Review of the legal framework applicable to MPAs as a tool for ecosystem conservation & fisheries management

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This chapter reviews the legal basis in a number of international and European legal instruments underpinning the establishment of Marine Protected Areas (MPAs) as a tool for ecosystem conservation and fisheries management. The global instruments examined include: the 1982 United Nations Law of the Sea Convention (LOS); the 1992 United Nations Conference on Environment and Development (UNCED) and Agenda 21; the 1992 Convention on Biological Diversity; the 1995 United Nations Agreement Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; the 1995 FAO Code of Conduct for Responsible Fisheries; and the 2002 World Summit on Sustainable Development (WSSD). The regional instruments considered are: the OSPAR and HELCOM Conventions. European primary and secondary legal instruments reviewed include: the EC Treaties; Council Regulation No 2371/2002; Council Directive 92/43/EEC (the Habitats Directive); and Council Regulation 602/2004 to protect deepwater coral sites in an area north-west of Scotland. Recent policy initiatives such as the Biodiversity Action Plan for Fisheries, the European Marine Strategy and the European Maritime Policy are also mentioned. The chapter concludes by outlining the legal options for establishing Marine Protected Areas as a tool for ecosystem conservation and fisheries management.

Introduction

In recent decades, a "species" approach to fisheries management is no longer considered adequate to conserve the living resources of the sea. In parallel with the move away from traditional management measures there has been a shift towards the adoption of new tools such as the ecosystem(s) approach and the establishment of Marine Protected Areas (MPAs) as a means to protect sensitive marine habitats. There are some suggestions that the latter may be traced back to the establishment in 1935 of a conservation area in Fort Jefferson National Monument Park in Florida that extended seawards from a narrow coastal band.[1] Arguably, at a global level the best known "protected areas" are the Great Barrier Reef Marine Park in Australia and the Sabana-Camanguey archipelago off Cuba which are designated as Particularly Sensitive Sea Areas (PSSA) by the IMO because of their ecological and scientific significance.[2] Irrespective of the origin of the "protected area" concept, there is little doubt but that there is now a plurality of legal instruments and international conference documents that call for the establishment of MPAs both within and beyond national jurisdiction as a means to halt the loss of biodiversity and to protect nursery grounds for commercial fish stocks.

The chapter traces the legal basis of MPAs as a means for ecosystem conservation and fisheries management in a number of international, regional, and European legal instruments. At the outset, it ought to be pointed out that the European Community is an international organisation with legal personality and is thus party in its own right to many international instruments and conference documents that require the establishment of a network of MPAs.[3] A similar obligation arises under a

[1] See, Guidelines for the Identification of Particularly Sensitive Sea Areas adopted November 6, 1991 by the IMO under Resolution A.720 (17) as revised by Annex 2 of IMO Assembly Resolution A.927 (22), November 2001.
[2] On the unsuitability of PSSA designation for fisheries management purposes, see paragraph 2, *infra*.
[3] See, for example, the commitment that arises in the following (discussed below): the 1972 World Conference on Human Environment; the 1982 United Nations Law of the Sea Convention (LOS); the 1992 United Nations Conference on Environment and Development (UNCED) and Agenda 21; the 1992

number of European legal instruments.[4] In this context, it is relevant to note that the Council of Fisheries Ministers has called upon the Community to adopt a coherent approach to MPAs as a means to enhance protection of marine biodiversity and to protect, restore or improve habitats for specific species.[5] This is not a new departure in so far as the provision of special "protected status" to a particular area has been previously tested under the common fisheries policy (CFP) in a number of spatial areas colloquially referred to as Western Waters; the Shetlands Box; the Hake Box and the Plaice box. Indeed, it could be argued that measures aimed at reducing access and fishing effort, as well as restrictions on catch and gear to protect juvenile fish species are effectively applications of the same principles which underpin MPAs from a fisheries management perspective.

Both North Sea sandeel and the eastern Baltic Sea cod fishery are depleted and subject to special conservation measures in line with advice presented by the Scientific, Technical and Economic Committee for Fisheries (STECF).[6] Accordingly, any proposal to establish MPAs in relation to these fisheries will be informed by the general management advice presented by ICES and STECF. This chapter concludes, nonetheless, that there is an adequate legal basis in European fishery conservation and environmental instruments for the establishment of a network of MPAs in sea areas under the sovereignty and jurisdiction of the Member States. Moreover, any such initiative to conserve Baltic Sea cod, North Sea sandeel and deepwater coral by this means is entirely consistent with recent measures to integrate environmental principles into the CFP and to adopting an ecosystem-based approach to fisheries management.

Preliminary Matters

(i). Definitions

Marine Protected Areas (MPAs)
(see previous chapter "MPA Terms and Definitions")

Ecosystem Approach

The Convention on Biological Diversity described an **"**ecosystem" as **"**an interaction complex of living communities and the environment, functioning as a largely self-sustaining unit".[7] The ecosystem approach is defined as **"**a strategy for the integrated management of lands, water and living resources that promotes conservation and sustainable use in an equitable way". ICES have published useful guidance on the application of the ecosystem approach to the management of human activities in the European marine environment that informs the work of PROTECT.[8]

(ii). Caveat

Convention on Biological Diversity; the 1995 United Nations Agreement Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; the 1995 FAO Code of Conduct for Responsible Fisheries; the 2001 Reykjavik Declaration; and the 2002 World Summit on Sustainable Development (WSSD).

[4] See, Part III, *infra*.

[5] See, para. 16 *infra*.

[6] Commission Regulation (EC) No 1147/2005 of 15 July 2005 prohibiting fishing for sandeel with certain fishing gears in the North Sea and the Skagerrak OJ L 185 , 16/07/2005 19 - 0019

[7] Ibid.

[8] See, Guidance On The Application Of The Ecosystem Approach To The Management Of Human Activities In The European Marine Environment, September 2004.

This chapter only deals with legal and policy instruments concerning species and habitat protection and does not deal with international agreements aimed at protecting the marine environment from vessel source pollution. Consequently, the use of IMO mechanisms to protect a designated area because of its ecological, socio-economic or economic significance such as Particularly Sensitive Sea Areas (PSSAs) is excluded from the scope of this chapter, as this scheme of protection may not be applied to fishing activity.[9]

The second aspect of this chapter that calls for comment is the distinction that may be made between the protection of a spawning stock for Baltic cod or North Sea sandeel and the protection of a physical structure on the seabed such as carbonate mounds associated with accumulation of deepwater-coral. As will be seen, the application of MPAs as a tool for fishery management purposes is not the same as their application for ecological purposes under the Habitats Directive. This is clearly evident from the Biodiversity Action Plan for Fisheries discussed in paragraph 17 below.

