

# Establishing large-scale trans-boundaries MPA networks: the OSPAR example in North-East Atlantic

## Introduction

A pledge to establish a representative network of marine and coastal protected areas by 2012 was made at the World Summit on Sustainable Development in 2002 (Report of the World Summit on Sustainable Development, 2002). In 2004, the Convention on Biological Diversity agreed upon a firm commitment to establish a network of MPA by 2012<sup>1</sup>. More recently the World Conservation Union (IUCN) has supported these the previous commitment to implement MPA networks by producing a guide aimed at developing national and regional capacity for building MPA networks (IUCN, 2007). IUCN recognises trans-boundaries MPAs represent one strategy for cooperative management and may involve high-level political initiatives.

At a European level, the EU Member States have adopted legislation to protect both natural habitats and wild flora and fauna (EU habitats and birds Directives) through the establishment of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which together contribute to a network of protected sites, the Natura 2000 network.

At the regional level, in the North-east Atlantic, the Oslo and Paris Commission ((OSPAR) are also aiming to establish a coherent network of MPAs by 2010. This commitment by the OSPAR Contracting Parties has not been easy to achieve due to the ecological, political, legal, social and economical issues relating to this geographical area.

This case study provides an update of current progress towards the OSPAR MPA network. Since this network is still at its early stages, the study focuses on the preliminary steps taken in establishing the MPA network in relation to the identification and selection of MPAs. The main challenges arising from the implementation of a coherent large-scale trans-boundaries network of MPA and the main priority objectives to define in order to achieve this. First part gives a background of the OSPAR initiative toward the implementation of an MPA network. Then, further details are presented in relation to the process of implementing the OSPAR network. Finally, after an overall assessment of the OSPAR network, we will be able to draw on some conclusions about this initiative and raise some strategic questions to deal with when implementing such a network.

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<sup>1</sup> “An MPA network can be defined as a collection of individual marine protected areas operating cooperatively and synergistically, at various spatial scales, and with a range of protection levels, in order to fulfil ecological aims more effectively and comprehensively than individual sites could alone.” (IUCN, 2007)

# 1. History and background of the OSPAR initiative

The 1992 OSPAR Convention is the current instrument guiding international cooperation on the protection of the marine environment of the North-East Atlantic. It combined and up-dated the 1972 Oslo Convention on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. The work under the Convention is managed by the OSPAR Commission, made up of representatives of the Governments of 15 Contracting Parties and the European Commission, representing the European Community. The work under the Convention is guided by the Ministerial Declarations and Statements made at the adoption of the Convention and at the Ministerial Meetings of the OSPAR Commission. The work applies the ecosystem approach to the management of human activities.

In 1998, the OSPAR committee made a decision to “implement a network of marine protected areas” to “protect and conserve the biological diversity of the maritime area and its ecosystems which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas which have been adversely affected” .

However, key developments on the MPA network came later with the 2003 Bremen Statement adopted by the second Ministerial meeting of OSPAR Commission. The Statement included the commitment to, ‘through working with HELCOM (Helsinki Convention) and the European Community, identify the first set of Marine Protected Areas (MPAs) by 2006 and establish remaining gaps’. It also aimed at completing by 2010 a joint network of well-managed MPAs that, together with the European NATURA 2000 network, is ecologically coherent<sup>2</sup>. In addition, the OSPAR Commission adopted a document detailing the guidelines for selecting and managing an OSPAR Network of marine protected areas (OSPAR, 2003). Both those documents have set the basis for the OSPAR MPA network and its priority objectives<sup>3</sup>. These are largely ecological and do not include social or economical considerations. Every year the OSPAR Commission updates the status of the OSPAR MPA network. Additionally, meetings of the MPA, Species and Habitats (MASH working group) provide guidance for the implementation of the network, with regard to its ecological coherence for instance.

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<sup>2</sup> A definition of ecological coherence of MPA network has been agreed by the meeting of the working group on MPA, Species and Habitats (MASH) in Norway, 5-8 October 2004. The network should therefore be based on 14 recommendations including key criteria (e.g. connectivity of MPAs, representativity of critical habitats and species, etc.)

