

# Nature Conservation in Europe: Approaches and Lessons

## Annex 1. Further Details of Conventions and Conferences of Key Importance to Nature Conservation in Europe

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### *The Convention on Wetlands (Ramsar Convention)*

The 'Convention on Wetlands of International Importance especially as waterfowl habitat', hereafter referred to as the Ramsar Convention, is an intergovernmental treaty that was signed in February 1971. Its mission is 'conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world' (Ramsar Convention, 2015). The Convention's definition of wetland is broad, and includes lakes and rivers, underground aquifers, marshes, wet grasslands, peatlands, estuaries, deltas and tidal flats, shorelines and coastal habitats (e.g. kelp and sea-grass beds) up to 6 m depth at low tide; and all human-made wetlands such as canals, fish ponds, reservoirs and salt pans (Ramsar Convention, 2012).

It has three principal obligations (pillars of action) which require Contracting Parties to:

- Designate and sustainably manage internationally important wetlands within the Parties' territories for inclusion in a 'List of Wetlands of International Importance', i.e. Ramsar Sites (based on the criteria in Table 1) [Article 2.1].
- Formulate and implement their planning so as to promote the conservation of Ramsar Sites and, as far as possible, the wise use of all wetlands in their territory [Article 3.1].
- Consult each other about their obligations especially with respect to the conservation and management of internationally shared wetland or water systems [Article 5].

The Convention derived from post-war concern over the progressive loss of wetland habitat for waterbirds. The creation of the International Waterbird and Wetlands Research Bureau (IWRB) stimulated progressive international cooperation via international conferences and co-ordination mechanisms (Kuijken, 2006; Stroud *et al.*, 2022) and gained energy from the ground-breaking 'Project Mar' wetland conference in 1962 co-organised by IUCN, IWRB and the International Council for Bird Preservation (ICBP) (Hoffmann, 1963). Project Mar also provided a first inventory of internationally important wetlands in Europe and Northern Africa (Olney, 1965), some of which have now been protected under the Convention.

Matthews (1993) and Stroud *et al.* (2021b) document the negotiating history of the wetlands Convention from Mar to its final agreement in the town of Ramsar in Iran in 1971, as well its implementation for its first 21 years. It entered into force in December 1975 and EU Member States and most/all other European countries have progressively acceded (NCE Table 3.3, Stroud *et al.*, 2023), the earliest signatories globally being Sweden, Norway, Finland and Greece). The number and extent of Ramsar Sites in the selected Member States are provided in the standard protected area table in each national chapter of *Nature Conservation in Europe* (Tucker, 2023a).

Whilst one of the principal drivers for the development of the Convention had been concern over the impacts of wetland loss on waterfowl (i.e. waterbirds) the wider socio-economic importance of wetlands (such as water storage and purification, fish resources, recreation and tourism) was also explicitly recognised (Firouz, 1971). With time the Convention has increasingly promoted a wider appreciation of these diverse wetland values and accordingly also pursued broader wetland conservation goals in line with the broad agenda of the CBD for which it formally delivers its Inland Waters Biodiversity Programme of Work<sup>1</sup>. Consequently, the Convention is now normally known as the 'Wetlands Convention' rather than its full legal title with the specific reference to waterfowl habitat.

<sup>1</sup> <https://www.cbd.int/waters/pow.shtml>

**Table 1** The Ramsar Convention criteria for identifying Wetlands of International Importance

<b>Group A of the criteria</b>		1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
Sites containing representative, rare or unique wetland types		
<b>Group B of the criteria</b>	Criteria based on species and ecological communities	2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
		3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
		4: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
	Specific criteria based on waterbirds	5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.
		6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
	Specific criteria based on fish	7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
		8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.
	Specific criteria based on other taxa	9: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.
Sites of international importance for conserving biodiversity		

Source: Ramsar Convention (2012)

The Ramsar Convention was the first of the modern environmental conventions (Stroud *et al.*, 2021a), and it has had an important influence on nature conservation at international scales, not least in establishing a significant European network of internationally protected wetlands prior to the advent of the Natura 2000 network: 133 Ramsar Sites in 10 then, or yet to be, Member States had already been designated at the time the Birds Directive entered into force in 1979, as well as introducing the concept of ‘wise-use’ (below).

