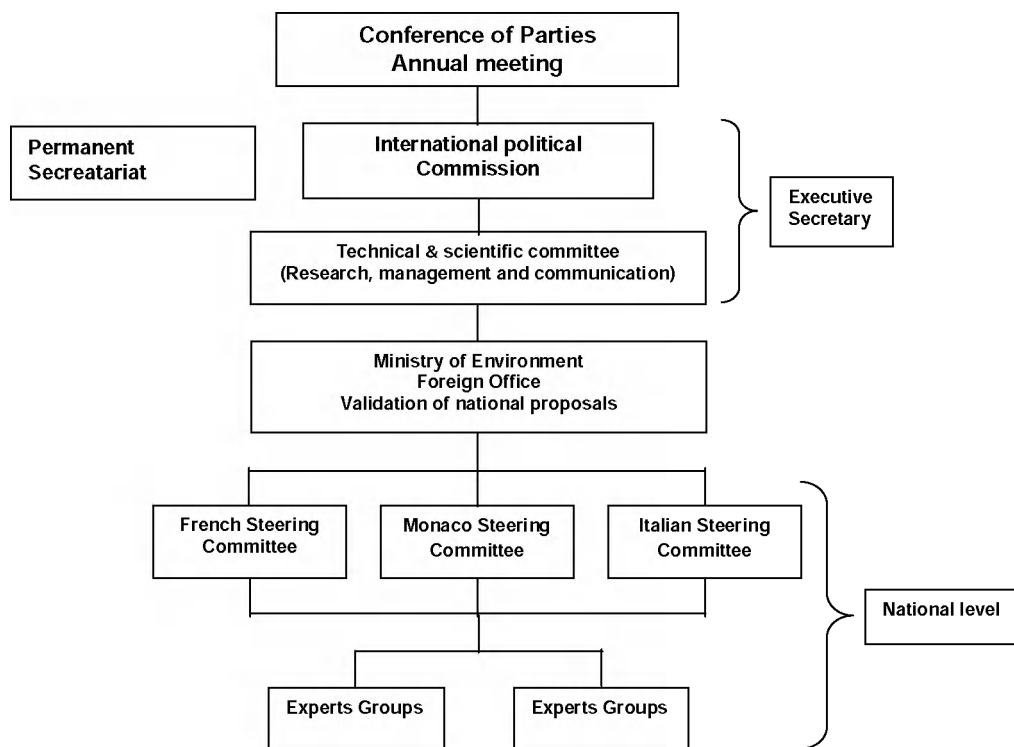


Figure 4: Planned international management body for the Ligurian Whale Sanctuary.
Source: WWF France

6.4 Gulf of Maine

The creation of a transboundary MPA, the Gulf of Maine International Ocean Wilderness, between Canada and the USA was proposed by several NGOs on both sides of the frontier which is also referred to as the “Hague Line” (see Task Force Atlantis 2003).

The proposal aims at setting aside a 20-mile wide MPA along the border in order to protect marine biodiversity and to safeguard scientific research in an undisturbed control or baseline area. The total area included in the linear strip would cover approximately 2000 square miles. In an effort for the area to be established as an undisturbed wilderness, NGOs have suggested using the USA-Canadian “Shared Border Accords of 1995”. A terrestrial precedent for USA-Canadian transboundary protected areas is the Waterton-Glacier International Peace Park which spans the Montana-Alberta border (Mc Garve and Willison 1994).

7. Potential transboundary MPAs in the North-East Atlantic

Heads of Government and States have repeatedly expressed their commitment to create a coherent and well-managed network of marine protected areas in European waters. Transboundary co-operation on site selection and management schemes is a clear necessity to achieve this goal. WWF has a long-standing interest in promoting marine conservation and marine protected areas and the WWF North-East Atlantic Programme has advocated the importance of the offshore marine environment in numerous studies and advocacy reports (see e.g. Gubbay 1996, 1998, 1999 and WWF 2000). The need for designating transboundary management schemes in the North Sea and Baltic Sea has been addressed by several WWF briefings of potential MPAs (see e.g. Andersson and Tveteraas 2002, Christiansen and Andersson 2001, Berry 1998).

WWF believes that it is now high time to begin transboundary MPA co-operation in a number of sites in European waters. The map of potential transboundary MPAs (Figure 5) indicates some areas,

which would benefit from future transboundary management co-operation.

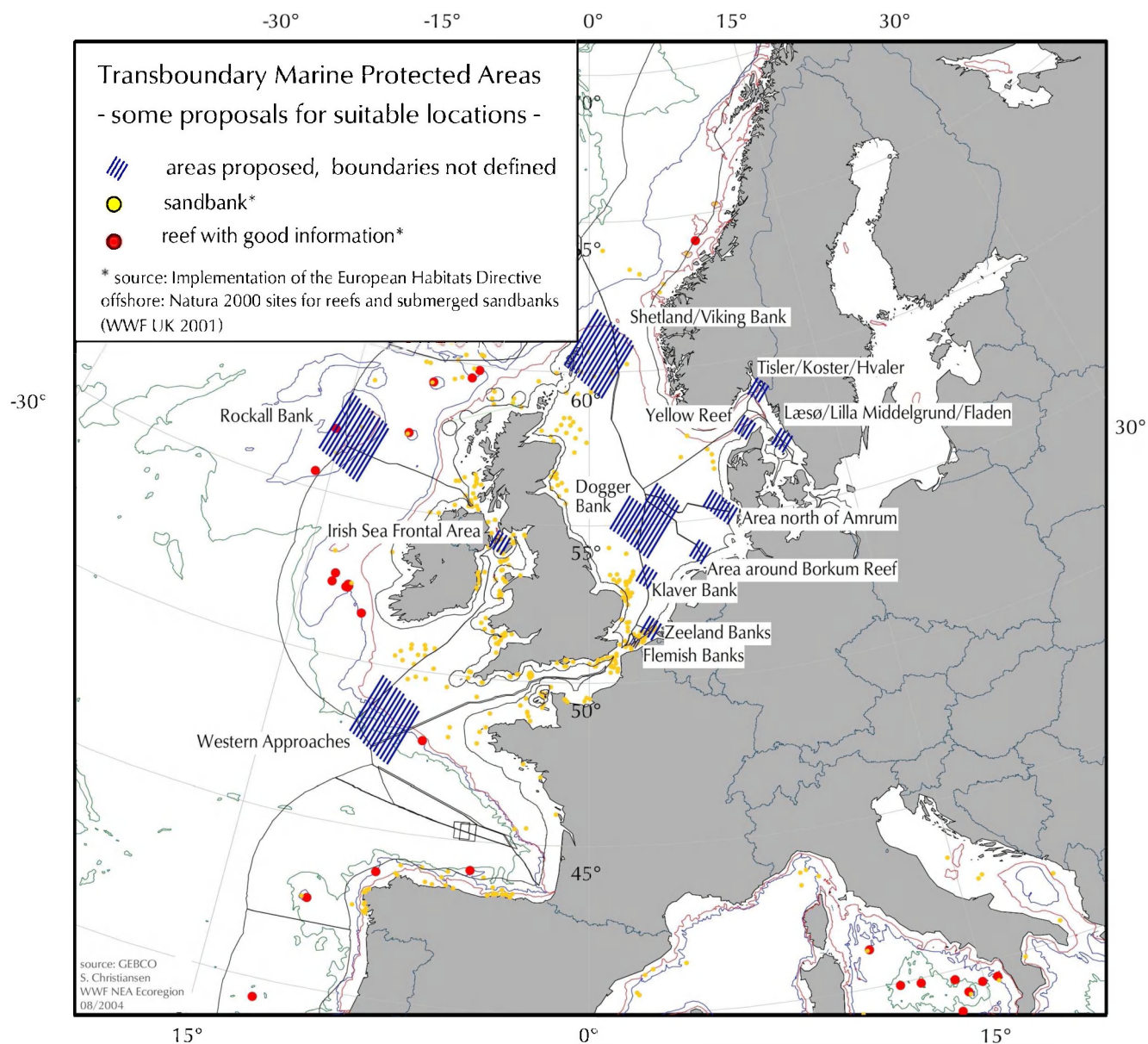


Figure 5: Map of potential offshore transboundary MPAs in the OSPAR and HELCOM areas.²

Source: © WWF / Sabine Christiansen

² This map shall facilitate discussion on transboundary MPA co-operation in relevant political fora. WWF is not claiming this map to be exhaustive. Instead, this map is meant as a starting point for discussion and it is likely that further sites will need to be included in future.

8. The Dogger Bank region

In its report “The Darwin Mounds and the Dogger Bank Case studies of the management of two potential Special Areas of Conservation in the offshore environment” (Gubbay *et al.* 2002), WWF identified and targeted the Dogger Bank area as a pertinent case to develop transboundary MPA management mechanisms in the legal and political context of the European Union (see chapter 3.4). Despite complications with respect to delimitation of site boundaries (i.e. incomplete knowledge of habitat and species distributions as well as partly diverging national definitions of habitat types), the report attempted to identify different options for potential SAC boundaries³.