<sup>3</sup> Aims are to:

- protect, conserve and restore species, habitats and ecological processes which have been adversely affected by human activities;
- prevent degradation of, and damage to, species, habitats and ecological processes, following the precautionary principle
- protect and conserve areas that best represent the range of species, habitats and ecological processes in the maritime area”

## **2. Process for establishing the OSPAR network**

### ***a. Process of identification and selection of MPAs***

The first process is based on 3 different stages: identification of possible sites; prioritisation of sites for designation; and use of the criteria to meet the aims of the OSPAR network. It is also important to note that such process is highly reliant on the scientific expertise and data provided by contracting parties.

The identification of possible sites relies on the ecological criteria/considerations first defined in the guidelines provided by the OSPAR Commission for the identification and selection of MPA (OSPAR, 2003) and updated since. An area will qualify for selection if it meets several of the criteria defined in this document. Those are: threatened or declining species and habitats/biotopes; important species and habitats/biotopes; ecological significance; high natural biological diversity; representativity; sensitivity; and naturalness. Criteria are described as cited in the OSPAR report in Appendix 1. A further assessment of the ecological coherence has been conducted in 2006 and the main criteria identified were representativity, connectivity, replication and adequacy/viability. Those new criteria have been also adopted by the HELCOM network to allow a better coordination.

The prioritisation of sites for designation is based once again on the ecological criteria. But a list of practical criteria/considerations is also taken into account. Those encompass markers criteria like size, potential for restoration, etc. details about those criteria are given in appendix 2. The main objective for this step is the identification of most suitable sites for the network implementation.

Last step is the study of correlation between the criteria defined and the objectives of the OSPAR network. This should lead to the identification of the final components of the network.

### ***b. Further steps in MPA network's development***

To date, the OSPAR network remains at an early stage of implementation, where the aim is to filling-in the spatial gaps between MPAs in accordance with the criteria defined for selection (see above). After identification and selection of MPA, the OSPAR Commission has defined the new steps to be taken - this has been recently described in a guidance document (OSPAR, 2007b). Commission will assess the representativity of the network through three main stages, which consist in testing the representativity of the network with regard to:

- Spatial distribution;
- Relevant Dinter biogeographic provinces<sup>4</sup>; and
- Threatened or declined habitats or species.

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<sup>4</sup> Dinter (2001) has identified a number of biogeographically-determined regions within the OSPAR Maritime area using primarily the factors of temperature, depth and currents and has validated these with biological data. The biogeographic regions proposed by Dinter should form the initial framework for incorporating biogeographic variation within the network.

Once representativity is insured by a relevant number and well-distributed MPAs, the network will effectively get started, and further actions will consist in the effective management of the network, as required by the objectives defined by the OSPAR Commission. Parties will then have to develop a management plan, in accordance with the OSPAR management guidelines, to achieve the aims for which the area has been selected. They also have to determine what management measures would be appropriate in the light of those guidelines.

### 3. Assessment of the OSPAR MPA network

Every year the OSPAR Commission produces a report on the status of the OSPAR network of MPA. The most recent status report (OSPAR, 2007a) has presented updated information about the establishment of the OSPAR network.

By end 2006, the OSPAR network of MPAs consisted of about 26 000 km<sup>2</sup>, which is not representative of the whole North-East Atlantic (see Appendix 3 for a map of reported OSPAR MPAs). It totals 87 sites nominated by Contracting Parties, partly already adopted by the OSPAR Commission. The vast majority of sites nominated fall within territorial waters<sup>5</sup>. Only 9 sites fall within an Exclusive Economic Zone (EEZ). One site is on an extended continental shelf. No sites are in areas beyond national jurisdiction (see Appendix 3).

The updated list of reported OSPAR MPAs by Contracting Parties has enabled us to provide, for each of the Contracting Parties, the size and number of MPAs (see table 1).