(iii). Geographical Scope

This chapter deals with the law as it applies to sea areas under the sovereignty and jurisdiction of Member States. Many of the conservation and management measurements set out in international agreements apply, *mutatis mutandis*, to these areas. Maritime areas under the sovereignty and jurisdiction of Norway are only mentioned briefly as these areas are not subject to European Community law. This aspect will be assessed separately in a later chapter.

(iv). Structure

This chapter is divided into three parts. Part I review a number of policy initiatives that have been taken at an international level calling for the establishment and management of protected areas. Part II reviews the legal regime for the establishment of protected areas in a number of global and regional instruments. Part III identifies the legal basis for the use of MPAs as a tool for ecosystem conservation and fisheries management in a number of European legal instruments. This is followed by a brief assessment of the adequacy of the existing legal regime as a framework for establishing MPAs to protect deepwater coral, Baltic Sea cod and the North Sea sandeel.

[9] See, Guidelines for the Identification of Particularly Sensitive Sea Areas adopted November 6, 1991 by the IMO under Resolution A.720 (17) as revised by Annex 2 of IMO Assembly Resolution A.927 (22), November 2001.

Part 1: "Soft law" Initiatives

1. General

Several policy initiatives, sometimes referred to as "soft law", have been taken by the international community under the aegis of the United Nations to establish MPAs with a view to protecting the marine environment. Although this approach is endorsed by the United Nations Convention on the Law of the Sea (Article 194(5)) itself, many of these initiatives have sought to link the protection of the marine environment with the concept of sustainable development and may be traced back to the 1972 Declaration of the United Nations Conference on the Human Environment.[10] Some of these initiatives are reviewed here. In general, they demonstrate that the adoption of MPAs as a tool for ecosystem management and fisheries management is a contemporary legal issue.[11]

2. Agenda 21, 1992 United Nations Conference on Environment and Development, Rio de Janeiro 1992

Agenda 21, the action programme adopted by United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in 1992 places particular emphasis on preserving habitats and other ecologically sensitive areas both within and beyond national jurisdiction. More specifically, the programme calls upon "states to identify marine ecosystems exhibiting high levels of biodiversity and productivity and other critical habitats areas providing necessary limitations on use in these areas, through *inter alia*: designation of protected areas".[12]

3. United Nations FAO Code of Conduct for Responsible Fisheries

The European Community is committed to implementing the FAO Code of Conduct for Responsible Fisheries which sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources with due respect for the ecosystem and biodiversity.[13] Although the Code is voluntary, it places an express obligation on States and users of living aquatic resources to conserve aquatic ecosystems.[14] The right to fish carries with it the obligation to do so in a responsible manner. Moreover, management measures should not only ensure the conservation of target species but also species in associated ecosystems. According to the Code, management decisions for fisheries should be based on the best scientific evidence available, taking into account traditional knowledge of the resources and their habitat, as well as the relevant environmental, economic and social factors.[15] Furthermore, the Code places an express obligation on States and regional fisheries management organisations to apply a precautionary approach to the conservation, management and exploitation of living aquatic resources in order to protect them and to preserve the aquatic environment.[16] In this regard, the absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment. One other provision in the Code of Conduct for Responsible Fisheries that is particularly pertinent to the establishment of MPAs is the recommendation that all critical

[10] UN Doc. A/CONF/48/14/REV.1.
[11] On this point, see, T. Scovazzi, 'Marine Protected Areas on the High Seas: Some Legal and Policy Considerations,' *International Journal of Marine and Coastal Law*, Vol. 19, 2004, pp. 1-17
[12] Agenda 21, paragraph 17.68
[13] For further details of the Code and developments in implementation, see, ww.fao.org/fi/agreem/codecond/codecon.asp. A useful introduction to the Code is provided by W. R. Edeson, "The Code of conduct for Responsible Fisheries, An Introduction", (1996) 11(2) *IJMCL*, 233-238
[14] FAO Code of Conduct for Responsible Fisheries, Article 6.1
[15] Article 6.4, *id*.
[16] Article 6.5, *id.*

fisheries habitats in marine ecosystems, such as reefs, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary.[17] In this context, fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account previously agreed management measures established and applied in the same region, all removals and the biological unity and other biological characteristics of the stock.[18] Elsewhere, the Code calls upon parties to develop and apply selective and environmentally safe fishing gear and practices in order to maintain biodiversity.[19] Moreover, in cases where proper selective and environmentally safe fishing gear and practices exist, they should be recognised and accorded a priority in establishing conservation and management measures for fisheries.[20]

4. Declaration of the World Summit for Sustainable Development, Johannesburg 2002

In 2002, a World Summit to review the implementation of UNCED was held in Johannesburg, South Africa. The purpose of the summit was to review the global commitment to sustainable development enunciated in UNCED and by Agenda 21. The summit adopted two documents: the Declaration of the World Summit for Sustainable Development (the *Johaneesburg Declaration*) and the Plan of Implementation. The *Johannesburg Declaration* calls upon states to implement an ecosystem approach to fisheries management by 2010. Moreover, it set down the following objectives for marine resource management:

- the establishment of……network of marine protected areas by 2012;
- restoration of fisheries by 2015;
- drop in rate of species extinction by 2010.

Ocean issues are dealt with in Part IV of the Plan of Implementation which calls upon states and international organisations to "develop …diverse approaches and tools including…. the establishment of *marine protected areas* consistent with international law and based on scientific evidence, ...*and time/area closures for the protection of nursery grounds and periods*..." (emphasis added).[21]

5. United Nation's General Assembly Resolution No. A/57/L.48

Since the adoption of the Declaration of the World Summit for Sustainable Development concluded in 2002, the United Nations General Assembly adopted a resolution that deals specifically with the marine environment, marine resources and sustainable development. [22] In particular, this resolution called upon States:

- To cooperate and to take measures to implement Part XII of the Law of the Sea Convention to protect the environment and living resources;
- Endorsed the need for a…network of marine protected areas by 2012;
- Highlighted requirement for international programmes to halt the loss of marine biodiversity;
- Called for the protection of coral reefs;
- Called for urgent ……action to improve the management of …underwater features.