European conservation agencies increasingly seek to enhance co-operation in managing transboundary MPAs. UK and Germany, both coastal states of the Dogger Bank area, have explicitly expressed their commitment to enhance transboundary MPA co-operation. The draft UK Offshore Marine Conservation Regulations stipulates co-operation with other Member States in order to co-ordinate the management of adjoining Natura sites (§16 The Offshore Marine Conservation Regulations, DEFRA 2003). The German Federal Agency for Nature Conservation (BfN) also aims to establish transboundary co-operation in managing adjoining SACs of different national jurisdiction. In order to effectively protect shared sites such as the Dogger Bank, BfN calls for the designation of an international SAC in the Central North Sea (BfN 2003).

In the following section, which greatly profited from Gubbay *et al.* (2002), an outline will be given of the Dogger Bank as a showcase example for transboundary MPA management in the North-East Atlantic region. Physical and ecological properties of the bank as well as respective national management frameworks will be described briefly in the following paragraphs before developing future perspectives and scenarios for management co-operation.

³ These options were by no means thought to be definite. They rather intended to facilitate a first discussion on this challenging issue.

8.1 Site description

The Dogger Bank is a shallow sea area in the southern central North Sea. It is about 300 km in extension and ranges in depth between 18 m to more than 40 m. The bank was probably formed by glacial activities and about 8000 years ago it constituted the southern border of the North Sea. The bank area is currently and historically has been important in terms of fisheries. Recently, it experienced a change in the benthic macrofauna communities, which could be the result of human disturbance such as bottom trawling (Kröncke and Knust 1995). The southern North Sea is also subject to hydrocarbon exploitation, with the potential need for future management considerations. Potential human uses such as sand and gravel exploitation and wind energy development are also likely to affect the area adversely (see Rachor and Günther 2001).

8.2 Sedimentary environment and hydrography

The Dogger Bank is composed of soft sediments, mainly fine sand with large quantities of shell debris. Muddy fine sands dominate the deeper parts around the bank. The hydrographical system of the Dogger Bank is driven by a diverse regime of currents, having a major impact on the circulation of the entire southern North Sea. Atlantic water masses from the north and currents from the English Channel mix and meet in the Dogger Bank area. Most of the water column therefore remains mixed throughout the year, even during the summer months. Such an area of regular upwelling of nutrient-rich bottom waters supports a high primary productivity, nourishing the higher trophic levels such as zooplankton, fish, birds and marinemammals.

8.3 Ecology

The vertical mixing of the water column results in a high degree of phytoplankton production over the bank during the whole year, representing an outstanding ecological feature in the southern North Sea. The bank is situated at the transgression of benthic communities, from those typical for the southern North Sea to those typical for the northern North Sea. It exhibits an important function as stepping-stone for benthic communities. Its macrofauna is characterized by a

community of the mollusc *Tellina fabula* in its central area and a community of the brittlestar *Amphiura filiformis* at its edges. The Bank used to be an important spawning ground for herring and was also important for skate and ray, but fisheries for these species have declined significantly since the late 1970s. However, there is evidence that herring are “re-using” spawning sites located at the south and southwest of the bank (Berry 1998). Recent accords by the BfN indicate that the Dogger Bank represents an important area for harbour porpoises (BfN 2003). The bank also has an important function as a feeding ground for seabirds. These include in particular fulmars, gannets, kittiwake, guillemot, razorbills and different gull species. Studies and monitoring programmes have shown that the greatest seabird densities are found outside the breeding season between September and February comprising of fulmars, herring gulls, great black-backed gulls and kittiwake (Berry 1998).

8.4 National management frameworks

When establishing transboundary management schemes for the Dogger Bank, a great variety of national management mechanisms must be taken into account. The existing management frameworks as well as relevant bodies and legal mechanisms for potential management actions of the Dogger Bank’s coastal states, i.e. Denmark, Germany, the Netherlands, and the UK, will be elaborated upon in the following

paragraphs. The structure of the overview tables below was modified from Gubbay *et al.* (2002).

8.4.1 Denmark

The Danish Nature Protection Law (1992) covers not only the terrestrial but also the marine environment and has already been used to designate Natura 2000 sites across Denmark’s territorial sea and EEZ. Despite the designation of a number of sites, no management measures and plans have so far been adopted (Andersson *et al.* 2003). In general, coastal areas within 1 nm off the shore or out to the depth of 6 m are in principle to be considered part of Local Authority (Danish County Councils) jurisdiction regarding environmental protection. This includes *inter alia* responsibility for the quality of ground and surface water and beach clean up after oil spills (Norcoast 2000). In Denmark there are no legal mechanisms for implementing marine spatial planning.

As the liberal Danish government from autumn 2001 reduced the staff of the National Forest and Nature Agency by 25%, progress in MPA management might become a challenge in future (Andersson *et al.* 2003). Danish governmental bodies argue that the EU Habitats and Birds Directives should be used as the legal framework for future MPA designation. In order to avoid duplication within OSPAR, Denmark is intending to forward Natura 2000 sites as MPAs to the OSPAR list (Andersson *et al.* 2003).

The Danish sector of the Dogger Bank - Management proposals, relevant bodies and national mechanisms

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
Fisheries	<ul style="list-style-type: none"> Regulation of fish stocks and fishing techniques (e.g. bottom trawling) 	EC, DK (MFLF)	Regulations through EU CFP, Salt Water Fisheries Law
	<ul style="list-style-type: none"> Reduction of incidental by-catch of cetaceans 	EC, DK (MFLF)	EC regulation on cetacean by-catch
	<ul style="list-style-type: none"> Routine patrolling for enforcement purposes 	MFLF, Fisheries Agency	National decision on deployment priorities
	<ul style="list-style-type: none"> Data collation on effort and landings specifically for the area 	DFU	National standard practice
Hydrocarbons	<ul style="list-style-type: none"> Regulation of hydrocarbon exploration and production. 	ØEM, Energy Agency	Sea Installations Law, Subsoil Law, Continental Shelf Law, Pipelines Law, Marine Environment Law, Nature Conservation Law
	<ul style="list-style-type: none"> Strategic Environmental Assessment (SEA) and Environment Impact Assessment (EIA) for oil and gas exploration and production in the region 		EC SEA Directive
Sand and gravel extraction	<ul style="list-style-type: none"> Regulation of sand and gravel extraction. 	MIM, Forest and Nature Agency, ØEM	Subsoil Law, Continental Shelf Law, Marine Environment Law, Nature Conservation Law
	<ul style="list-style-type: none"> SEA and EIA for sand and gravel extraction in the region 		EC SEA Directive
Offshore wind energy generation	<ul style="list-style-type: none"> Regulation of offshore wind energy generation. 	ØEM, Energy Agency, MIM, Forest and Nature Agency	Renewable Energy Law, Continental Shelf Law, Marine Environment Law, Nature Conservation Law
	<ul style="list-style-type: none"> SEA and EIA for offshore wind energy in the region 		EC SEA Directive
Cables and pipelines	<ul style="list-style-type: none"> Regulation of laying cables and pipelines. 	MIM, Forest and Nature Agency	UNCLOS, Sea Installations Law, Subsoil Law, Pipelines Law, Continental Shelf Law, Marine Environment Law, Nature Conservation Law
	<ul style="list-style-type: none"> SEA and EIA for laying cables and pipelines in the region 		EC SEA Directive
Shipping	<ul style="list-style-type: none"> Marine safety measures (e.g. PSSA, Traffic Separation Schemes) 	IMO, TM, DMA	UNCLOS, MARPOL, COLREG, SOLAS
	<ul style="list-style-type: none"> Prohibition of the dumping of wastes 		MARPOL, Marine Environment Law
	<ul style="list-style-type: none"> Regulation of ballast water exchange 		IMO Ballast Water Guidelines, International Ballast Water Management Convention

Potential management actions within the Danish EEZ of relevance to a potential transboundary Dogger Bank MPA

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
MPA designation	• Data collection on conservation status	MIM, Forest and Nature Agency	Regulation through EC Habitats and Birds Directive,
	• Designation of Marine Natura 2000 sites within the EEZ		Nature Conservation Law
	• Designation of a national MPA network in the EEZ		
Spatial planning	• Creation of spatial planning schemes for the North Sea	MIM, Forest and Nature Agency (Spatial Planning Dept.)	
	• Identification of areas of high natural value		
	• SEA including all economical activities within the EEZ		EC SEA Directive

COLREG: Convention on the International Regulation for Preventing Collisions at Sea; DMA: Danish Maritime Authority (Søfartsstyrelsen); EC: European Community, DFU: Danish Institute for Fisheries Research (Danmarks Fiskeriundersøgelses); MFLF: Ministry of Food, Agriculture and Fisheries (Ministeriet for Fødevarer, Landbrug og Fiskeri); MIM: Ministry of the Environment (Miljøministeriet); ØEM: Ministry of Economic and Business Affairs (Økonomi- og Erhvervsministeriet); SOLAS: Safety of Life at Sea Convention; TM: Ministry of Transport (Traffikministeriet).