Country	Number of reported OSPAR MPAs	Total surface covered by reported OSPAR MPAs (hectares)	Average size of reported OSPAR MPAs (hectares)
France	8	27 453	3 432
Germany	4	1 192 278	298 069
Norway	6	190 539	31 756
Portugal	7	168 572	24 081
Sweden	6	97 177	16 196
United Kingdom	56	985 841	17 604

**Table 1: Main features of the reported OSPAR MPAs by Contracting Parties (2006)**

Source: data from (OSPAR, 2007a)

It is relatively obvious that the average sizes of selected MPAs differ among the Contracting Parties. Those dissimilarities between Parties bring the question of the coherence in the design of the MPA network. The OSPAR Commission has recognised that it is not possible to consider the network as coherent now, but the dissimilarities in the MPAs selected is unlikely to change in the future. For instance, MPAs selected in the UK are almost all Special Areas of Conservation (SAC) designated under the EC Habitats Directive, whereas half of the areas selected in Germany are national parks, which may have different characteristic and purposes.

Regarding the high seas MPAs, little has been done by OSPAR so far. The 2007 meeting of the working group on MPA species and habitats (MASH) has put forward

<sup>5</sup> Territorial waters, or a territorial sea, as defined by the 1982 United Nations Convention on the Law of the Sea, are a belt of coastal waters extending at most twelve nautical miles from the baseline (usually the mean low-water mark) of a coastal state.

the issue of high seas MPAs, and plan to get proposed sites by April 2008. The high seas MPAs are easier to deal with than nearshore areas because they are areas beyond national jurisdiction and the OSPAR Commission can therefore have more input into those. In addition, they represent key areas with regard to specific habitats (e.g. deep-sea corals) and migratory species.

Importantly, the main issues raised by the status report (OSPAR, 2007a) and from interviews with OSPAR secretariat include the followings:

- Small area of coverage by the MPA network with regard to the overall surface to be managed;
- There is no reported MPA for Belgium, Iceland, Ireland, The Netherlands and Spain, whereas they present key areas for MPA network implementation;
- Uneven distribution of sites, mostly located on the coast and only one high sea MPA site proposed so far;
- Overlapping of OSPAR sites with Natura 2000 sites in the EU countries (78 of the 81 EU sites are Natura 2000 sites) while OSPAR perspective and objectives are broader; and
- Lack of coordination with the HELCOM network (i.e. different databases and different MPA selection criteria). Those criteria were redefined in 2006 in order to be coherent with HELCOM's.

#### **4. The challenges of trans-boundaries MPA networks: The OSPAR example**

It is reasonable to acknowledge that ecosystems, habitats and species rarely correspond to political or jurisdictional boundaries. This suggests that some cooperation is needed between management bodies which exert their jurisdiction. Indeed, jurisdiction is shared within the sea between several authorities: the EU and its Member States, but also national authorities on the northern shore (Norway, Denmark and Iceland). The implementation of a trans-national network like the OSPAR network therefore poses problem with regard to national jurisdictions. That is why OSPAR has only a political role in building the MPA network.

One of the main issues raised by the OSPAR secretariat is related to inconsistency: contracting parties have different first different approaches to marine habitat protection and species conservation. But they also have to deal with dissimilar concerns: the ecological issues in the Azores (Portugal) vary a lot from the issues dealt with in Norway, etc. Thus, it is important to take carefully into account ecological coherence when building the network in order to come with a good balance in establishment and management measures.

One other major challenge is the commitment from contracting parties into the implementation of the network. Since parties may already be part of the Natura 2000 sites network or have their own national network, it may be difficult to get them involved in the building of an additional network. Another issue for bodies like OSPAR to deal with is therefore the degree of freedom they want to give to their parties. For the moment, OSPAR leaves parties with a high degree of freedom and the only mean for OSPAR to get parties committed to a trans-boundaries MPA network is political pressure, which may appear weak to some extent.

## Conclusion

This paper provides an overview of the OSPAR MPA network so far, in the form of an interim assessment. It is too early to draw conclusions on the success or failure of the OSPAR network. Some insights have been given, but one must keep in mind that the network is at its first steps of implementation. Also, differences in the way contracting parties are committed to the network have led to dissimilar stages of implementation.

The OSPAR initiative could help the building of other networks like in the Mediterranean Sea where habitat protection and species conservation is highly required. In the case of the Mediterranean, a network would allow an effective cooperation between management bodies and scientists. It could provide countries with lacking MPAs with an effective support for national MPAs implementation. In that case, the network would be used 1) for developing individual MPAs in areas where they are needed, and 2) to coordinate a network of MPAs through a trans-boundaries initiative.