Clearly, the resolution endorses the establishment of a network of MPAs by 2012.

6. United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS)

[17] Article 6.8, *id.*
[18] Article 7.3.1
[19] Article 6.6, *id.*
[20] *Ibid*
[21] WSSD Plan of Implementation, para. 31
[22] UNGA Resolution No. A/57/L.48 of 10th December 2002

In 2000, the United Nations established the Open-Ended Informal Consultative Process (ICP) to assist the General Assembly in their annual review of developments concerning the oceans and the law of the sea. One of the functions of the ICP is to identify areas where there is a requirement for enhanced international co-ordination and co-operation at the inter-agency level. One of the principal issues discussed at the fourth meeting of the United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) in 2003 were the means available to "protect vulnerable marine ecosystems". At the meeting, many delegations including the delegation representing the EU expressed support for the establishment of MPAs as a management tool to implement the ecosystem approach both within and beyond national jurisdiction.[23]

7. Bergen Declaration

In March 2002, the Fifth Conference on the Protection of the North Sea adopted the Bergen Declaration aimed at establishing, *inter alia*: an integrated ecosystem approach to the management of human activities affecting the North Sea. At the conference, North Sea Ministers agreed that by 2010 relevant areas of the North Sea will be designated as MPAs belonging to a network of well-managed sites, safeguarding threatened and declining species, habitats and ecosystem functions, as well as areas which best represent the range of ecological and other relevant character in the OSPAR area.[24]

Moreover, the Ministers agreed that fisheries policies and management should move towards the incorporation of ecosystem considerations in a strategic context.[25] While the transition towards a full ecosystem approach to fisheries management should be progressive and concomitant with the enhancement of scientific knowledge, the Ministers expressed the view that the current state of scientific knowledge, coupled with a sound application of the precautionary principle, allows the immediate setting of certain environmental protection measures. In addition, the Ministers requested the competent authorities to identify additional areas to be closed permanently or temporarily to fishing activities for the protection of juvenile fish.[26] Such closures should then be implemented and regularly assessed to ensure that they are effective for stock recovery. The Ministers also endorsed the implementation of environmental measures into the principles, objectives and operational measures underpinning the CFP.[27]

[23] UN, Report of the Work of the United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea, June 2003, paragraph 104
[24] Bergen Declaration, Fifth Conference on the Protection of the North Sea, paragraph 7
[25] Bergen Declaration, Fifth Conference on the Protection of the North Sea, paragraph 19
[26] Bergen Declaration, Fifth Conference on the Protection of the North Sea, paragraph 24
[27] Bergen Declaration, Fifth Conference on the Protection of the North Sea, paragraph 36

Part 2: International and regional treaties

8. General

The international legal regime for marine areas within and beyond the jurisdiction of the Member States is made up of a number of global and regional legal instruments. Some of these are further examined here. The regional instruments are the OSPAR and HELCOM Conventions.

9. 1982 United Nations Convention on the Law of the Sea

The 1982 United Nations Convention on the Law of the Sea provides the jurisdictional framework for the implementation of MPAs in sea areas under the sovereignty and jurisdiction of the Member States. Aside from Estonia, all Member States and the European Union are party to this Convention which sets out the framework for all aspects of ocean use such as navigation, environmental protection, marine scientific research, economic activities, marine resource use, capacity building and dispute settlement. Significantly, under the Convention, States have a duty to protect and preserve the marine environment and to exploit natural resources in accordance with this duty.[28] These obligations apply to all sea areas under the sovereignty and jurisdiction of the Member States. Measures taken by parties to the Convention *must* include those necessary to protect and preserve rare and fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.[29] The Convention also requires States to take into account the best available scientific information to ensure the proper management and conservation of marine living resources.[30]

The scope for taking measures to protect Baltic Sea cod, North Sea sandeel and deepwater coral will be tailored by the maritime jurisdictional zones codified by UNCLOS and implemented by the CFP is shown on Figure 1 below. The maritime jurisdiction zones include:

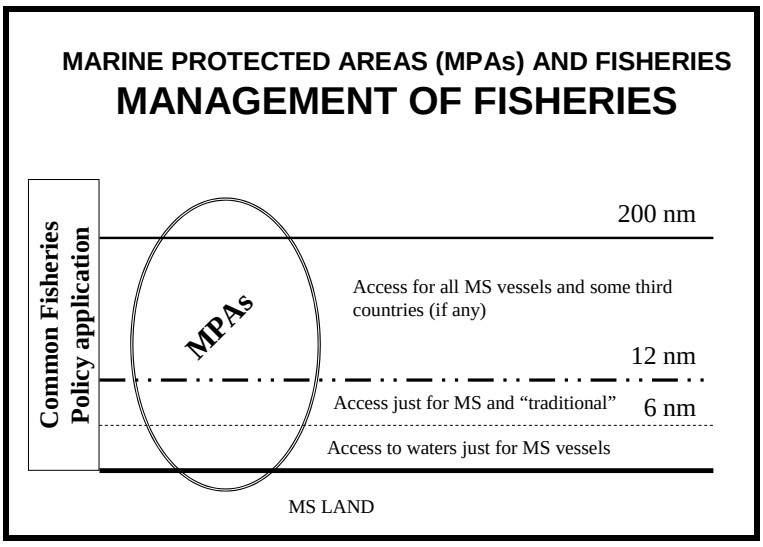
- *Internal waters*: coastal states enjoy full sovereignty.
- *Territorial sea* (out to a maximum of 12 nautical miles from the baseline/low tide mark): coastal states exercise full sovereignty under international law subject to the right of vessels to exercise their right of innocent passage. There is limited scope under the CFP for the adoption of nation measures (discussed in Part III below).
- *Exclusive Economic Zone* (EEZ) (maximum 200 nautical miles from the baseline) coastal states have sovereign rights over natural resources and certain economic activities, and jurisdiction over environmental protection, subject to the rights of other states to freedom of navigation, overflight, laying of submarine cables and pipelines. Fisheries measures are implemented by means of the CFP.
- *Continental shelf* (may extend beyond 200 nautical miles) coastal states have sovereign rights for exploring or exploitation of natural resources of the seabed and subsoil. The CFP has no application to the non-living natural resources of the continental shelf such as carbonated mounds or non-living coral structures.
- *High seas* (areas beyond national jurisdiction) all states enjoy traditional high seas freedoms, subject to other international agreements and duties to protect marine environment and conserve living marine resources. The CFP applies to the activities of fishing vessels flying the flag of a Member State.