8.4.2 Germany

The new Conservation Law of 2002 enables the establishment of MPAs in the German EEZ. In Germany, nature conservation in offshore areas beyond 12 nm is a responsibility of the federal government, whereas territorial and inshore waters belong to the jurisdiction of the respective coastal federal states (Hamburg, Lower Saxony, Schleswig-Holstein for the North Sea). However, all waterways (defined by the Federal Waterway Statute as the area between the coastline at medium high water and the seaward boundary of the territorial sea) are federal public property. Due to the legal fragmentation, integrated and ecosystem-based management of the German Sea area is a challenge. In order to achieve holistic management plans with its neighbouring countries it is important that Germany in the future strives to overcome the barriers of different jurisdictions within its own marine areas. A memorandum of understanding and mutual protocols between the German federal states and its national federal administration on how to proceed in transboundary MPA management should therefore be

adopted, including clear statements about national objectives and respective competencies.

To achieve uniform and efficient enforcement on both sides of the 12 nm zone, the German Advisory Council on the Environment, in its 2004 report “Marine Environment Protection in the North and Baltic Seas”, calls for the creation of an agency commissioned at federal level. Responsibilities for marine environment protection, shipping safety, fisheries, and also for coastal waters should be transferred to this agency (SRU 2004). So far no legislation for spatial planning in the EEZ has been adopted, however a Spatial Planning Law (ROG) applicable beyond 12 nm is under consultation. Currently some limited Environmental Impact Assessment (EIA) approaches are available for wind park construction.

In May 2004, the Federal Ministry for the Environment (BMU) submitted a list to the European Commission which includes ten sites in Germany’s EEZ designated under the EU Birds and Habitats Directives. Four of these sites are located in the North Sea (see Figure 6) and six in the Baltic Sea.

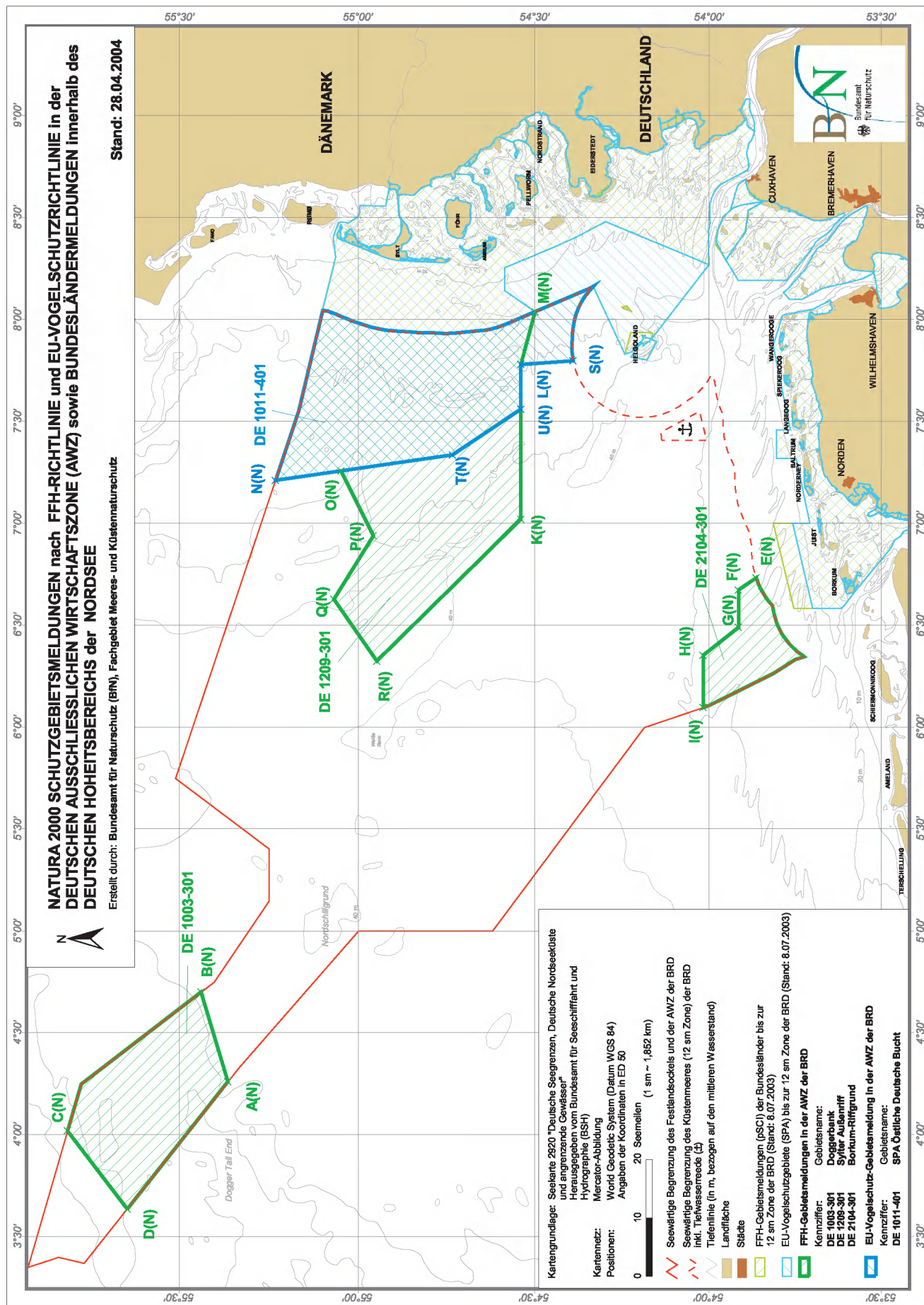


Figure 6: Designated Natura 2000 sites in the German EEZ (North Sea).
Source: BfN (2004)

In implementing the EU Habitats and Birds Directive in its EEZ, Germany advances the establishment of a European network of marine Natura 2000 sites. The next steps require that Germany agrees with its neighbouring countries on an ecologically founded and

contiguous delimitation of transboundary sites such as the Dogger Bank and moves forward in developing and implementing joint management plans.

The German sector of the Dogger Bank - Management proposals, relevant bodies and national mechanisms

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
Fisheries	• Regulation of fish stocks and fishing techniques (e.g. bottom trawling)	EC, GER (BMVEL)	Regulations through CFP EC regulation on cetacean by-catch
	• Reduction of incidental by-catch of cetaceans	EC, GER (BMVEL)	National decision on deployment priorities
	• Routine patrolling for enforcement purposes	BMVBW, BMVEL (BLE), Coastguard	
	• Data collation on effort and landings specifically for the area	ICES, BFAFI	National standard practice
Hydrocarbons	• Regulation of hydrocarbon exploration and production.	Oberbergamt Clausthal-Zellerfeld, BMU	BBergG, BNatSchG
	• Strategic Environmental Assessment (SEA) and Environment Impact Assessment (EIA) for oil and gas exploration and production in the region		EC SEA Directive
Sand and gravel extraction	• Regulation of sand and gravel extraction.	Oberbergamt Clausthal-Zellerfeld, BMU	BBergG, BNatSchG
	• SEA and EIA for sand and gravel extraction in the region		EC SEA Directive
Offshore wind energy generation	• Regulation of offshore wind energy generation.	BMVBW, BSH, BMU	SeeAnIV, EEG, BNatSchG
	• SEA and EIA for offshore wind energy in the region		EC SEA Directive
Cables and pipelines	• Regulation of laying cables and pipelines.	BMVBW, BSH, BMU, Oberbergamt Clausthal-Zellerfeld	UNCLOS, BBergG, BNatSchG
	• SEA and EIA for laying cables and pipelines in the region		EC SEA Directive
Shipping	• Marine safety measures (e.g. PSSA, Traffic Separation Schemes)	IMO, BMVBW, BSH, WSV	UNCLOS, MARPOL, COLREG, SOLAS
	• Prohibition of the dumping of wastes		MARPOL
	• Regulation of ballast water exchange		IMO Ballast Water Guidelines, International Ballast Water Management Convention

Potential management actions for the German EEZ of relevance to a potential transboundary Dogger Bank MPA

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
MPA designation	• Data collection on conservation status	BMU, BfN	Regulation through EC Habitats and Birds Directive, BNatSchG
	• Designation of Marine Natura 2000 sites within the EEZ	BMU, BfN	BNatSchG
	• Designation of a national MPA network in the EEZ	BMU, BfN, OSPAR	
Spatial planning	• Creation of spatial planning schemes for the North Sea (German EEZ)	BMVBW, BBR, BSH	ROG (draft EAG-Bau), BBergG, BNatSchG, SeeAnlV
	• Identification of areas of high natural value	BMU, BfN	
	• SEA including all economical activities within the EEZ		EC SEA Directive

BBergG: Federal Mining Law (Bundesberggesetz); BBR: Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung); BFAFI: Federal Research Centre for Fisheries (Bundesforschungsanstalt für Fischerei); BfN: Federal Agency for Nature Conservation (Bundesamt für Naturschutz); BLE: Federal Agency for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung); BMU: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit); BMVBW: Federal Ministry of Transport, Building and Housing (Bundesministerium für Verkehr, Bau- und Wohnungswesen); BMVEL: Federal Ministry of Consumer Protection, Food and Agriculture (Bundesministerium für Verbraucherschutz, Ernährung und Landwirtschaft); BNatSchG: Federal Nature Conservation Law (Bundesnaturschutzgesetz); COLREG: Convention on the International Regulation for Preventing Collisions at Sea; Draft EAG-Bau: Draft European Legislation Adjustment Law – Building (Entwurf Europarechtsanpassungsgesetz-Bau); EEG: Federal Renewable Energy Law (Erneuerbare-Energien-Gesetz); ROG: Spatial Planning Law (Raumordnungsgesetz); SeeAnlV: Sea Installations Regulations (Seeanlagenverordnung); SOLAS: Safety of Life at Sea Convention; WSV: Federal Waterway and Shipping Administration (Wasser- und Schifffahrtsverwaltung des Bundes).

