

OSPAR CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC



GUIDELINES FOR THE MANAGEMENT OF MARINE PROTECTED AREAS IN THE OSPAR MARITIME AREA

(Reference Number: 2003-18)¹

1. Introduction

1. At Sintra, Portugal, in 1998 the Ministerial Meeting of the OSPAR Commission adopted the new Annex V 'On the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area' and an accompanying OSPAR Strategy. The objective of the Commission is to take the necessary measures to protect and conserve the ecosystems and the biological diversity of the maritime area which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas which have been adversely affected.

2. The Commission will, *inter alia*, promote the establishment of a network of marine protected areas ("MPAs") to ensure the sustainable use, protection, and conservation of marine biological diversity and ecosystems – the OSPAR Network of Marine Protected Areas ("the OSPAR Network").

3. The establishment of the OSPAR Network will also contribute to, and take account of, Contracting Parties' obligations under other international Conventions and Directives, including EC Directives (and in particular the Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna and the Council Directive 79/409/EEC on the conservation of birds), and measures taken under the Berne, Bonn (including its regional agreements) and Ramsar Conventions, the Convention on Biological Diversity, the Helsinki Convention, the Barcelona Convention, the Trilateral Wadden Sea Co-operation and the commitments made, *inter alia*, at the World Summit on Sustainable Development and the North Sea Conferences.

2. The Aim of the OSPAR Network

4. The components of the OSPAR Network will, individually and collectively, aim to:

- protect, conserve and restore species, habitats and ecological processes which are adversely affected as a result of 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 OSPAR maritime area.

¹ Amended by BDC 2006 (BDC 2006 Summary Record (BDC 0610/1) § 3.46) through the inclusion of Appendix 1.

5. The OSPAR Network should take into account the linkages between marine ecosystems and the dependence of some species and habitats on processes that occur outside the MPA most directly concerned. These relationships are often more complex and occur on a larger scale than those of terrestrial ecosystems.

6. The OSPAR Network should form an ecologically coherent network of well-managed MPAs. This is particularly important for highly mobile species, such as certain birds, mammals and fish, to safeguard the critical stages and areas of their life cycle (such as breeding, nursery and feeding areas).

3. Management of the MPAs of the OSPAR Network

7. Management plans will be valuable tools to help achieve the objectives of the OSPAR Network. These plans can be developed using the guidance in Section 4, and with reference to the human activities and possible impacts listed in Section 5 (Tables 1 and 2). International and European Community legislation that may assist with the implementation of management measures is referred to in section 6. National legislation may be required to support the management of the MPAs of the OSPAR Network within EEZs. The effectiveness of the management measures will need to be evaluated and the management plan will need to be adapted as necessary and appropriate on a regular basis. The management plan should be developed with the active involvement of relevant stakeholders from the earliest stages.

4. Outline structure for a Management Plan for an MPA of the OSPAR Network

8. The following provides guidance on the outline structure of a management plan for an MPA of the OSPAR Network. It is based on the IUCN model - see Salm, R. V., & Clark, J. R. 2000. IUCN Marine and Coastal Protected Areas. IUCN, Gland: 370pp. and Kellerher, G. 1999. Guidelines for Marine Protected Areas, IUCN, Gland: 107pp. for further details. A practical guidance for establishing management plans is at Appendix 1 in the form of an annotated outline structure.

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5. Human activities and their impacts that may need to be regulated

9. The tables below provide a list of human activities in the marine environment and some of the main effects that these activities might have on marine habitats and species. These may need to be regulated within or in the vicinity of an MPA in order to achieve the objectives of the MPA designation. The tables are intended as guidance only and should not be considered comprehensive. The two tables may also be combined in a matrix of activities against effects in order to indicate what might be causing the threat or decline to habitats and species within the site.

10. Action may be needed to regulate activities both within the areas of national jurisdiction and in the rest of the maritime area as appropriate.

Table 1: Examples of human activities

- Extraction of sand, stone and gravel
- Oil and gas exploration and exploitation and of other mineral resources
- Dumping of solid waste and dredged spoils
- Constructions (e.g. artificial islands, artificial reefs, offshore wind-farms)

- Coastal defence measures
- Traffic infrastructure (e.g. dredging of navigational purposes)
- Land-based activities (emissions and inputs from e.g., agriculture, forestry, industry, urban waste water)
- Aquaculture/mariculture
- Shipping and navigation
- Military activities
- Placement and operation of submarine cables (including the use of the water body as a conductor for electricity)
- Placement and operation of pipelines
- Fishing, hunting, harvesting
- Tourism and recreational activities
- Research
- Bio-prospecting