This case study enables us to draw on some strategic questions to treat before the establishment of an MPA network:

- How to build up a coherent network of MPA in a **complex and conflicting** ecological, legislative, political, and social environment ?
- What are the rationales to get Contracting Parties involved in the building of a trans-boundaries network which **interconnect** sub-networks (e.g. Natura 2000 network) and national networks?
- Which degree of **hands-on** (legal, political and managerial) is necessary in order to achieve a coherent trans-boundaries network of MPAs?
- What are the reliable **data** in order to implement an effective and sustainable network and to assess its efficiency later on?
- What are the priority objectives in order to coordinate actions with **adjacent trans-boundaries networks** (e.g. HELCOM and OSPAR networks)?

## References

Dinter WP, 2001, Biogeography of the OSPAR Maritime Area. Bundesamt for Naturschutz, Bonn, Germany. 167 pp.

IUCN/WCPA, 2007, Establishing Networks of Marine Protected Areas: A Guide for Developing National and Regional Capacity Building MPA Networks. Non-technical summary report.

OSPAR, 2003b, Guidelines for the Identification and Selection of Marine Protected Areas in the OSPAR Maritime Area (Reference number: 2003-17)

OSPAR, 2007a, 2006 Report on the Status of the OSPAR Network of Marine Protected Areas

OSPAR, 2007b, Three Initial Spatial Tests Looking at the Ecological Coherence of the OSPAR MPA Network, meeting of MASH working group, Brest (France), 5-8 November 2007

Further details have been given on the OSPAR MPA network with two members of the OSPAR:

- Jeff Ardron, Scientific Advisor on Marine Protected Areas, German Federal Agency for Nature Conservation Marine and Coastal Nature Conservation Unit; and
- Sebastian Unger, policy analyst in the OSPAR secretariat.

For further information, visit the OSPAR website: [www.OSPAR.org](http://www.OSPAR.org)

# **Appendix 1: Ecological criteria/considerations**

Source: OSPAR, 2003

An area qualifies for selection as an MPA if it meets several but not necessarily all of the following criteria. The consideration and assessment of these criteria should be based on best available scientific expertise and knowledge.

## **1. Threatened or declining species and habitats/biotopes**

The area is important for species, habitats/biotopes and ecological processes that appear to be under immediate threat or subject to rapid decline as identified by the ongoing OSPAR (Texel-Faial) selection process.

## **2. Important species and habitats/biotopes**

The area is important for other species and habitats/biotopes as identified by the ongoing OSPAR (Texel-Faial) selection process.

## **3. Ecological significance**

The area has:

- a high proportion of a habitat/biotope type or a biogeographic population of a species at any stage in its life cycle;
- important feeding, breeding, moulting, wintering or resting areas;
- important nursery, juvenile or spawning areas; or
- a high natural biological productivity of the species or features being represented.

## **4. High natural biological diversity**

The area has a naturally high variety of species (in comparison to similar habitat/biotope features elsewhere) or includes a wide variety of habitats/biotopes (in comparison to similar habitat/biotope complexes elsewhere).

## **5. Representativity**

The area contains a number of habitat/biotope types, habitat/biotope complexes, species, ecological processes or other natural characteristics that are representative for the OSPAR maritime area as a whole or for its different biogeographic regions and sub-regions.

## **6. Sensitivity**

The area contains a high proportion of very sensitive or sensitive habitats/biotopes or species.

## **7. Naturalness**

The area has a high degree of naturalness, with species and habitats/biotope types still in a very natural state as a result of the lack of human-induced disturbance or degradation.

## **Appendix 2: Practical criteria/considerations**

Source: OSPAR, 2003.

### **1. Size**

The size of the area should be suitable for the particular aim of designating the area, including maintaining its integrity, and should enable the effective management of that area.

### **2. Potential for restoration**

The area has a high potential to return to a more natural state under appropriate management.

### **3. Degree of acceptance**

The establishment of the MPA has a comparatively high potential level of support from stakeholders and political acceptability.