#### *Ramsar Site designation*

The central obligation of Parties to the Convention is the designation of at least one wetland of international importance. This legal requirement for acceding to the Convention is the reason why the EU is not a Party: it has no territory to designate, and the early nature of the Convention lacked provision for membership by Regional Economic Integration Organisations<sup>2</sup>.

Member States have designated widely varying numbers of Ramsar Sites, in part related to the extent of internationally important wetland but also to the length of time since accession. Parties take on themselves an obligation to maintain the ecological character of such Ramsar Sites (Stroud, 2018). However, this policy obligation in itself does not directly result in necessary legal protection at national level but requires additional national legislative protection which may not always occur.

<sup>2</sup> However, in response to the Convention, the Commission issued a 1995 Communication on the wise use and conservation of wetlands outlining its policy approaches: <https://op.europa.eu/en/publication-detail/-/publication/120f6bf7-b6d1-4c86-b127-b5895a791fa7>

There is a range of different national approaches to the protection of Ramsar Sites in the EU. Ramsar Site designations significantly overlap with the more strongly protected Natura 2000 sites although the extent of this overlap varies markedly between countries. Some Member States (such as the UK and Denmark) designate Ramsar Sites with boundaries and legal protection largely coincident with Natura 2000 sites. Others, such as France, have tended to use the Ramsar designation to provide broader, landscape scale conservation policies with strictly protected Natura sites sitting within these more extensive Ramsar Sites (Romão *et al.*, 2013).

Parties have agreed the need to undertake a strategic and systematic approach to the designation of national networks of Ramsar Sites (Ramsar Convention, 2012). Yet with the designation being an entirely national choice, it is perhaps unsurprising that many national Ramsar Site networks are limited in extent compared with the wetlands included in the Natura 2000 networks (NCE Table 5.4, Tucker 2023b). It is alleged that Ramsar Sites have also tended to include those that already have national protection, or (like many other protected area designations) are sites that are unlikely to lead to major constraints on economically important developments.

The Ramsar Convention introduced the now widely used concept of the '1% Criterion' for assessing international importance of sites by proportionate assessment of threshold waterbird numbers (Atkinson-Willes *et al.*, 1982; Stroud and Davidson, 2021). Although this was framed around discrete sites where high densities of wintering waterbirds occur in relatively small areas, the 1% Criterion is equally relevant for breeding species, albeit the sites usually cover larger geographic areas, reflecting the much more dispersed nature of many breeding waterbird populations. COP 9 extended the approach, through Criterion 9 (Table 1) to 1% of any non-avian wetland fauna that aggregate at high densities and for which both a site and biogeographical population estimate exist (Stroud, 2006; Stroud and Davidson, 2021).

#### *Boundary restrictions*

Ramsar Sites are not inviolable. Article 2.5 provides that a Contracting Party may amend a site's boundary '...because of its urgent national interests...'. Guidance has been adopted by the COP and summarised in Ramsar Convention Secretariat 2010b. Its essence is the 'avoid, mitigate and compensate' approach to development impacts (Gardner *et al.*, 2012) common in many other international instruments and similar to related approaches under the Nature Directives (European Commission, 2018). There have been a number of instances where European Ramsar Sites have had boundary restrictions which were subject to prior Ramsar Advisory Missions (below) and indeed to parallel EU jurisprudence (e.g. Leybucht Dykes (Germany, 1990) and Mühlenberger Loch (Germany, 2001)).

#### *Wise use of wetlands*

The Convention introduced the concept of 'wise use', which has been interpreted as being broadly synonymous with 'sustainable use' (Ramsar Convention Secretariat, 2010a). The wise use of wetlands was first defined at COP 3, in 1987, as 'the sustainable utilisation for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem'. It has since been updated to take into account new terminologies and thinking (e.g. in relation to the Millennium Ecosystem Assessment, 2005), such that the wise use of wetlands is now defined as 'the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development' (Ramsar Convention Secretariat, 2010a; Finlayson *et al.*, 2011). Contracting Parties commit to work towards the wise use of all the wetlands and water resources in their territory, in particular through the following implementation approaches agreed by the Parties (Ramsar Convention Secretariat, 2013):

- adopting national wetland policies, either separately or as a component of wider initiatives such as national environmental action plans;
- developing programmes covering wetland inventory, monitoring, research, training, education and public awareness; and

- developing integrated management plans at wetland sites.