8.4.3 The Netherlands

In the Netherlands the central administration has the responsibility for managing both the EEZ and territorial sea. The Netherlands claims a 12 nm territorial sea from the low-water mark and partly from a straight baseline⁴. The Dutch part of the Wadden Sea belongs to the country's internal waters where provinces and to a lesser extent municipalities function as administrative powers (OSPAR 2003b).

The most important legal instruments for the designation of MPAs in Dutch waters are the 1998 Nature Protection Act and the 1998 Flora and Fauna Act. The Nature Protection Act serves as the main legal instrument that provides protection to areas for nature conservation purposes. It also serves to implement

obligations resulting from international agreements and relevant EC legislation. The Flora and Fauna Act mainly deals with species conservation and both Acts are complementary. Although both Acts serve to align national environmental legislation with EC directives, a strategic system to initiate the establishment of Natura 2000 sites in the EEZ still appears to be lacking. There is currently debate on whether to make these Acts applicable to the whole Dutch part of the North Sea and also on the designation of offshore MPAs (Andersson *et al.* 2003). Neither applies so far to the Dutch EEZ (only to the Dutch territory, including the territorial sea). Other acts that apply to the entire Dutch part of the North Sea (such as the 2002 Mining Act or the 1996 Public Works Management Act that applies to different installations and structures) already enable the protection of certain offshore areas on a sectoral basis. The Ministry of Agriculture, Nature and Food Quality (LNV) has published a map of ecologically important

⁴ These straight lines are drawn between the islands and some of the river mouths and harbours and are not used as straight baselines in a legal sense.

areas in the Dutch part of the North Sea. Five areas, the Coastal Sea, the Frisian Front, the Dogger Bank, the Klaverbank and the Central Oyster Ground, were considered to be of particularly high ecological value (see Figure 7). Spatial planning in the North Sea will be part of the future 5th National Policy Document on Spatial Planning (Vijfde Nota Ruimtelijke Ordening), which is currently under consultation. This document identifies the North Sea as one of the main five regions

of the country (Dankers *et al.* 2003). Among others, the document prescribes the employment of the precautionary principle when assessing new activities, which may potentially have spatial impacts on the environment. Although this document has been completed since 2002, the lower house of the Dutch parliament has not yet ratified it.

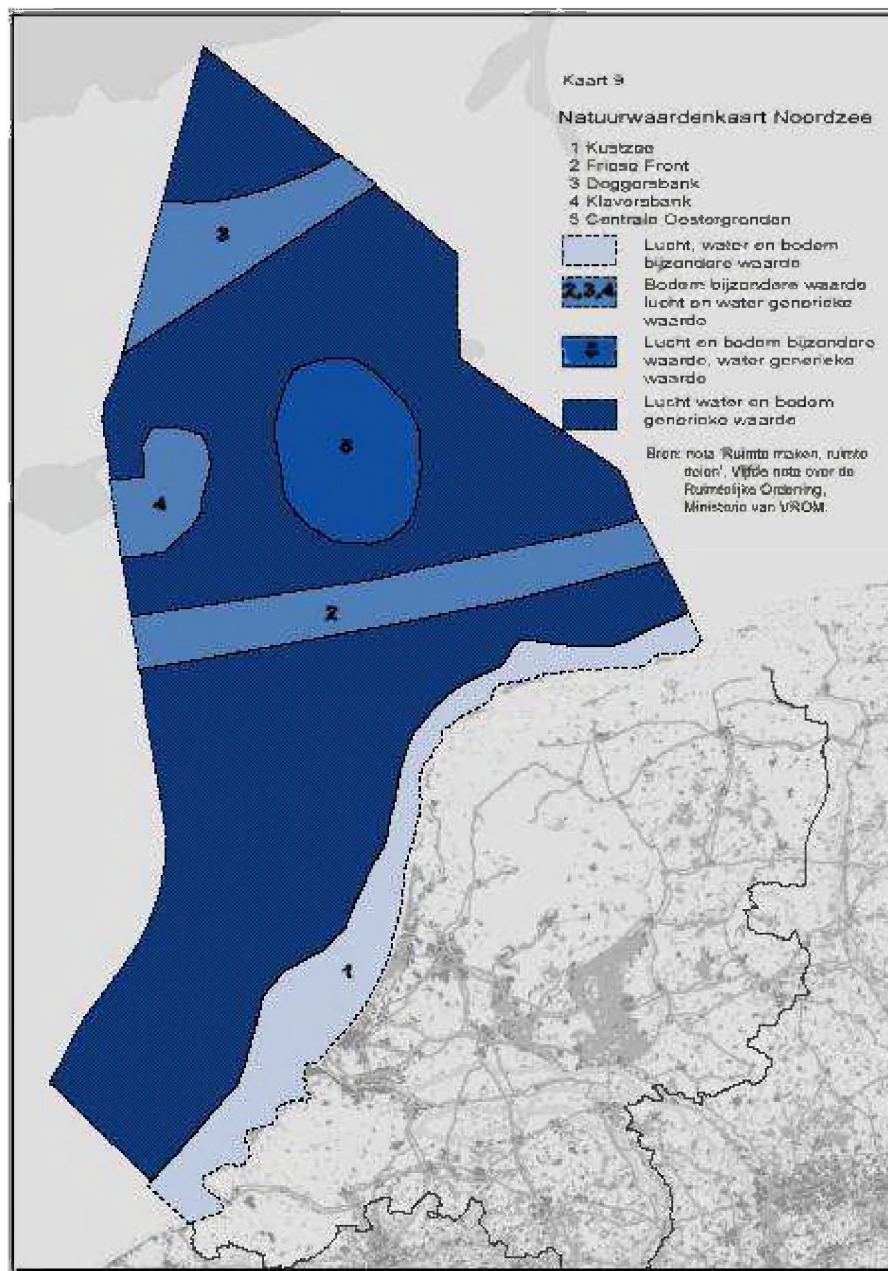


Figure 7: Areas with significant ecological value on the Dutch continental shelf.
 Source: LNV, Structuurschema Groene Ruimte 2

The Dutch sector of the Dogger Bank - Management proposals, relevant bodies and national mechanisms

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
Fisheries	<ul style="list-style-type: none"> Regulation of fish stocks and fishing techniques (bottom trawling) 	EC, NL (LNV)	Regulations through CFP
	<ul style="list-style-type: none"> Reduction of incidental by-catch of cetaceans 	EC, NL (LNV)	EC regulation on cetacean by-catch
	<ul style="list-style-type: none"> Routine patrolling for enforcement purposes Data collation on effort and landings 	LNV, Coastguard	National decision on deployment priorities
	<ul style="list-style-type: none"> specifically for the area 	ICES, RIVO	National standard practice
Hydrocarbons	<ul style="list-style-type: none"> Regulation of hydrocarbon exploration and production. 	EZ, VenW	2002 Mining Act
	<ul style="list-style-type: none"> Strategic Environmental Assessment (SEA) and Environment Impact Assessment (EIA) for oil and gas exploration and production in the region 		EC SEA Directive
Sand and gravel extraction	<ul style="list-style-type: none"> Regulation of sand and gravel extraction. 	EZ, VenW	1965 Surface Minerals Extraction Act, 2002 Mining Act
	<ul style="list-style-type: none"> SEA and EIA for sand and gravel extraction in the region 		EC SEA Directive
Offshore wind energy generation	<ul style="list-style-type: none"> Regulation of offshore wind energy generation. 	VenW, EZ	1996 Public Works Management Act, 1964 North Sea Installations Law, Draft 5th National Policy Document on Spatial Planning
	<ul style="list-style-type: none"> SEA and EIA for offshore wind energy in the region 		EC SEA Directive
Cables and pipelines	<ul style="list-style-type: none"> Regulation of laying cables and pipelines. 	EZ, VenW	1996 Public Works Management Act, 2002 Mining Act, UNCLOS
	<ul style="list-style-type: none"> SEA and EIA for laying cables and pipelines in the region 		EC SEA Directive
Shipping	<ul style="list-style-type: none"> Marine safety measures (e.g. PSSA, Traffic Separation Schemes) 	IMO, VenW	1988 Shipping Traffic Act, 1983 Prevention of Pollution from Ships Act, UNCLOS, MARPOL, COLREG, SOLAS, MARPOL
	<ul style="list-style-type: none"> Prohibition of the dumping of wastes 		
	<ul style="list-style-type: none"> Regulation of ballast water exchange 		IMO Ballast Water Guidelines, International Ballast Water Management Convention

Potential management actions for the Dutch EEZ of relevance to a potential transboundary Dogger Bank MPA

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
MPA designation	• Data collection on conservation status	EC, LNV	Regulation through EC Habitats and Birds Directive
	• Designation of Marine Natura 2000 sites (SACs and SPAs) within the Dutch EEZ		1998 Nature Protection Act, 1998 Flora and Fauna Act, SGR2
	• Designation of a national MPA network in the Dutch EEZ	LNV, OSPAR	
Spatial planning	• Creation of spatial planning schemes for the North Sea	VROM, VenW, National Planning Commission	1962 Spatial Planning Act (only Territorial Sea), Draft 5th National Policy Document on Spatial Planning
	• Identification of areas of high natural value		SGR2
	• SEA including all economical activities within the Dutch EEZ	LNV	EC SEA Directive

COLREG: Convention on the International Regulation for Preventing Collisions at Sea; EZ: Ministry of Economic Affairs (Ministerie van Economische Zaken); LNV: Ministry of Agriculture, Nature and Food Quality (Ministerie van Landbouw, Natuur en Voedselkwaliteit); RIVO: Netherlands Institute for Fisheries Research (Nederlands Instituut for Visserij Onderzoek); SGR2: Structure Plan for Green Areas 2 (Structuurschema Groene Ruimte 2); SOLAS: Safety of Life at Sea Convention; VenV: Ministry of Transports, Public Works and Water Management (Ministerie van Verkeer en Waterstaat); VROM: Ministry of Spatial Planning, Housing and Environment (Ministerie van VROM).