In summary, although the European Community has competence to adopt conservation measures for living aquatic resources, the implementation of specific

[28] 1982 UN LOS Convention, Article 192, 193
[29] 1982 UN LOS Convention, Article 194 (5)
[30] 1982 UN LOS Convention, Article 161

measures under the CFP must adhere to the normative jurisdictional framework set out by the 1982 United Nations Convention on the Law of the Sea.

Figure 1: Application of MPAs through the medium of the CFP and international law.



10.Convention on Biological Diversity

The Convention on Biological Diversity (CBD) adopted in 1992 aims to conserve biodiversity. CBD calls upon States Parties to establish national conservation strategies and to establish a system of *protected areas* or areas where special measures need to be taken to conserve biological diversity.[31] This obligation applies to both marine and terrestrial areas. Parties are expected to regulate activities under their jurisdiction that may have a significant adverse effect on biodiversity. In recognition of the special conservation requirements of the marine environment, in 1995 the second Conference of Parties to the CBD adopted the Jakarta Mandate. The Jakarta Mandate lays out a strategy for protection of coastal and marine biological diversity, including the establishment of representative systems of marine and coastal protected areas, within the context of national programmes for integrated coastal area management. At the seventh meeting of the Conference of the Parties to the CBD in Kuala Lumpur, Malaysia, in February 2004, Contracting parties agreed to achieve the "establishment and maintenance by 2012 for marine areas, of comprehensive, effectively managed and ecologically representative national and regional systems of protected areas." The seventh meeting of the Conference of the Parties also established the Ad Hoc Open-ended Working Group on Protected Areas with a mandate to support this objective. A meeting of this working group took place in Montecatini, Italy, 13-17 June 2005.[32]

The European Community has taken a strong position regarding the halting of biodiversity loss, ensuring the conservational and sustainable use of marine biodiversity, as well as the creation of a global network of marine protected areas by 2012. The implementation of the proposed Directive Establishing a Framework for Community Action in the field of Marine Environmental Policy (discussed below in Part III) will contribute to the achievement of the objectives agreed at the Kuala Lumpur meeting including the establishment and maintenance of ecologically representative national and regional systems of marine protected areas by 2012.

[31] Convention on Biological Diversity, Article 5
[32] See, UNEP/CBD/WG-PA/1/2, Ad Hoc Open-Ended Working, Group On Protected Areas, Montecatini, Italy, 13-17 June 2005.

11. United Nations Agreement for the implementation of the provisions of UNCLOS Of 10 December relating to the Conservation And Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Straddling Fish Stocks Agreement)

The European Union and the Member States are party to the Straddling Fish Stocks Agreement. Although this Agreement is not applicable to Batic Sea cod or North Sea sandeel, it is relevant to adoption of conservation measures for the deepwater coral sites that straddle the Irish exclusive fishery zone and the outer continental shelf. Significantly, this Agreement aims to protect biodiversity and to reduce fishing impacts on associated and dependent species.[33] Moreover, the agreement endorses the adoption of conservation measures and calls for the application of the precautionary principle.[34] Any measures to establish MPAs to protect deepwater coral sites will have to be consistent with this Agreement and with measures adopted by regional fisheries management organisations such as NEAFC.

12.OSPAR Convention

Another Convention influencing the development of EC law to protect the marine environment is the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).[35] Among the objectives of this Convention is the provision of a legal framework for concerted action at all levels to manage human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and meet the needs of present and future generations.[36] While the OSPAR Convention is ostensibly focused on marine pollution it contains important provisions in Annex V aimed at the protection and conservation of the ecosystems and biological diversity of the maritime area. Both Article 4 of Annex V and the penultimate recital of the Convention stipulate that measures pertaining to the management of fisheries shall not be adopted under the Convention but shall be referred to the attention of the authority or international body competent for such issues. Thus, questions pertaining to the management of the North Sea sandeel fishery and the deepwater coral sites that impinge upon the activities of fishing vessels flying the flag of Member States of the EC must be taken under the instruments constituting the CFP.

There are a number of recent developments within the OSPAR framework that are relevant to PROTECT. At a meeting in Sintra in Portugal in 1998, the European Commission and the members of the OSPAR Commission bound themselves to implement a strategy on the protection and conservation of the ecosystems and biological diversity of the maritime area and in so doing promote the establishment of a network of MPAs. Subsequently, the Environmental Ministers of OSPAR and HELCOM Contracting Parties expressed their support for implementing the Declaration of the World Summit for Sustainable Development at their meeting in Bremen in June 2003. Contracting Parties also entered into a commitment to

[33] United Nations Agreement for the implementation of the provisions of UNCLOS Of 10 December relating to the Conservation And Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Article 5

[34] United Nations Agreement for the implementation of the provisions of UNCLOS Of 10 December relating to the Conservation And Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Article 6

[35] The OSPAR Convention came into force in 1998. OSPAR refers to Oslo and Paris, the cities in which previous conventions to the 1992 Convention were adopted. The Convention maritime areas are those parts of the Atlantic and Arctic Oceans and their dependent seas as defined in Article 1 of the Convention. Within that particular area the Convention applies to the internal waters and the territorial seas of the Contracting Parties, the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law, and the high seas, including the sea of all those waters and its sub-soil.

[36] Third recital of the Convention.

establish a network of MPAs and to ensure that by 2010 it is an ecologically coherent network of well managed marine protected areas which will:

(a). Protect, conserve and restore species, habitats and ecological processes which have been adversely affected by human activities;
(b). Prevent degradation of, and damage to, species habitats and ecological processes, following the precautionary principle;
(c). Protect and conserve areas that best represent the range of species, habitats and ecological processes in the maritime area.

The OSPAR network of MPAs is complementary to the NATURA 2000 network (discussed below) and will be completed by 2005. While the OSPAR Commission has neither competence to adopt and implement management measures for fisheries it can, nonetheless, bring issues related to the objectives of the Convention to the attention of the European Commission and to other relevant fisheries management bodies. Deepwater coral reefs are included in a list of endangered species under the OSPAR Convention. Significantly, a number mounds (Logathchev, Western Porcupine Bank Mounds, Hovland Mounds, and Belgica Mounds) associated wither deepwater coral species in sea-areas are also under consideration for designation as joint NATURA 2000/OSPAR MPAs. Similarly, one coral reef in nominated in the Norwegian EEZ and further designations are expected in 2007 when the first phase of Norway's national plan for MPAs is implemented.