Ramsar's wise use requirements have been given increasing attention by Parties in recent years. Within an EU context the concept has been influential, stimulating a Commission Communication on the issue (European Commission, 1995). However, for Ramsar's Parties in the EU, these obligations are typically given effect by the general provisions of the Water Framework Directive (WFD) and other water-related directives (NCE Section 4.3, Tucker *et al.*, 2023), as well as the Nature Directives.

#### *International co-operation*

Modes of international co-operation under Article 5 of the Convention are summarised by Ramsar Convention Secretariat (2010c). Historically this has taken many forms. Of particular significance has been the development of trans-boundary initiatives related to adjacent Ramsar Sites in neighbouring Parties. Within the Convention, this approach has been developed within Europe to a greater extent than any other region. They particularly include coastal areas such as the international Waddensea (Denmark, Germany and the Netherlands), and international riverine sites such as several along the Danube. Whilst many of these transboundary initiatives relate just to diplomatic linkages of distinct Ramsar Sites, others demonstrate deeper levels of co-operation, expressed for example, by a single shared management planning objective and process.

#### *Assisting implementation*

The Convention has several mechanisms to assist Parties implement their obligations, typically regarding Ramsar Site management, but theoretically more widely, including:

- **Article 3.2 obligations:** requires that Parties “shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Ramsar Sites] has changed, is changing...” and to report this information to the Convention's Secretariat. The Secretariat maintains a list of sites formally so reported formally by Parties, together with sites where the public or others have raised concerns, the substance of which is being explored with the Party concerned. This list is formally reported as a standing agenda item to each COP, and the inclusion of sites listed on it can provide an important opportunity for national awareness raising by NGOs. A significant number of Ramsar Sites in the EU have been subject to past Article 3.2 reporting (Davidson *et al.*, 2019).
- **The ‘Montreux Record’** was initially intended to have a function similar to the World Heritage Convention's listing of sites under threat — helping to raise the profile of Ramsar Sites' subject to threat. Yet it has become to be seen more negatively as a ‘blacklist’ with many Parties unwilling to internationally publicise domestic implementation difficulties. Accordingly, there are few Sites currently on the Record and there have been few new listings. The situation has been formally recognised by the COP as unfortunate but remains unchanged.
- **Ramsar Advisory Missions** have provided international expertise to assist Parties in addressing problematic conservation issues, as described by Gardner *et al.*, (2018a,b), with Jones and Pritchard (2017) providing a detailed review of all missions to the end of December 2017. Table 2 list missions to EU Parties. An important feature of the missions is their full involvement of non-governmental stakeholders, which is especially important in countries where there may be fewer opportunities for interested Parties to engage with government decision making processes (Stroud *et al.*, 2022).