8.4.4 The United Kingdom

The United Kingdom has declared a territorial sea extending 12 nm from the baselines, but has not declared an Exclusive Economic Zone. Instead it has instituted a continental shelf jurisdiction (covering the sea-bed), a 200 nm fisheries jurisdiction (covering living marine resources) and a pollution jurisdiction (covering the enforcement of internationally agreed rules and standards for the prevention of pollution)⁵, thus covering the rights and jurisdictions of coastal States recognised by the UN Convention on the Law of the Sea, except that relating to marine research (OSPAR 2003b). The seaward boundaries of local authorities generally extend to the low-water mark of medium tides. In 1999, the UK High Court ruled that the EC Habitats and Birds Directive apply to both territorial waters and the UK Continental Shelf superjacent waters. Subsequently, the UK has taken the

lead among EU Member States as regards Natura 2000 in the marine environment. So far the focus in the UK has been set on inshore sites, however, with the Draft Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2003, appropriate legislation for the designation of offshore MPAs is imminent. Several strands of work are preparing the designation of offshore SACs on the UK Continental Shelf. The Joint Nature Conservation Committee (JNCC), together with the country nature conservation agencies, the Department of Environment, Food and Rural Affairs (DEFRA), the Department of Trade and Industry (DTI) and other governmental bodies are working on an “Offshore Natura 2000 project”. The project *inter alia* intends to identify relevant habitats and species and consider site selection under the Birds and Habitats Directives (Gubbay *et al.* 2002). The UK government focuses on the completion of a network of sites under Natura 2000 and so far no sites have been established under OSPAR, but the government recognizes the need for an OSPAR MPA network being complementary to

⁵ The Continental Shelf Act 1964 (1964), Fishery Limits Act (1976) and the Merchant Shipping Act (1995).

Natura 2000 (Andersson *et al.* 2003). An ecosystem-based approach to the management of marine activities is recognised as being fundamental to achieving stewardship of UK seas. The governmental report *Safeguarding our Seas* (DEFRA 2002) clearly underlines this commitment. In addition the recent protection of the Darwin Mounds from bottom trawling by a European Council Regulation adopted 22 March 2004 set a precedent case study.

In recent years the UK Department of Trade and Industry (DTI) has implemented a sectoral SEA sequence relating to the environmental implications of

licensing parts of the North Sea (and other UK waters) for Oil and Gas activities. By implementing SEAs, the DTI is following the EC SEA Directive (2001/42/EC), which requires an environmental assessment to be carried out for planned activities which are likely to have a significant environmental impact. The UK part of the Dogger Bank area is covered by the SEA 2 process for offshore oil and gas licensing, providing important information for the adoption of future management measures (DTI 2001).

Potential management actions for the UK EEZ equivalent of relevance to a potential transboundary Dogger Bank MPA

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
MPA designation	• Data collection on conservation status	EC, DEFRA,	Regulation through EC Habitats and Birds Directive
	• Designation of Marine Natura 2000 sites within the EEZ	JNCC	Offshore Marine Conservation (Natural Habitats) Regulations 2003 (in consultation)
	• Designation of a national MPA network in the EEZ	DEFRA, JNCC	
Spatial planning	• Creation of spatial planning schemes for the North Sea	ODPM	
	• Identification of areas of high natural value	DEFRA, JNCC	
	• SEA including all economical activities within the EEZ	DTI	EC SEA Directive

COLREG: Convention on the International Regulation for Preventing Collisions at Sea; DEFRA: Department for the Environment, Food and Rural Affairs; DTI: Department for Trade and Industry; DfT: Department for Transport; HMCG: Coast Guard; ICPC: International Cable Protection Committee; JNCC: Joint Nature Conservation Committee; MCA: Maritime and Coastguard Agency; ODPM: Office of the Deputy Prime Minister; Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001; SERAD: Scottish Executive Rural Affairs Department; UKCPC: The UK Cable Protection Committee

The UK sector of the Dogger Bank - Management proposals, relevant bodies and national mechanisms

Activity	Potential Management Action	Relevant bodies	Important legal mechanisms and international agreements
Fisheries	<ul style="list-style-type: none"> Regulation of fish stocks and fishing techniques (e.g. bottom trawling) 	EC, UK (DEFRA)	Regulations through EU CFP
	<ul style="list-style-type: none"> Reduction of incidental by-catch of cetaceans 	EC, UK (DEFRA)	EC regulation on cetacean by-catch
	<ul style="list-style-type: none"> Routine patrolling for enforcement purposes 	DEFRA, SERAD, Navy, HMCG	National decision on deployment priorities
	<ul style="list-style-type: none"> Data collation on effort and landings specifically for the area 	ICES, CEFAS	Standard practices
Hydrocarbons	<ul style="list-style-type: none"> Regulation of hydrocarbon exploration and production. 	DTI	Licence Conditions, Petroleum Act, Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 EC SEA Directive
	<ul style="list-style-type: none"> Strategic Environmental Assessment (SEA) and Environment Impact Assessment (EIA) for oil and gas exploration and production in the region 	DTI	
Sand and gravel extraction	<ul style="list-style-type: none"> Regulation of sand and gravel extraction. 	DTI, ODPM, Department of Rural Affairs (for Scotland)	Licence Conditions, Crown Estate Act
	<ul style="list-style-type: none"> SEA and EIA for sand and gravel extraction in the region 	DTI	EC SEA Directive
Offshore wind energy generation	<ul style="list-style-type: none"> Regulation of offshore wind energy generation. 	DTI, DEFRA, DfT	Electricity Act, Environmental Protection Act, Coast Protection Act, EC SEA Directive
	<ul style="list-style-type: none"> SEA and EIA for offshore wind energy in the region 		
Cables and pipelines	<ul style="list-style-type: none"> Regulation of laying cables and pipelines. 	DTI, DfT, ICPC, UKCPC	UNCLOS, Petroleum Act, Pipelines Act, Coast Protection Act
	<ul style="list-style-type: none"> SEA and EIA for laying cables and pipelines in the region 	DTI	EC SEA Directive
Shipping	<ul style="list-style-type: none"> Marine safety measures (e.g. PSSA, Traffic Separation Schemes) 	IMO, MCA, DfT	UNCLOS, MARPOL, COLREG, SOLAS
	<ul style="list-style-type: none"> Prohibition on the dumping of wastes 	DEFRA	MARPOL, Environmental Protection Act
	<ul style="list-style-type: none"> Regulation of ballast water exchange 		Merchant Shipping Reg., IMO Ballast Water Guidelines, International Ballast Management Water Convention

9. The Dogger Bank – scenarios for transboundary MPA co-operation

The establishment of transboundary MPAs can be carried out according to two different scenarios. In most cases they will be designated as separate MPAs by the individual countries before being designated as a transboundary MPA. However, it is feasible for a transboundary MPA to be jointly created by neighbouring countries in a single step. In each scenario, however, a transboundary reserve will be most effective by establishing a joint co-ordination framework. It should incorporate the relevant administrations and governmental bodies and authorities which have functions or duties with respect to the site and adjacent area. It should also include other stakeholders such as scientific boards and interested and affected groups including NGOs (see UNESCO 2000). The political framework for transboundary MPAs will vary from case to case and it is important to consider the appropriate form of co-operation. Frameworks may be strengthened or modified over time and should be adaptive to reflect changes in political awareness, and scientific knowledge.

Options for transboundary agreements (Sandwith *et al.* 2001) include:

- Administrative mechanisms and instruments such as memoranda of understanding between key agencies, departments and ministries.
- A formal treaty or multilateral agreement which binds the parties to long term co-operation.
- Limited agreements to address more specific issues such as protocols and contingency plans, dealing with pollution or incidents such as shipping safety and oil spills.
- Representation of national experts and senior officials on each other's advisory or management body.
- Establishment of a transboundary protected area policy advisory committee, which includes all relevant stakeholders.

To ensure the long-term effective management of a potential transboundary Dogger Bank MPA, WWF recommends the establishment of a joint co-ordination body.