13.HELCOM Convention

The Convention on the Protection of the Marine Environment of the Baltic Sea Area (HELCOM Convention) aims to protect the marine environment of the Baltic Sea from all sources of pollution and to restore and safeguard its ecological balance through intergovernmental co-operation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. In 1994, 62 Baltic Sea Protected Areas (BSPAs) were designated under HELCOM Recommendation 15/5. The Joint OSPAR-HELCOM Ministerial Meeting held in Bremen in 2003 adopted a joint work programme on MPAs in the North-East Atlantic and Baltic. At the time of writing, the network of marine and coastal Baltic Sea Protected Areas is not fully implemented and many Contracting Parties have not designated the boundaries of Baltic Sea Protected Areas (BSPAs) or prepare management plans, and few concrete steps have been taken to include the 24 proposed offshore BSPAs in the network. With the exception of Russia, all HELCOM Contracting Parties are Members States of the European Union and any measures to implement MPAs to protect Baltic Sea cod will have to be implemented by means of the CFP. Significantly, a recent communication published by the European Commission notes that: "The marine ecology of the Baltic region is estimated to have "*crashed*" and to be "*locked in*" to permanent eutrophication.[37]

[37]Commission Staff Working Document, Impact Assessment - Thematic Strategy on the Protection and Conservation of the Marine Environment, SEC (2005), (copy with the author)

Part 3: European law and policy

14. General

The European legal regime for establishing MPAs in seas under the jurisdiction and sovereignty of the Member States may be traced back to the EC treaties and to a number of instruments adopted under the CFP and the environmental policy. In addition, MPAs are relevant to the implementation of a number of policy initiatives such as: the Biodiversity Action Plan for Fisheries; the European Marine Strategy; and the European Maritime Policy.

The European Union has almost exclusive competence to regulate fisheries through the medium of European community law. Moreover, closed areas or restricted access zones have been used as a tool for fishery management since the early 1980s. Seasonal bans on fishing, for example, have been used to protect Western mackerel, cod in the German Bight and North Sea herring and sprat. Article 4 of Regulation (EEC) No 3760/92 (since repealed) provided a legal basis for various management tools to protect marine biodiversity including the establishment of zones in which fishing is prohibited or restricted, closed areas or no-take zones. In addition, many measures were adopted as technical conservation measures for the protection of juvenile marine organisms.[38] More recently, there is a trend in European law towards the adoption of measures that minimise the impact of fishing activities on marine ecosystems. This trend is traced here.

15.EC Treaties

The EC is committed to the sustainable development of economic activities and a high level of protection and improvement of the quality of the environment.[39] The EC Treaties also oblige the Community to adopt a common policy for fisheries.[40] While there is no express legal basis in the treaties which obliges the European Commission to establish MPAs as a tool for ecosystem conservation and fisheries management, the European Union is committed to the preservation, protection and improvement of the quality of the marine environment. This commitment has a solid legal basis in the EC Treaty, which states:

> "Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities.....in particular with a view to promoting sustainable development"[41]

This EC Treaty obligation to integrate environmental considerations into the elaboration and implementation of Community policies is based on the conceptual premise that environmental policy requires specific measures in sectoral policies such as fisheries in order to achieve the global objectives of environmental protection and sustainable development. Elsewhere, the EC Treaty states in the substantive provisions dealing with the environment that the Community policy on the environment shall contribute to prudent and rational use of natural resources.[42] Furthermore, that:

> "Community policies on the environment shall aim at a high level of protection taking into account the diversity of the situation in the various regions of the Community. It shall be based on the precautionary principle

[38] Council Regulation (EC) No. 850/98 of 30 March 1998, OJ L 125, 27.4. 1998 as amended.
[39] EC Treaty, Article 2
[40] EC Treaty, Article 3
[41] EC Treaty, Article 6
[42] EC Treaty, Article 174(2)

> and on the principles that preventative action should be taken, that environmental damage should as a priority be rectified at source...".[43]

Although the principles enunciated in this EC Treaty provision are generally considered to lack legal clarity and are seen as statements of political intent,[44] they do offer useful guidance which suggests that any measures or tools such as MPAs which are aimed at protecting the marine environment are fully consistent with European law and act as an embodiment of the precautionary and preventative action principles.

16. Integrations of Environmental Considerations into the CFP

The CFP has an environmental dimension since its inception in 1982. Indeed, measures to reduce bycatch of cetaceans and to implement the UN General Assembly Resolution on a moratorium on driftnet fishing, as well the restrictions on North Sea sandeel fisheries to safeguard seabirds, are clearly aimed at minimising the impact of fishing activity on the marine environment.

A major step to integrate environmental concerns into EU policies was taken at the Cardiff summit meeting in 1998. A description of the measures adopted under the CFP is provided in the Communication "Fisheries management and Nature Conservation in the marine environment".[45]

The Green Paper on the Future of CFP published in 2001 notes, nonetheless, *inter alia*, that:

- The CFP should do more to integrate the environmental dimension into policy making in a proactive manner.

- There is a lack of knowledge about the functioning of marine ecosystems and the side effects of fishing that exacerbate the environmental shortcomings of the CFP.[46]

The European Commission subsequently published a Communication on a strategy for the integration of environmental protection requirements into CFP which recommends: the adoption of an ecosystem approach to fishery management; the embracing of the environmental principles in the EC Treaties (discussed above), and: the implementation of the Biodiversity Action Plan for Fisheries.[47]

17. Biodiversity Action Plan for Fisheries

In 2001, the European Commission published a Communication to the Council and the European Parliament: Biodiversity Action Plan for Fisheries.[48] The Communication is part of the European Community's Biodivesity Strategy and fulfils the European Community's legal obligations under Article 6 of the CBD. The Strategy defines a two-step process. The first step is the elaboration of general policy orientation. The second entails the development and implementation of Action Plans and other measures. One of the priorities of the Action Plan for Fisheries is to reduce the impact of fisheries activities on non-target species and on

[43] EC Treaty, Article 174(2)
[44] See L. Kramer, *EC Environmental Law*, (London, Sweet & Maxwell, 4th ed., 2000), pp. 9-20
[45] COM (1999) 363
[46] COM (2001) 135 final, Brussels, 20.3.2001
[47] Communication from the Commission setting out a Community Action Plan to integrate environmental protection requirements into the Common Fisheries Policy, OM/2002/0186
[48] COM/2001/0162 final

marine and coastal ecosystems. The Action Plan for Fisheries notes that most of the concerns about fisheries impacting upon biological diversity have centred on the effect of over-fishing and the physical impact of fishing gear on habitat. One of the overall objectives of the Action Plan for Fisheries is to define and identify, within the current legislative framework, coherent measures that lead to the preservation or rehabilitation of biodiversity where it is perceived as being under threat due to fishing.