Table 2: Examples of the effects of human activities

a. *physical*

- Substratum removal
- Substratum change (inc. smothering)
- Increased siltation (deposited sediment)
- Turbidity changes (suspended sediment)
- Emergence regime changes (inc. desiccation)
- Water flow rate changes
- Temperature changes
- Wave exposure changes
- Noise disturbance
- Visual disturbance
- Changes in electromagnetic fields
- Litter

b. *chemical*

- Synthetic compound contamination
- Heavy metal contamination
- Hydrocarbon contamination
- Radionuclide contamination
- Nutrient changes (eutrophication)
- Salinity changes
- De-oxygenation

c. biological

- Physical damage to species (inc. abrasion)
- Displacement (moving) of species
- Removal of target species
- Removal of non-target species
- Changes in population or community structure or dynamics
- Introduction of microbial pathogens or parasites
- Introduction of non-indigenous species and genetically modified organisms

11. The following options can be considered, either individually or in any combination, for managing the human activities mentioned above and their possible effects:

- A. Maintenance of existing levels of activities
- B. Regulation of the intensity of activities
- C. Regulation of activities in space (including zoning)
- D. Regulation of activities in time (ban of certain activities for a specific period, e.g. during breeding seasons or spawning periods)
- E. Introduction of less harmful practices (e.g. change in fishing gear, less noisy engines)
- F. Substitution of materials or substances (e.g. to avoid contamination)
- G. Total ban of activities
- H. Restoration

6. International and European Community legal regulations and legal instruments to achieve the management objectives

12. International and European Community legal regulations and instruments relevant to achieving the management objectives can be found in Annex 6 of summary record of the Fourth Workshop on Marine Protected Areas in the OSPAR Area: “Legal regulations and legal instruments, as at June 2002, to achieve the management objectives of the OSPAR Network of Marine Protected Areas” (MPA 02/8/1, Annex 6).

PRACTICAL GUIDANCE FOR ESTABLISHING MANAGEMENT PLANS FOR OSPAR MARINE PROTECTED AREAS²

1. This outline is meant to be used as a checklist for all possible information that could be included in management plans for OSPAR MPAs.
2. Proper management is required for all sites. Where management plans are used, these should be relevant to the aims of the site or sites covered by the plan. The final structure and content of the plan will depend on the country, site, responsible agency and available information, and therefore not all information below may be necessary for each plan. Guidance on information that could or should be included under each heading or subheading is provided ("Annotated description of OSPAR MPA management plan components").
3. For EU-member states the Birds and Habitats Directives are of great value to the establishment of the Joint OSPAR and HELCOM Network of marine protected areas. Member states are obliged to implement these regulations by nominating and managing, *inter alia*, marine protected areas within the NATURA 2000 network. Where NATURA 2000 sites are also reported as OSPAR MPAs, Contracting Parties should be under no obligations to take any further action. Where management plans for NATURA 2000 sites exist, they will be sufficient.
4. Chapter headings written in regular font are recommended for all plans, while information under the headings written in *italics* is only needed if it exists and/or is of relevance to the site in question.

In the "Annotated description of OSPAR MPA management plan components" the text in boxes describes the type of information that could be included under the associated heading.

² Only applicable to MPAs under national jurisdiction (Territorial Sea, EEZ or equivalent)

Annotated description of OSPAR MPA management plan components

Title

Format the title page and the table of contents according to the standards of your country and/or agency. Nevertheless, the minimum requirements include:

- Name of the area subject to the plan and its status;
- the words MANAGEMENT PLAN;
- name of the authority/authorities responsible for implementing the plan;
- date when the plan was prepared, and the expected date of review.

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List the headings and sub-headings (optional) and page numbers.

1. Executive summary

Cover the essential issues and necessary decisions, including:

- Reasons why the plan was prepared (conservation objectives);
- period of time to which it applies, revision schedules – if any;
- any special conditions which controlled its preparation including the legislative basis and authority for plan development;
- principal provisions of the plan;
- the estimated budget;
- acknowledgements.

2. Introduction

2.1 Purpose and scope of the plan

Introduce the general long-term vision describing the desired ecological and socio-economic state of the site. The vision will set the general long-term goals and objectives for the management, which reflect the purpose(s) for which the area is protected including its role in a larger network.

2.2 Legislative authority for the plan (national and international)

Introduce the general legislative framework for the site and associated legislative authorities having the legal power for individual aspects of management (including fisheries).

3. Description of the site and its features

Provide relevant information on the following categories. For detailed information, use attachments and maps.