However, existing political frameworks and regimes should be used as much as possible, at all geopolitical levels (global, regional, sub-regional, and national). At a global level, the United Nations Convention on the Law of the Sea (UNCLOS) as well as the International Maritime Organization (IMO) provide a framework of international maritime conventions (e.g. MARPOL, SOLAS and COLREG). Key arrangements at the regional level are the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic and the EC Birds and Habitats Directives. The Common Fisheries Policy (CFP) of the European Union is the key mechanism to address the implementation of regulations concerning fish stocks and fishing techniques. At subregional level, the North Sea Ministerial Conferences focuses on environmental issues which have an impact on the North Sea region.

The international organisations, legal and political regimes mentioned above illustrate how marine environmental protection is addressed at different levels. For transboundary MPA management mechanisms, the different regimes will need to be compatible and, in the ideal case, mutually supporting and synergistic. The way in which regimes and management mechanisms interact and fit together can be described as a “Russian doll” (Sadowski 1997) with the broader global regimes encompassing the narrower regional regimes, which in turn encompasses the even narrower sub-regional agreements. Long-standing experience with the “Russian doll” like interactions of environmental regimes indicate that co-operation in the North-East Atlantic region is rather fruitful and complementary without fundamental legal or administrative problems (see Sadowski 1997). The narrower North Sea co-operation has acted as a motor for some management issues while fine-tuning and specification have taken place within the OSPAR context (Andresen 1996). Environmental agreements can often be more effectively concluded in smaller fora and then forwarded to larger fora for adoption on a wider scale. In this respect, the development of site-specific transboundary MPA management mechanisms, which are embedded in subregional, regional and global regimes, could possibly serve as incitement for marine conservation in a wider context.

The German Advisory Council on the Environment recommended that relationships be uphold between EU and international agreements under OSPAR and NSC. The initiator and pioneer role of OSPAR and NSC in marine environment protection should be supported by the EU which in future should make greater use of its legislative power and enforcement authority (SRU 2004). In the following paragraphs, the integration of transboundary MPA management mechanisms for the Dogger Bank into OSPAR and EC legislation will be outlined.

9.1 Integration into OSPAR

The development of an effective mechanism for the transboundary management of the Dogger Bank requires the adoption of multi-disciplinary ecosystem-based and bioregional management approaches. Ecosystem-based management creates opportunities to manage the marine environment in a holistic way taking into account both ecosystem and socio-economic

objectives. In 2000, the OSPAR Commission published the latest Quality Status Report (QSR) for the entire Maritime Area as well as five regional reports (rQSR) which assessed the environmental status of each of the OSPAR Regions (see e.g. OSPAR 2000). To date, the organizational structure of OSPAR does not adequately facilitate the implementation of regionally specific results and recommendations emerging from those rQSRs. Ecosystem-based management demands a regional approach, whereby detailed measures can be tailored to the particular marine ecosystem (Symes and Pope 2000). WWF has suggested developing effective mechanisms and frameworks for the implementation of integrated ecosystem approaches in the OSPAR regions (WWF 2001). WWF promotes the reform and reorganisation of already existing structures, avoiding an unnecessary increase in environmental bureaucracy. Figure 8 shows the possible structure of a regionalized organization of the OSPAR Biodiversity Committee (BDC).

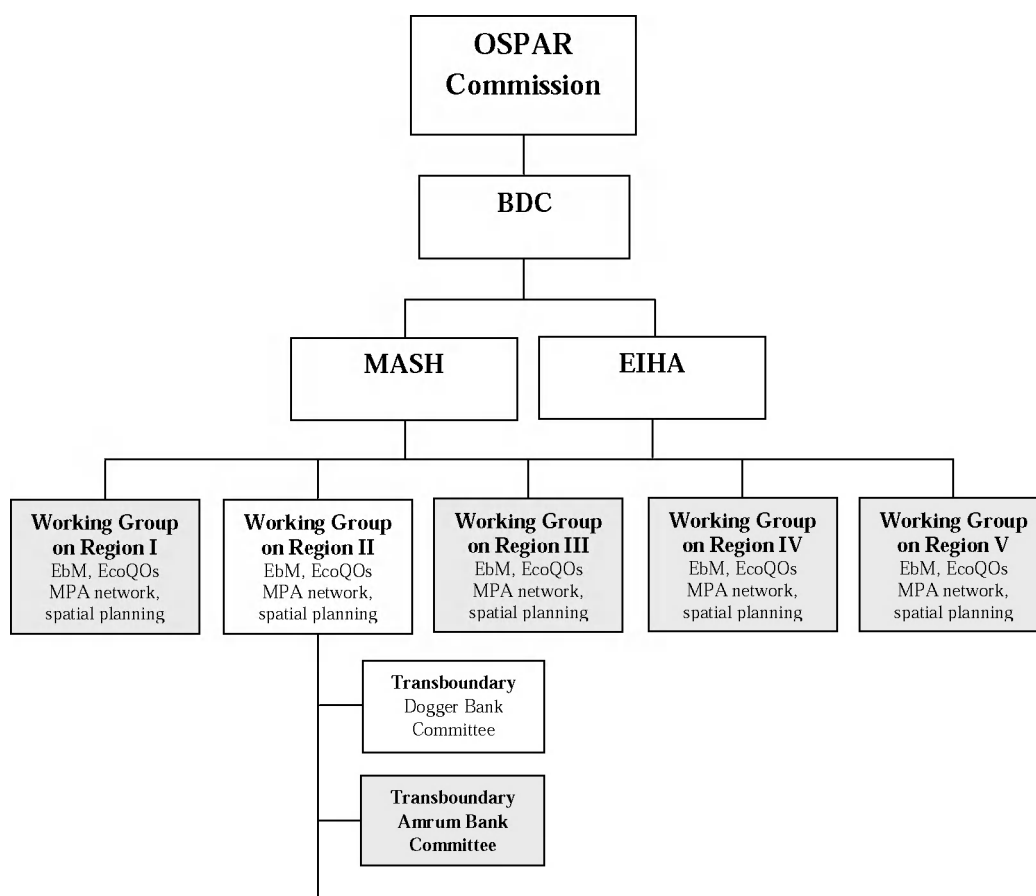


Figure 8: Potential structure of a regionalized structure of the OSPAR BDC

Under BDC five additional working groups representing the five OSPAR regions should be set up. The working groups could undertake measures to promote policy cohesion, to foster institutional co-operation, to design and implement integrated programmes and to adopt focused strategies in a regional context. The overarching principle would be the implementation of an ecosystem-based approach to management as agreed by North Sea Ministers in 2002 and OSPAR Ministers in 2003, and as foreseen in the emerging European Marine Strategy (EMS). The implementation of operational management targets derived from regionally agreed Ecological Quality Objectives (EcoQOs) will have to be complemented by regionally co-ordinated assessment, delivery and control mechanisms. For example, spatial planning, including the creation of a coherent network of MPAs, is an important tool of ecosystem-based management. The regional working groups could be responsible for a co-ordinated implementation of transparent Strategic Environmental Assessment (SEA) and Environmental Impact Assessments (EIA) processes, involving all relevant user groups and stakeholders in the region.

Management plans for national and transboundary MPAs should be presented to the regional working groups and submitted to the OSPAR committees and Commission for adoption. Such a regional approach provides for the co-ordinated development of regional management standards and tools for comparable habitats and species to be protected in MPAs.

Following their approval, the national authorities of the respective countries should implement these plans.

The management of transboundary MPAs such as the Dogger Bank involves a mix of international, national, and regional bodies. There is a risk of confusion especially over who should take the lead function on certain issues due to a general lack of experience in managing such sites. Joint management plans mutually agreed upon by the coastal States - i.e. Denmark, Germany, the Netherlands, and the United Kingdom - would assign respective roles and guarantee national compliance with the adopted measures (Gubbay *et al.* 2002). The creation and implementation of such management plans should be addressed in particular area committees (such as a Transboundary Dogger

Bank Committee) comprising national officials and experts, and should subsequently be submitted to the respective regional working group. A binding multilateral agreement or memorandum of understanding should be adopted by the parties of the area committees. It should include common management objectives and visions, as well as mutual terms of reference guiding the co-operation and ensuring enforcement and joint decision-making. Such an agreement should oblige the Contracting Parties to long-term co-operation. Supranational bodies and their policies (e.g. IMO, EU CFP and Habitats and Birds Directives, and NSC) should be integrated into the area committees' work and decision-making processes by reporting and delegation.

9.2 Integration into EC legislation

9.2.1 EC Birds and Habitats Directives

The establishment of a transboundary Dogger Bank MPA closely relates to the application of the EC Birds and Habitats Directives and the implementation of the Natura 2000 network. "The concept of a network of protected areas is based on the principle of transfrontier co-operation. It works at the bio-geographical level, which does not consider political borders. The European Commission is trying to encourage Member States to propose Natura 2000 sites at borders" (Julien 2000). The Dogger Bank includes habitat types and species that are listed in the Habitats Directive and is therefore a potential location for a future Special Areas of Conservation (SAC). As the bank extends into the EEZs of Denmark, Germany, the Netherlands, and the UK, all four countries should aim at integrating their part of the bank into the Natura 2000 network in order to preserve its structural and functional integrity. To avoid loopholes, it is very important that all of the national governments adjust their proposals during the designation process. So far only the German Federal Government has proposed their part of the Dogger Bank, the so-called Tail End, as pSCI (proposed Site of Community Interest). The German Federal Agency for Nature Conservation (BfN) suggested that the Tail End qualifies as future Natura 2000 site, as it represents a "sandbank which is slightly covered by sea water all the time" (Habitat Type 1110) (BfN 2003). The UK has

already started a process to evaluate its part of the Dogger Bank as Natura 2000 site; however, designation will not be accomplished until the draft UK Offshore Marine Conservation Regulations are adopted. The Netherlands and Denmark are apparently both still waiting until issues related to the EC sandbank definition are resolved before starting the designation process (Gubbay *et al.* 2002).