In the context of PROTECT, it is significant to note that paragraphs 45-52 of the Action Plan for Fisheries states the following:

> "45. Closed areas or "no-take zones" have been used for a long time within fisheries management both within the EU and elsewhere. It is important to recognise what is the intended purpose of such closures, as they will differ depending on whether the closure is for traditional fisheries management purposes or for ecological purposes. Within the fisheries management ambit, closures are used primarily for the following purposes:
>
> - in emergency situations, to prevent high fishing mortalities being exerted when fish are highly vulnerable because of forming dense aggregations.
> - to enhance protection of juvenile fish when gear selection do not provide enough protection.
> - only means to protect local spawning from depletion or extinction
>
> 46. In such situations it is believed that closures are effective although the relevant scientific evidence is only weakly supportive. This would also apply to non-target or by-catch species.
>
> 47. The experience gained with closures is that the effects are very difficult to evaluate and "no-take zones" are not a panacea to all fisheries management and ecological problems. Closures are less effective in reducing the overall fishing pressure than effort reductions because the effect can be to redistribute fishing effort to areas or time periods that are still open. To overcome such effects the closed areas have to cover a very large portion of the distribution of stocks they are intended to protect, which calls into question whether the use of other management tools (lower TAC, improved selection etc.) or combinations thereof would be more effective and less discriminatory towards those fishermen close to the closed area.
>
> 48. There is less experience with closures applied for ecological purpose in the marine environment although several closures have been in place for many years. Some of these were intended to protect single stocks, but there have also been extended closures in place around some marine installations, such as oil and gas, where fishing is prohibited.
>
> 49. It is important to note that compared to terrestrial organisms, marine organisms are relatively more mobile and closures might therefore be more appropriate in regards of protection of sensitive or representative habitats such as coral reefs and important feeding areas for seabirds during breeding seasons.
>
> 50. It is however generally perceived that if closed areas are well defined, they can be a useful additional tool to enhance protection of stocks and of sensitive habitats. *The plan therefore proposes use of closed areas for the protection of fish and habitats but it will be necessary to define clearly the objectives and to justify the biological basis for any such closure*s. Equally important is to promote research to assess and monitor the effects and pilot

studies therefore need to be initiated as an integrated part of this action. (emphasis added).

51. It is widely perceived that the high exploitation pressure on commercially important fish stocks has more widespread effects, leading to diminished food webs of decreased complexity and, generally speaking, less "biodiverse" ecosystems. Marine habitats are also affected. Although the reversibility of these effects may be questioned in cases of large alterations from the "pristine" situation, it is generally believed that a decrease in fishing pressure on commercially important fish stocks would contribute in the mid-term to increase the overall biodiversity of the marine ecosystems.

52. In some cases, however, the effect of fishing operations on the environment may be considered as positive effects on some populations or resulting in increased productivity. For example, high rates of discarding fish in some areas has led to increases in populations of scavenging seabird species. The reduction in abundance of dominant predatory fish by fishing may allow an increase in abundance of prey fish species. Additionally mild physical disturbance can enhance biodiversity and ecosystem productivity. These effects may be considered positive as long as fishing has not been so severe that the populations lose their ability to recover. It should be borne in mind, therefore, that the effects of changes in fishing practices and distribution should be considered fully, without prejudging the positive or negative implications."

In conclusion, the Action Plan for Fisheries points out that:

- Temporal or spatial closures to enhance survival of juveniles or spawning concentration, including sub-populations or to enhance survival of local populations in order to maintain genetic diversity are considered technical measures with the objective of improving the conservation and sustainable use of commercially exploited fish stocks.

- Temporal or spatial closures to enhance protection of species or habitats, including "no-take" zones are considered technical measures with the objective of reducing the impact on non-target species and habitat.

18. Council Regulation No 2371/2002 (the Basic Fishery Management Regulation)

The Council of Fisheries Ministers agreed a new management regulation for fisheries in December 2002.[49] Council Regulation No 2371/2002 (the Basic Fishery Management Regulation) is a framework regulation and comprises of 36 articles and is supported by a large corpus of implementation regulations that prescribes more detailed rules for various aspects of the policy. The geographical scope of regulation extends to all Community waters and covers the activities of fishing vessels flying the flag of a Member State of the European Union. With respect to adopting MPAs as a tool for ecosystem conservation and fishery management, the Basic Fishery Management Regulation provides a legal basis for the adoption of measures concerning: conservation, management and exploitation of living aquatic resources; limitation of the environmental impact of fishing; and conditions of access to waters and resources.[50] Importantly, the Basic Fishery Management Regulation embraces a number of environmental principles such as the adoption of both a precautionary approach to the protection of the environment and an ecosystems approach to

[49] Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the CFP, OJ L 358/59 of 31.12.2002.
[50] *Ibid*. Article 1

fisheries management.[51] Moreover, the regulation states that the policy is guided by the principles of good governance which require a clear definition of responsibilities at the Community, national and local levels; a decision-making process based on sound scientific advice which delivers timely results; broad involvement of stakeholders at all stages of the policy from conception to implementation; and a requirement that the policy is consistent with other Community policies, in particular with environmental, social, regional, development, health and consumer protection policies. [52]

One of the features of the Basic Fishery Management is the move towards a broader and more flexible regime for the management for European fisheries. In particular the Basic Management Regulation places considerable emphasis on a long-term management approach, the adoption of recovery plans for fishery stocks that are in crisis, and in a major departure from the previous regime, allows for the adoption of recovery plans by the European Commission and the Member States in cases where there is evidence of a serious threat to the conservation of living aquatic resources or to the marine ecosystem as a result of fishing activities.[53] The latter power has been utilized to protect deepwater coral reefs near the Darwin Mounds in the United Kingdom in August 2003.[54] This allowed time for the European Commission to prepare a regulation for the permanent protection of the reefs (discussed below). Similarly, the revised regulation provides a clear legal basis for the adoption of recovery plans to allow specific fish stocks to recover from over exploitation such as cod in the North Sea and Irish Sea. In line with the policy during the period 1982-2002, Member States retain the power under the Basic Fisheries Management Regulation to adopt measures in waters up to 12 nautical miles applicable to all fishing vessels provided that such measures are non-discriminatory and prior consultation with the European Commission, other Member States and the Regional Fishery Advisory Councils has taken place.[55] Moreover, the European Community must not have taken measures specifically addressing conservation.