3.1 Regional setting: location, access

Provide the name of area and location, including:

- Location: state, district, municipality etc. and/or sea regime (e.g. EEZ of Finland);
- marine/terrestrial boundaries (coordinates of the series of points that describe the borders of the area – position of central point and approximate radius as a minimum). Further relevant information (e.g. map with boundaries, grid in an appropriate scale and any explanatory information) in an appendix;
- surface area: square kilometres, hectares or other appropriate units;
- geographic description of regional setting and accessibility, e. g. the regional land and sea surroundings and access routes to and through the area;
- character and use of adjacent areas; e.g. other protected areas.

3.2 Conservation values of the site

- Indicate the area's degree on naturalness, rarity, aesthetic values, and degree of habitat representativeness;
- indicate the type of information used to assess this status.

3.3 Features

From the following physical, biological and cultural features listed below, introduce data pertinent to the management of the site, as appropriate, and according to what is available; the rest can be considered voluntary.

3.3.1 Physical

- Geology: e.g. evolution, ongoing processes, erosion, accumulation /deposition;
- geomorphology: coastal and marine landscapes, sediment types and qualities;
- bathymetry: a bathymetric map with the highest resolution available, illustrating submarine structures (e.g. sills, banks, reefs, flats, trenches and canyons); when possible, refer to bathymetric GIS datasets (DEM, depth contours);
- physical (oceanographic) parameters: e.g. figures on climate and meteorology incl. water temperature and ice conditions, currents, water level changes/tidal regime, salinity, fresh water input, stratification and transparency;
- water and sediment quality (chemical parameters), e.g. oxygen, nutrients and pollutants and contaminants.

3.3.2 Biological

- Biogeographic region and/or features;
- description of habitats/biotopes; habitat/biotope maps indicating which classification, and when appropriate, what hierarchical level of classification was used can be included as appendices;
- important biocoenoses (associated plant/animal communities);
- flora: dominant marine, coastal, and estuarine plants and where available, phytoplankton; when possible, a summary of the plant community and related environmental factors, such as the depth of occurrence, together with any botanical features that may have special interest. Plant species identified in the area could be listed in an appendix, coverage of the area;
- fauna: dominant marine, coastal or estuarine fauna, with an account of their ecological relationships and spatial coverage, if known. Full information on mammals, reptiles, amphibians, fish, birds, invertebrates and zooplankton as appropriate; could be listed in an appendix;
- species covered by the national and international red lists (HELCOM/OSPAR lists, annexes of the Habitats and Birds Directives);
- indigenous animals and plants;
- migratory animals that periodically or occasionally visit the area ; where known, major migration routes and important areas (reproduction zones, areas where juveniles grow up, resting areas, feeding areas etc) along the migration routes.

3.3.3 Cultural

- Archaeological information on the people who used the area in prehistoric times and/or information giving clues to species that were found in the area;
- species hunted/collected in historic times; techniques for managing them, if any;
- areas of religious/cultural significance;
- historic relicts, such as submerged wrecks and any other submerged structures of historic interest;
- written or otherwise documented history.

3.4 Existing uses

Concentrate on a summary of present uses as described in the sub-chapters. Please provide in this context information on past types and levels of use. Indicate clearly who the users are, where they conduct their activities, at what times of the year, for how long and the social and economic importance of such uses. Provide information on the known or likely impacts on natural features. Describe, as appropriate:

- Recent developments and ongoing activities;
- future demand;
- uses and activities on land or outside the site, which may affect it.

3.4.1 Recreational

- Recreational values and forms of use;
- Strategies, if any, for developing recreational activities following the principles of sustainable use

3.4.2 Commercial

- Forms of commercial uses and activities;
- estimate of the commercial value of these activities;
- future developments.

3.4.3 Research and education

- Ongoing and proposed research projects and programmes on e.g. biological and socioeconomic issues;
- ongoing and proposed educational programmes and activities, general or specific, target groups and users.

3.4.4 Traditional uses

- Ongoing traditional user rights, uses and management practices;
- their importance of and impacts on the site, including conflicts with conservation, if any;

- future development/demand for traditional uses.

3.5 Existing legal and management framework

Describe the following, depending on the information available and the legal status of the site:

- Legal status (according to national jurisdiction, e.g. marine protected area/national park/protected seascape or other);
- IUCN management category/ies;
- national and international laws and regulations relevant for the site;
- relevant legislative and enforcement authorities;
- non-legal, voluntary-based management frameworks;
- traditional management practices;
- stakeholders of the area and other interested parties (NGOs, local communities etc.).