### **4. Potential for success of management measures**

There is a high probability that management measures and the ability to implement them (such as legislation, relevant authorities, funding, and scientific knowledge) will meet the aims for designation.

### **5. Potential damage to the area by human activities**

It is an area where significant damage by human activity may happen in the short term.

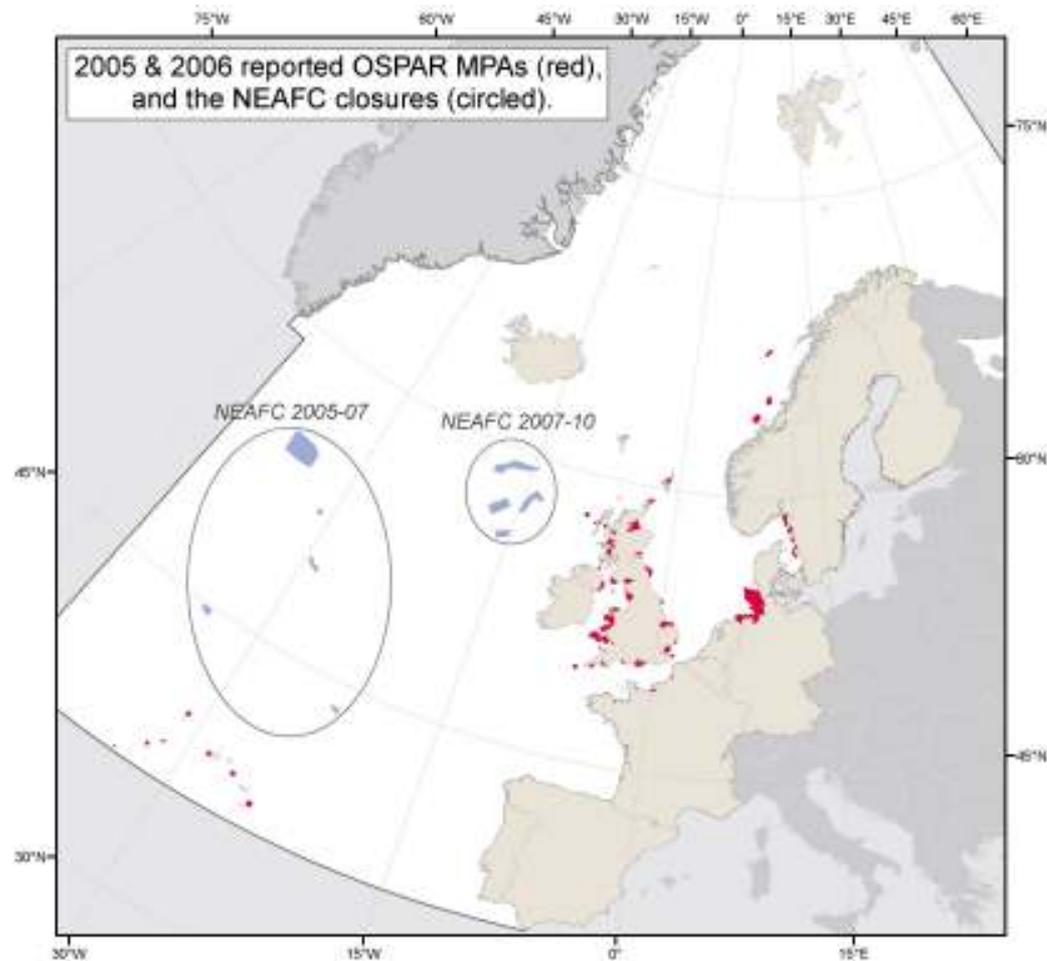
### **6. Scientific value**

The area has a high value for scientific research and monitoring.

### Appendix 3: Map of MPA nominations

Source: OSPAR, 2007a

n.b.: To increase visibility, the outlines of the reported OSPAR MPAs (in red) and NEAFC fisheries closures (blue)<sup>6</sup> are outlined slightly larger than to scale. French data are © MNHN.



<sup>6</sup> It is however noted that NEAFC fishery closures are not OSPAR MPAs.