19.Technical Conservation Measures

Council Regulation No 850/98 (referred to as the Technical Conservation Regulation) as amended prescribes the technical measures for the conservation of fishery resources and for the protection of juveniles of marine organisms.[56] This regulation is amended from time to time on the basis of scientific evidence to minimise the impact of fishing activities on marine ecosystems and to protect spawning stocks. There is also a special technical conservation regulation for the Baltic Sea: Council Regulation (EC) No 88/98 of 18 December 1997 which lays down certain technical measures for the conservation of fishery resources in waters of the Baltic Sea, the Belts and the Sound.[57] This regulation is also subject to amendment. Both Technical Conservation Regulations offer the best legal means to implement an MPA as a tool for ecosystems conservation and fisheries management.

20. Council Regulation No 602/2004 protecting deepwater coral reefs from the effects of trawling in an area north west of Scotland

The Technical Conservation Regulation (No. 850/98) was amended in 2004 to prohibit the use of bottom trawls or any similar towed nets operating in contact with

[51] *Id*., Article 2(1)
[52] *Id.*, Article 2(2)
[53] *Id.* Articles 7 and 8
[54] Commission Regulation (EC) 1475/2003 of 20 August on the protection of deepwater coral reefs from the effects of trawling in an area north west of Scotland, OJ L 211/14, 21, 08, 2003
[55]Council Regulation (EC) No 2371/2002, Article 9
[56] Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms, OJ L 125, 27.4.1998, p.1
[57] OJ L 009 , 15.01.1998, p. 0001-0016

the bottom of the sea in an area adjacent to the Darwin Mounds.[58] This area is within the 200 nautical mile fishery limits of the United Kingdom. According to ICES Reports aggregations of deepwater corals *Lophilia pertusa* have been mapped in this area and although they appear to be in good conservation status they appeared to show damage from bottom trawl operations. Moreover, scientific reports prove that these aggregations constitute habitats that host important and diverse biological communities. The prohibition on the use of bottom trawls and similar gear in the area surrounding the Darwin Mounds is justified on the grounds that reef recovery from trawl damage is either impossible or very difficult and slow.[59]

21. Council Directive 92/43/EEC (the Habitats Directive)

Although not applicable to Baltic Sea cod and North Sea sandeel, one legal instrument which is relevant to the protection of deepwater coral is the Habitats Directive.[60] This instrument aims to maintain biodiversity and contribute to the general objective of sustainable development by preserving and restoring natural habitats as well as wild fauna and flora.[61] Under the Directive, Member States are obliged to establish a comprehensive network of Special Areas of Conservation (SACs) for endangered and vulnerable species and habitats. The nature network established by the Habitats Directive in conjunction with the Birds Directive is known as NATURA 2000 and consists of sites of international importance. SACs are generally designated by Member States but there is also provision for EC designation in exceptional circumstances where a site hosts a priority natural habitat type or priority species. The Annexes of the Directive list the broad categories of natural habitat types and the specific animal and plant species of Community interest. The Habitats Directive is applied to sea areas under the sovereignty and jurisdiction of the Member States as is evident from the Communication from the Commission (*Fisheries Management and Nature Conservation in the Marine Environment)*.[62] This interpretation is supported by the decision of the High Court in the United Kingdom which concluded that the geographical scope of application of the Habitats Directive is not limited to the territorial sea but "applies to the United Kingdom's continental shelf and to the superjacent waters up to a limit of 200 nautical miles from the baselines from which the territorial sea is measured".[63] The decision of the High Court in the United Kingdom is consistent with the findings of the European Court of Justice in several fisheries cases that have held that the scope of Community law extends as far as the rule making authority remit of Member States under public international law.[64]

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[58] Council Regulation (EC) No 602/2004 of 22 March 2004 amending Regulation (EC) No 850/98 as the regards the protection of deepwater coral reefs from the effects of trawling in an area north west of Scotland, OJ L 097, 1.4.2004, p. 0030-0031

[59] Recital 6, Preamble, Council Regulation (EC) No 602/2004, OJ L 097, 1.4.2004, p. 0030-0031

[60] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, Official Journal L 206 , 22/07/1992 p. 0007 – 0050; as last amended by Council Directive 97/62/EC of 27 October 1997, Official Journal L 305 , 08/11/1997 pp. 0042 – 0065. For a discussion of the application of the directive to deepwater coral, see, R. Long, A. Grehan, "Marine Habitat protection in a coastal Member State of the European Union: the case of deep-water coral conservation in Ireland", *International Journal Marine and Coastal Law*, 2002, Vol 17, No. 2, pp. 241-269

[61] Council Directive 92/43/EEC, Article 2

[62] COM(1999), 363 final, Brussels 14.07.1999. The European Commission states that:

> "The provisions of the Habitats Directive automatically apply to the marine habitats and marine species located in territorial waters (maximum 12 miles). However, if a Member State exerts its sovereign rights in an exclusive economic zone of 200 nautical miles (for example, the granting of an operating licence for a drilling platform), it thereby considers itself competent to enforce national laws in that area, and consequently the Commission considers in this case that the "Habitats Directive" also applies, in that Community legislation is an integral part of national legislation".

[63] *The Queen* v. *The Secretary of State for Trade and Industry ex parte Greenpeace Limited*, High Court of Justice Queen's Bench Division, 5th November 1999.

[64] Joined Cases 3,4 and 6/76, *Kramer* [1976] ECR 1279, paragraphs 11-14; Case 61/77, *Commission* v. *Ireland* [1978] ECR 417.