In order to create a contiguous international Dogger Bank SAC, avoiding fragmentation and larger loopholes, transboundary co-ordination efforts among the respective national authorities are needed during the ongoing designation processes.

9.2.2 Common Fisheries Policy (CFP)

Despite political agreement between the EU and its Member States to protect Europe's marine environment, progress to date in marine conservation has been limited. This is particularly the case in terms of impacts of fisheries on marine biodiversity. A major reason for the limited progress is the unclear distribution of competencies in terms of restrictions on fisheries, namely between the EU and its Member States. Whereas nature conservation clearly is a shared responsibility between EU and Member States, fisheries is an EU domain alone (Owen 2004). Difficulties arise where fisheries and conservation interfere. It has been argued that in cases where there is an overlap between fishing and conservation, measures to protect marine habitats and species should only be taken under the CFP. This, however, would not only exclude the Member States from their rights in important areas of conservation but could also be used as an excuse for not fulfilling duties arising under other EC instruments such as the Habitats and Birds Directives. Based on case law of the European Court of Justice, Owen (2004) argued that in the face of threats to nature conservation posed by activities of fishing vessels permitted under the CFP, a coastal State is not entitled to avoid its obligations under the Habitats and Birds Directives. Currently, the Member State is faced with the question whether to try action inside or outside the CFP, and so far it is legally unclear as to which of these options is correct in law (Owen 2004).

A first cold water coral area was protected using emergency measures as a new instrument under the

CFP preceding a permanent technical regulation to remove the main threat from trawling operations as an example of an integrated approach of environmental concern within the CFP⁶.

With respect to a regionalization of OSPAR, one also has to consider the planned regionalization of the Common Fisheries Policy (CFP). The European Commission is setting out a framework for stakeholder-led Regional Advisory Councils (RACs) covering five regions and the pelagic stocks of all regions. The six RACs will give scientific recommendations and advice to the Commission and Member States on how specific fisheries can be managed effectively. In order to achieve an integrated management system for the North-East Atlantic in the long-term, the RACs should necessarily be better adapted to the OSPAR regions. In the case of the North Sea, however, OSPAR Region II and RAC North Sea happen to largely match each other. Also, the regional framework to be developed by the European Commission for the implementation of an ecosystem-based approach to management should be in line with existing regions and ecologically based subregions.

10. Conclusions and Outlook

In order to create a coherent network of well-managed marine protected areas, as intended by OSPAR in the North-East Atlantic by 2010 and globally by the World Summit on Sustainable Development and the CBD by 2012, transboundary and ecosystem-based MPA management approaches need to be developed and put in place.

Transboundary MPA co-operation facilitates both ecosystem-based and integrated management approaches, more cost-effective research and monitoring, legal enforcement, and also the cross-

⁶ In August 2003, the European Commission adopted emergency measures immediately banning the use of bottom trawled gear in an area, known as the Darwin Mounds, some 180 kilometres off the north-west coast of Scotland. This measure is designed to protect unique cold water corals, which were under direct threat from bottom trawling. The request for Commission action came from the United Kingdom under the reformed the Common Fisheries Policy (CFP). In March 2004, the Council adopted a permanent bottom trawling ban for the Darwin Mounds.

border control of problems such as marine pollution and damage from navigation. However, issues such as different national legal and administrative systems, varying national commitments to marine conservation or residual economical interests, and differential ratification of international protocols or conventions will need to be overcome.

Today, marine conservation in the Dogger Bank area is addressed by a great number of regimes and legal bodies acting at different geopolitical levels (i.e. global, regional, subregional, and national). In order to create effective management mechanisms for transboundary MPAs such as the Dogger Bank, the decision-making processes and new management structures will need to be integrated in the existing framework of environmental regimes in a way that is mutually beneficial.

In this study it is proposed that future management mechanisms and bodies of transboundary MPAs be integrated within the OSPAR process, and that relevant EU policies (e.g. CFP) and directives (Habitats and Birds Directives) be aligned. The proposal outlines the establishment of five regional working groups under the OSPAR BDC process, which address the implementation of ecosystem-based management approaches including the creation of a coherent network of MPAs, the implementation of Ecological Quality Objectives and spatial planning. While management of MPAs in national waters is usually addressed by the individual country authorities, the creation and implementation of management plans for transboundary MPAs should take place through multilateral area committees, e.g. a Transboundary Dogger Bank Committee. Such committees should consist of experts and senior officials of the relevant coastal states and should possess direct links to supra-national bodies such as the EC and IMO.

The relevant parties should adopt a multilateral agreement or memorandum of understanding, which includes a vision and management objectives. Other components would include mutual terms of reference guiding the co-operation, ideally with a timeframe for action, and ensuring its enforcement. To achieve OSPAR's goal to create a coherent network of well-managed MPAs by 2010, it is now time to start the

planning and decision-making process for the creation of transboundary MPA management mechanisms.

For a rapid phase-in of transboundary MPA management in the Dogger Bank area the following steps should be taken and completed respectively:

- Initiate a joint task group, involving MPA managers, representatives from national administrations, scientists and stakeholders from Denmark, Germany, the Netherlands, and the United Kingdom.
- Agree upon common visions, objectives, key targets and timelines for transboundary MPA management.
- Propose a contiguous Dogger Bank Site of Community Interest (pSCI) under the EC Habitats Directive and as a second step jointly nominate the area as a candidate OSPAR MPA to the BDC working group on MPAs, Species and Habitats (MASH).
- Initiate joint monitoring and assessment procedures.
- Determine its interplay with other legal obligations (e.g. the EU Common Fisheries Policy) and environmental regimes (e.g. OSPAR) and agree on the formal and legal structure of the co-operation framework (as e.g. suggested in chapter 8.3.1).
- Address the existing administrative and legal problems within the relevant coastal states (e.g. the fragmentation of national marine management authorities) and align national and EC legislation with transboundary and integrated MPA management.
- Formulate and agree upon a multilateral agreement or a memorandum of understanding on a transboundary Dogger Bank MPA.
- Agree on a zoning and MPA management plan.
- Implement and enforce the management plan.

11. References

- Andersson, Å.; Champion, A.; Christiansen, S.; Lindström-Battle, J.; Schmidt, S. (2003): Do Governments Protect the Treasures of Our Seas? Measuring Progress on Marine Protected Areas. WWF Germany, Frankfurt/Main.
<http://www.wwfneap.org>
- Andersson, Å. and Tveteraas, A. (2002): Koster/Yttre Hvaler - a potential MPA, Briefing. WWF North-East Atlantic Programme, Bremen, Germany.
<http://www.wwfneap.org>
- Andresen (1996): Effectiveness and Implementation within the North Sea/North East Atlantic Co-operation: Development, Status and Future Perspectives. pp. 60-82 in: Nord 1996: Second Publication from a Project on the Effectiveness of Multilateral Environmental Agreements, Workshop Proceedings and Study Report. Nordic Council of Ministers, Copenhagen: .
- ATNS (2003): Treaty between Australia and the Independent State of Papua New Guinea (1985).
<http://www.atns.net.au/biogs/A001153b.htm> - 11.12.2003.
- Berry, C. (1998): The Dogger Bank – a potential MPA, Briefing. WWF North-East Atlantic Programme, Bremen, Germany. <http://www.wwfneap.org>
- BfN (2004): Karte 1: Natura 2000 Schutzgebietsmeldungen nach FFH-Richtlinie und EU-Vogelschutzrichtlinie in der deutschen Ausschließlichen Wirtschaftszone (AWZ) sowie Bundesländermeldungen innerhalb des deutschen Hoheitsbereichs der Nordsee (Stand: 28.04.2004).
http://www.bfn.de/marinehabitate/downloads/erlaeuterungstexte/Karte1_Schutzgebiete_mit_Koordinate_n.pdf
- BfN (2003): Erklärungstexte zu den Karten der NATURA 2000-Schutzgebietsvorschläge in der AWZ der Nordsee.
<http://www.HabitatMareNatura2000.de> - 13.11.2003.
- BfN (2001): Application of NATURA 2000 in the marine environment. Workshop at the International Academy for Nature Conservation, Vilm from 27 June to 1 July 2001. <http://www.bfn.de>
- CBD (1992): Convention on Biodiversity.
<http://www.biodiv.org/conventions/articles.asp?lg=0&a=cbd-00>, 05.05.2003.
- Christiansen, S. and Andersson Å. (2001): Lilla Middelgrund - a potential MPA, Briefing. WWF North-East Atlantic Programme, Bremen.
<http://www.wwfneap.org>
- Dankers, N.M.; Leopold, M.F.; Smit, C.J. (2003): Vogel- en habitatrichtlijn in de Noordzee. Alterra-Report 695. Alterra Research Instituut voor de Groene Ruimte, Wageningen, The Netherlands.
- DEFRA (2002) Safeguarding our Seas: A Strategy for the Conservation and Sustainable Development of our Marine Environment.
<http://defraweb/environment/marine/stewardship/default.htm> - 29.12.2003.
- DEFRA (2003): The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2003 Consultation Document.
- DTI (2001): Strategic Environmental Assessment of the Mature Areas of the Offshore North Sea SEA 2. Report to the Department of Trade and Industry.
- Europarc (2000): Proceedings on the seminar on basic standards for transfrontier co-operation between European protected areas. Europarc Federation, Grafenau, Germany.
- European Commission (1997): Criteria for assessing national lists of pSCI at biogeographical level. The Habitat Committee (Hab. 97/2 rev. 4).
- European Commission (1999): Communication from the Commission to the Council and the European Parliament. Fisheries Management and Nature Conservation in the Marine Environment.
http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscm/en/com_99_363_en.pdf
- Fifth International North Sea Conference (2002): The Bergen Declaration, 20-21 March 2002. Bergen, Norway. <http://www.northseaconference.no>
- Gubbay, S. (1996): The potential for marine protected areas in UK offshore waters. A report for WWF-UK. Godalming, UK.
- Gubbay, S. (1998): Management of offshore marine protected areas. A report for WWF-UK. Godalming, UK.