3.6 Threat and conflict analysis

Scrutinize the actual and potential stress factors and human activities and in order to assess their impacts on biodiversity and natural features (habitats and species) within or close to the MPA boundaries, but also more distant regional influences, when appropriate. A site-specific matrix could be used listing the impacts of human activities against species/habitat sensitivity. These activities include e.g.

- Sources of external or internal pollution and/or eutrophication;
- biological threats, such as the invasion/introduction of alien species;
- exploitation of living and non-living natural resources;
- maintenance or capital dredging and/or dumping activities;
- coastal development and land usage plans and projects;
- dredging related to fishing.

Address also historic, current and potential future conflicts between uses or user groups specific to the area.

3.7 Existing gaps of knowledge

Identify any major gaps of information, concerning e.g.

- State of the environment and the flora and fauna, biological interactions and ecosystem functions;
- their interactions with outside areas relevant to conservation;
- conflicts between human activities and conservation objectives;
- socioeconomic studies and user surveys.

4. Management

4.1 Goals and objectives (general and specific)

4.1.1 General goals and objectives

- State clearly the general conservation goals for the protected area, or if the area is to be subdivided, for each zone or subdivision of the site;
- describe the long-term ideal identifying desired conditions rather than specific actions, e.g. protecting and maintaining the integrity and natural quality of the biotope/habitats/species and ecosystem functions.

4.1.2 Specific goals and objectives

- Name any individual interest features for conservation and give reasons for their need of protection;
- formulate a favourable conservation status for each interest feature;
- describe short- and long-term, measurable steps toward attaining the favourable status for each feature, if necessary, (e.g. implementing a specific programme to protect the *Zostera* field from damage, restoration procedures);
- give time frames for each objective.

4.2 Management tactics

Describe any arrangements and plans for managing the area and its conservation features, and dealing with current/future threats to conservation features and conflicts between interest groups, including all relevant subheadings listed below.

4.2.1 Advisory committees

Describe the purpose, numbers, composition and life span of appropriate advisory committees established e.g. for periodic consultation, evaluation of the effectiveness of management, review process, approval of work plans, authorization of budgets.

4.2.2 Interagency agreements or arrangements with private organizations, institutions or individuals

Describe any policies and plans for interagency agreements, as well as the responsibilities of individual authorities, private organizations, institutions or individuals involved in the implementation and management of the site, including ongoing traditional management practices (if any).

4.2.3 Boundaries

- Describe the demarcation and/ or regulation of marine/terrestrial boundaries, e.g. nautical signs and fences, if any;
- give the reasons for setting the boundaries where they are.

4.2.4 Zoning plan

Provide information on the used zoning system and categories if any (e.g. core zones/sanctuaries, use zones, buffer zones, development areas, areas of impact, natural resource units) and the implications to management, including:

- *The reason/s for which a particular area has been given a zone classification;*
- *management policies for different zones/units.*

4.2.5 Regulations

In case they are needed and/or exist, indicate clearly the legal regulations and/or any voluntary agreements/restrictions on the uses of the area or its sub-areas, as appropriate:

- *Use(s) which are not permitted;*
- *regulations of activities in time and/or space, e. g. zoning and seasonal closures;*
- *permanent restrictions;*
- *new measures/legislation required to enforce the regulations, including. e.g., European fisheries regulations.*

4.2.6 Social, cultural and natural resource studies plan

Indicate any plans to conduct further studies needed in accordance with management information priorities, e.g.:

- *Environmental impact assessments (in a SEA context and spatial planning);*
- *relations/interactions between animal/plant populations and threat factors;*
- *dependence of local population on the natural resources;*
- *effects of tourism and recreation;*
- *what is needed to prevent deterioration*
- *literature studies including ecological changes (in the past)*
- *socioeconomic effects.*

4.2.7 Natural resources

Describe

- *instruments for managing any commercial exploitation of natural resources in the area or exploitation outside the area affecting the site (e.g. exploitation of minerals, sand, gravel, oil and gas, wind energy).*
- *requirements for sustainable land use activities.*

4.2.8 Education and public awareness

Describe any ongoing or planned programs and plans for education and public awareness programs designed to promote protection, sustainable use, public understanding and enjoyment of the area:

- *Plans for general education and awareness programmes: mass media, exhibits, tours, training workshops, promotional items, informal recreational activities with educational focus;*
- *plans for specific education programmes aimed at target audiences (politicians, tourism operators, fishermen, wind farm planners etc.);*
- *production and dissemination of reports on management activities and success;*
- *programmes and co-operative arrangements with educational institutions, public associations and community.*

4.3 Administration

4.3.1 Staffing

- *Provide name and address of the responsible management authority, and other relevant bodies, if necessary;*
- *refer to the respective legal act, if any;*
- *indicate current and future staffing needs and major functions, as well as volunteers and consultants and research institutions.*

4.3.2 Training

Describe the training needs, plans, arrangements and costs for training current and future staff.