There is also general consensus that *Lophilia pertusa* is a reef-forming coral and comes within the definition of "reefs" in the *Interpretation Manual of European Union Habitats* published by the European Commission. Both Ireland and the United Kingdom are in the process of designating deepwater coral sites and have taken steps to apply the Habitats Directive in the sea areas under their sovereignty and jurisdiction. According to the EU Habitats Directive, management of MPAs should aim at assuring that the activities taking place inside these areas do not imply unacceptable levels of disturbance or deterioration of the ecological features present at the protected marine sites. In this context, as noted by the Council of European Environment Ministers: "The Habitats and Birds Directives, and specially the associated network of protected sites in the marine environment "NATURA 2000", constitute a key element for the protection of the marine ecosystem which may have consequences on fisheries. Member States are encouraged to continue their work towards the full implementation of these directives in their exclusive economic zones." In this context, measures to protect deepwater coral sites from fishing activity will have to be taken through the medium of the CFP. The application of MPAs as a tool for ecosystem conservation & fisheries management is illustrated in Figure 2 below.

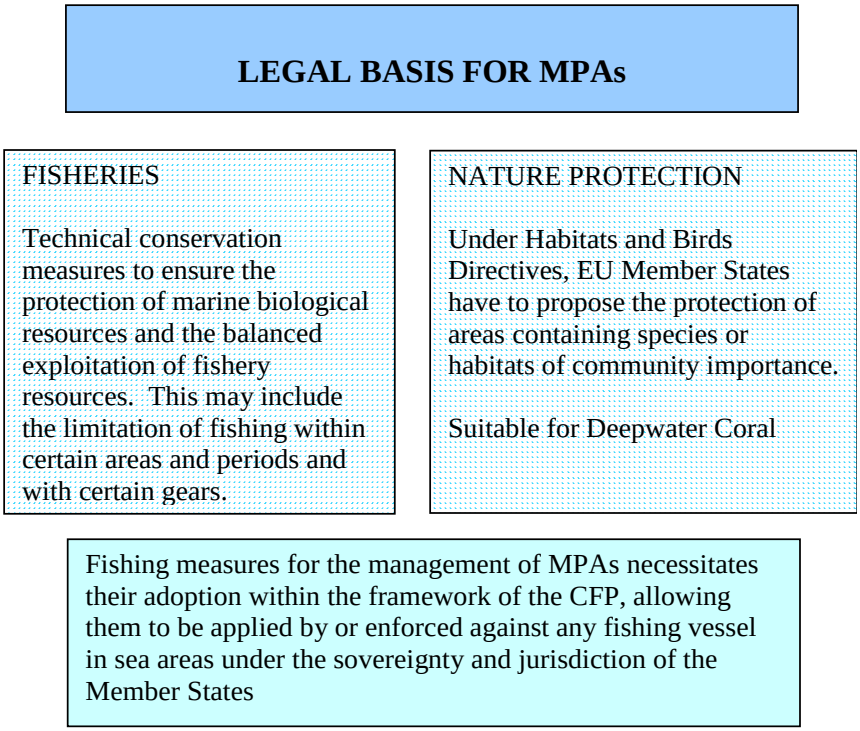

Figure 2 Application of MPAs as a tool for Ecosystem Conservation & Fisheries Management

22. European Marine Strategy

The European 6th Environment Action Programme included a commitment to develop a Thematic Strategy for the protection and conservation of the marine environment with the overall aim *"to promote sustainable use of the seas and conserve marine ecosystems"*. While the Strategy is primarily focused on the protection of the regional seas bordered by EU countries, it also takes into account the international dimension in recognition of the importance of reducing the EU's footprint in marine areas in other parts of the world, including the High Seas. Europe's marine biodiversity is decreasing and continues to be altered. Marine habitats are being destroyed, degraded and disturbed by a range of human impacts

including fishing activity.[65] Against this background, the objective of the Strategy is to protect Europe's oceans and seas and ensure that human activities are carried out in a sustainable manner so that current and future generations enjoy and benefit from biologically diverse and dynamic oceans and seas that are safe, clean and productive. Significantly, the strategy advocates an ecosystem-based approach and the European Commission have recently brought forward a draft Framework Directive for the protection of the marine environment. The Draft Directive envisages the establishment of European Marine Regions and the implementation of strategies at a regional level. Where the European Union has legal competence, action to implement the strategies will be implemented through the medium of European Community law such as the CFP. Significantly, the Habitats and Birds Directives will be used to protect and conserve marine biodiversity. In particular, the Strategy will foster efforts to set up EU marine protected areas through the NATURA 2000 network. In addition, the ecosystem-based approach is fully in line with the EU's biodiversity policy and will contribute to the EU's objective to halt the loss of biodiversity in Europe by 2010. Implementing the Strategy will enable the EU to fulfil obligations contracted under relevant international agreements and will improve the EU's contribution to globally agreed goals and targets. The Strategy will be reviewed in 2010 and feed into the final evaluation of the 6th Environmental Action Programme.

23.European Maritime Policy

The European Commission published a Communication on the future EU Maritime Policy on the 2nd March 2005.[66] The Marine Strategy will deliver the environmental pillar of the Maritime Policy that will be elaborated by the European Commission in a Green Paper in 2006.

[65] See, OSPAR Commission, "QSR2000" (published in 2000).
[66] Communication of 2 March 2005, entitled "*Towards a future Maritime Policy for the Union: a European vision for oceans and seas*".

Part 4: Tentative conclusions

Although it may be early to assess the adequacy of the existing legal regime for establishing MPAs in sea areas under the sovereignty and jurisdiction of the Member States, a number of tentative conclusions are evident and may be further refined in light of the findings of the scientific studies. These are as follows:

1. There are a broad range of international and European legal instruments and policy documents that recommend the adoption of MPAs as a tool for ecosystem conservation and fishery management.

2. There is sufficient legal basis within the CFP and European environmental policy to implement an MPA driven approach.

3. Any measures to implement MPAs for fishery management purposes must be subject to scientific advice and assessment by ICES and STECF.

4. In the Atlantic and North Sea, specific measures may be adopted by amending Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.

5. In the case of the Baltic Sea, specific measures could be adopted by amending Council Regulation (EC) No 88/98 of 18 December 1997 which lays down certain technical measures for the conservation of fishery resources in waters of the Baltic Sea, the Belts and the Sound.

6. Protection of deepwater coral requires designation as a Special Area of Conservation under the Habitats Directive and by means of a technical conservation measure under the CFP.

From a legal perspective, MPAs may only be used as a tool for ecosystem conservation and fisheries management if they are: proportionate; based on scientific evidence; enforceable; specific for each marine area and objective; consistent with the ecosystems approach, and; conform to European and international law.

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