- Gubbay, S. (1999): Offshore Directory. Review of a selection of habitats, communities and species of the North-East Atlantic. WWF-UK and North-East Atlantic Programme. Godalming, UK and Bremen, Germany. <http://www.wwfneap.org>
- Gubbay, S.; Baker, M.C.; Bett, B.J. (2002): The Darwin Mounds and the Dogger Bank. Case studies of the management of two potential Special Areas of Conservation in the offshore environment. WWF-UK and Southampton Oceanographic Centre. Godalming, UK. <http://www.wwfneap.org>
- Hamilton, L.S.; Mackay, J.C.; Worboys, G.L.; Jones, R.A.; and Manson, G.B. (1996): Transborder Protected Area Co-operation. IUCN, Gland, Switzerland and Cambridge, UK.
- Hockings, M. *et al.* (2000): Evaluating Effectiveness: A framework for assessing management of protected areas. Best Practice Protected Area Guidelines Series No. 6. Gland, Switzerland and Cambridge, UK: IUCN in association with Cardiff University.
- IAU (2003): Review of international legal instruments, policies and management in respect of the Wadden Sea Region. Final Report for the Wadden Sea Forum. Impact Assessment Unit, Oxford Brookes University; <http://www.irwc.ribeamt.dk> - 05.12.2003.
- IMO (2001): Guidelines for the Designation of Special Areas under MARPOL 73/78 and Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas. Resolution A.927(22). Adopted on 29 November 2001. pp. 203-218 in: IMO (2002): Resolutions and other decisions of the 22nd Assembly.: International Maritime Organization, London, UK.. <http://www.imo.org>
- IMO (2003): Guidance Document for Submission of PSSA Proposals to IMO; MEPC/Circ.398. International Maritime Organization, London, UK. <http://www.imo.org>
- IMO (2004): Special Areas and Particularly Sensitive Sea Areas. International Maritime Organization, London, <http://www.imo.org/home.asp> - 04.01.2004.
- Julien, B. (2000): Transfrontier co-operation: towards Natura 2000. pp. 26-27 in: Europarc 2000: Proceedings on the seminar on basic standards for transfrontier co-operation between European protected areas. Europarc Federation, Grafenau, Germany..
- Kelleher, G. (1999): Guidelines for Marine Protected Areas. IUCN, Gland, Switzerland and Cambridge, UK. <http://www.iucn.org>.
- Kröncke, I.; Knust, R. (1995): The Dogger Bank: a special ecological region in the central North Sea. *Helgoländer Meeresuntersuchungen* (49), 335-353. Biologische Anstalt Helgoland, Hamburg, Germany.
- LNV (no indication): Naturwaardenkaart Noordzee. In: Structurschema Groene Ruimte 2, Ministerie van LNV, op basis van de Vijfde Nota Ruimtelijke Ordening, Ministerie van VROM. <http://www.minlnv.nl/thema/groen/ruimte/sgrz/kaarten/noordzee-grifs.jpg> - 21.12.2003.
- Lloyd's List (2003): Torres Strait nears compulsory pilotage. *Lloyd's List* 14.08.2003: p. 3.
- Mc Garve, R.; Willison, M. (1994): Rationale for a marine protected area along the international boundary between U.S. and Canadian Waters in the Gulf of Maine. In: Shackell, N.; Willison, J.H. 1994: Marine Protected Areas and Sustainable Fisheries. Proceedings of the symposium on marine protected areas and sustainable fisheries, May 16-20, 1994. Halifax, Canada.
- Norcoast (2000): Integrated coastal zone management and planning; <http://www.norcoast.dk> - 12.05.2004.
- OSPAR Commission (2000): Quality Status Report 2000, Region II – Greater North Sea. OSPAR Commission, London, UK. <http://www.ospar.org>
- OSPAR Commission (2003a): OSPAR Recommendation 2003/3 on a Network of Marine Protected Areas. Annex 9 (Ref. Sa-4.44a). Summary Record of the OSPAR Commission Meeting 2003. London, UK. <http://www.ospar.org>
- OSPAR Commission (2003b): OSPAR Workshop on Spatial Planning in the North Sea (SPINS 04/2/1-E). London, 8-9 January 2004. <http://www.ospar.org>
- Owen, D. (2004): Interaction between the EU Common Fisheries Policy and the Habitats and Birds Directives. Institute for European Environmental Policy, London, UK and Brussels, Belgium. <http://www.ieep.org.uk/>

- Pomeroy, R.S.; Parks, J.E.; Watson, L.M. (2004): How is your MPA doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness. Gland, Switzerland and Cambridge, UK: IUCN. <http://www.iucn.org>
- Queensland Government (2003): Strait ahead, Newsletter Vol. 2, (3); <http://www.dpi.qld.gov.au/fish/13014.html> - 11.12.2003.
- Rachor, E.; Günther, C.P. (2001): Concepts for Nature Reserves in the South Eastern North Sea. *Senckenbergiana maritima* 31(2), 353-361. Wilhelmshaven, Germany.
- Sadowski, S. (1997): Protection of the marine Environment of the North Sea: The "Russian Doll" Effect. pp. 109-119 in: Ringbom, H. 1997: Competing Norms in the law of Marine Environmental Protection. Klewer Law International, London, UK. Sandwith, T.; Shine, C.; Hamilton, L.; Sheppard, D. (2001): Transboundary Protected Areas for Peace and Co-operation. IUCN, Gland, Switzerland and Cambridge, UK. <http://www.iucn.org>
- SRU (2004): Marine Environment Protection in the North and Baltic Seas. Summary Report. German Advisory Council on the Environment. Rat von Sachverständigen für Umweltfragen, Berlin, Germany. <http://www.umweltrat.de/frame02.htm>
- Symes, D.; Pope, J.G. (2000): An ecosystem approach to the Common Fisheries Policy: Achieving the objectives. English Nature, Petersborough, UK.
- Task Force Atlantis (2003): The Gulf of Maine International Ocean Wilderness; <http://www.atlantisforce.org/index2a.html> - 10.12.2003.
- UNESCO (2000): MAB Seville +5 Recommendation for the establishment and functioning of transboundary biosphere reserves; <http://www.unesco.org/mab/mabicc/2000/eng/TBREng.htm> - 11.12.2003.
- United Nations (2003): United Nations Convention on the Law of the Sea of 10 December 1982. Overview and full text; United Nations Division for Ocean Affairs and the Law of the Sea: http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm - 04.01.2002.
- WCPA (1998): International Conference on Transboundary Protected Areas as a Vehicle for International Co-operation. 16-18 September 1997, Somerset West; Conference Proceedings. World Commission on Protected Areas http://www.unep-wcmc.org/protected_areas/transboundary/somersetwest/index.html - 24.11.2003.
- WWF (2001): From Assessment to Management – Time for an Ecosystem Approach to the OSPAR Regions. Submitted to the OSPAR Commission (OSPAR 01/6/-e); <http://www.ngo.grida.no/wwfneap/Publication/subm.htm#Ospar2001> - 17.12.2003.
- WWF (2000): Developing a framework for marine protected areas in the North-East Atlantic. Report from the workshop held 13-14 November 1999 in Brest, France. WWF North-East Atlantic Programme, Bremen, Germany. <http://www.wwfneap.org>
- WWF, IUCN (1998): Creating a sea change. The WWF/IUCN Marine Policy. WWF and IUCN, Gland, Switzerland. <http://www.panda.org>



WWF is one of the world's largest and most experienced independent conservation organisations, with almost 5 million supporters and a global network active in more than 90 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by

- conserving the world's biological diversity,
- ensuring that the use of renewable resources is sustainable and
- promoting the reduction of pollution and wasteful consumption.

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