4.3.3 Facilities and equipment

Describe the existing/needed equipment and facilities, their purpose and usage.

4.3.4 Budget and business plan

Evaluate the actual and anticipated annual investments and costs.

- *Capital costs (such as one-time costs for buildings, office and field equipment, recruitment of personnel, purchase/rent of land);;*
- *recurrent expenses for running an MPA (wages, insurance, services and utilities etc.);*
- *research and monitoring costs;*
- *possible sources of funds; if needed;*
- *plans for local fund-raising, if any.*

4.4 Surveillance and enforcement

Describe the enforcement approach and policy, including:

- Arrangements to be made to monitor and/or control the compliance with the regulations.
- possibilities to use this type of surveillance for other purposes (see e. g. the paragraph on monitoring, below);
- enforcement tools (e.g. warnings, penalties, fines).

4.5 Monitoring and evaluation of plan effectiveness

Describe any biological, environmental and/or usage monitoring programmes proposed for the site, and provide guidance on how they are to be used in reviewing the management plan. It may also be necessary to develop other monitoring programmes to be initiated during the life span of the current plan. Some of the results from monitoring may eventually be included in the appendices; e. g.

- Research and monitoring programmes on the biological/ecological status;
- plans and guidance for evaluating the effectiveness of the management to meet the goals and objectives of the MPA;
- plans for monitoring the usage, e.g. surveillance proposed to assess movement/activities of people, vessels and aircraft within and through the area, and other regulations;
- indicators used in the effectiveness evaluation, reasons for selecting them, and sources of information (e.g. existing monitoring programs and/or specifically designed surveys).

4.6 Time table for implementation

- If defined give a timetable for the implementation of the current plan and its expected life span;
- If need be give reasons for the lack of a timetable.

5. Appendices

Appendix 1: boundary and area description

This shall provide the legal description of the area and should include at least:

- A numeration with all legally relevant coordinates of the borderline;
- further descriptions of the borderline, e.g. "from point 1 to point 23 the line follows the border of the Territorial Sea";
- grid and other relevant information;
- open legal questions or problems in relation to boundaries.

Appendix 2: legislation

All legislation and regulations relating to the area, and their interactions, should be noted and explained. Where feasible, the legislation that prevails in the event of conflict between the provisions of different enactments should be identified. Implications for the protective status of the area should be identified.

Appendix 3: habitats

A detailed description of the biotopes/habitats of the protected area, especially those that are the objectives of protection, indicating the system used for habitat classification and the reasons for conservation/restoration (HELCOM/OSPAR lists, annexes of Habitats/Birds Directives), information on coherence of the biotopes to similar ones.

Appendix 4: plant species

A comprehensive list of plant species should be attempted for the first management plan. As the process continues over the years, it is quite possible that new plant species will be discovered in the area. Plant names should be listed in broad taxonomic groups, with scientific and common names where possible.

Appendix 5: animal species

Animal species should be listed in broad taxonomic groups: e.g. mammals, reptiles, amphibians, fish, birds and invertebrate phyla and their scientific and common names provided where possible

Appendix 6: nomination proforma

The nomination proforma could be included as an appendix, especially when it already includes the information on plant and animals species, habitats and biotopes under protection. In that case, the proforma can substitute the appendixes 3 to 5 above.

Appendix 7: special features

This section could describe unusual or outstanding features of the area and could range from whale stranding, waterspouts, and oil slicks to spiritual revelations and cultural beliefs

Appendix 8: past, present and potential use

This section should attempt to provide more detail on uses, identify key user groups and assess the social and economic significance of areas.

Appendix 9: risk analysis

An assessment of the possible risks involved in carrying out the management plan could be included as an appendix. Such an assessment makes it possible in some cases to decrease the risk level by planning ahead and it also makes the time table for carrying out the management more realistic.

Maps

Where practicable, the use of overlay presentation is recommended in order to illustrate the associations between such factors as topography, biological communities and major uses.

Attached maps can include e.g.

- Regional setting: location, boundaries, access;
- land/water tenure and jurisdiction;
- land topography and seabed bathymetry;
- geology/sedimentology;
- biology;
- dominant habitats/biotopes;
- major uses, user conflicts and threatened resources;
- zoning.

6. References

In addition to the bibliography used to compile the plan, list the Information sources coming outside the manager's regular information base: governmental and non-governmental organizations, user groups, individuals, consultants, research institutes etc. that have been or will be consulted, and Environmental Impact Assessment reports.