**Table 2** Ramsar Advisory Missions to European Ramsar Contracting Parties to July 2021

Party	Year	Sites covered	Site name(s)	Key technical issue(s)
Belgium	1988	1	Schorren van de Beneden Schelde	Conversion of wetlands to industrial (port) use.
Spain	1988	1	Las Tablas de Daimiel	Changed hydrological regime (aquifer over-exploitation).
Sweden	1988	1	Hornborgasjön (lake)	Changed hydrological regime (impact of drainage and consequent vegetation succession).
Greece	1988	10	All Greek Ramsar Sites	Legal and institutional framework.
UK	1989	1	Lough Neagh & Lough Beg	Possible industrial development (lignite extraction plant); pollution; potential boundary restriction to exclude large area of farmland.
Greece	1989	10	All Greek Ramsar Sites	Legal and institutional framework; shared/transboundary water systems; site-specific management challenges.
Poland	1989	1	Lake of Seven Islands Nature Reserve (Rezerwat przyrody "Jezioro Siedmiu Wysp")	Changed hydrological regime (drainage carried out by former USSR, across border upstream of Ramsar Site).
Norway	1989	1	Åkersvika Nature Reserve	Threats to site from activities outside of, but contiguous to the Ramsar Site.
Germany	1990	1	Wattenmeer, Ostfriesisches Wattenmeer & Dollart	Wetland conversion (construction of dykes causing loss of saltmarsh at Leybucht); issue of Ramsar site boundary restriction and compensatory measures; important EU legal test case.
Austria	1991	1	Donau-March-Thaya-Auen (Donau-March-Auen)	Conversion of wetlands for agriculture (drainage / ploughing wet meadows); potential impact of dam construction (proposed hydroelectric plant); potential impact of proposed Danube-Oder canal; impact of gravel extraction; impact of forest and hunting management; protection status and conservation management.
Bulgaria	1992	1	Srébarna	Change in hydrological regime (loss of regular exchange with Danube; decreasing lake level; impact of dyke construction; impact of water abstraction); change in water quality (eutrophication, sedimentation); management of predation of eggs and young of endangered waterbird (Dalmatian Pelican <i>Pelecanus crispus</i> ); impact of fishing and reed-harvesting bans on relations with local community.
Iceland	1992	1	Myvatn	Preliminary mission. Assessment of impacts of diatomite dredging on the ecology of the Lake Myvatn.
Germany	1993	1	Unterer Niederrhein	Change in hydrological regime (impacts of dyke realignment); impacts of industrial development (salt mining); conservation management (including restoration) of riverine forest.
UK	1994	1	Dee Estuary	Challenges for successful integrated management of a large, complex site with multiple ownership and crossing major administrative boundaries (country border England/Wales); impacts of: industrial activity (tipping of colliery waste); proposed industrial development (port expansion); proposed transport infrastructure development; resource use (shellfish harvesting); and recreational disturbance.
Denmark	1996	1	Ringkøbing Fjord	Change in water quality (eutrophication from inflow contamination by agrochemicals).
Italy	1998	3	Laguna di Orbetello; Palude della Diaccia Botrona; Torre Guaceto	Assessment of whether three sites should be removed from the Montreux Record.

Party	Year	Sites covered	Site name(s)	Key technical issue(s)
Spain	2000	1	Delta del Ebro	Water management in Ebro basin; functional aspects of Ebro Delta marine, coastal and terrestrial ecosystem; management of protected areas, both within the Ramsar Site and surroundings; management problems at specific sub-sites; conservation of particular bird species; other specific issues (e.g. lead shot, aquaculture development).
Czech Republic	2001	1	Šumavská rašeliniště (Šumava peatlands)	ToR focused on management response to spruce bark beetle ( <i>Ips typographus</i> ) outbreaks within the forested peatlands of the Ramsar Site but mission also considered: management and zonation of Šumava National Park; peatland restoration; transboundary cooperation with the contiguous National Park on the German side of the border.
Germany	2001	1	Mühlenberger Loch	Planned infilling and site boundary restriction (loss of 170 ha) due to economic development in Germany's 'urgent national interest' (Article 2.5) and corresponding compensation measures (Article 4.2).
Bulgaria	2001	1	Srébarna	Effectiveness of management measures implemented since 1992 mission (and subsequent interactions) to address issues of hydrological regime and water quality; potential for site removal from the Montreux Record; lack of adequate Ramsar Information Sheet.
UK	2001	1	Ouse Washes	Water management in the surrounding river basin, specifically: hydraulics, particularly in relation to control of spring/summer flooding, and water quality, particularly in relation to nutrient enrichment/eutrophication.
Spain	2002*	1	Doñana	Assessment of measures taken for management and restoration of Doñana under two major strategic programmes, one led by Spanish Government and one by Andalusian Autonomous Regional Government. Key elements included: - improving water quantity and quality (ensuring adequate allocation of water of adequate quality for healthy ecological functioning of wetland system throughout hydrographic basin) - restoring wetland habitats on formerly drained land - monitoring of ecological health - preventing recurrence of 1998 mining waste disaster (or similar event).
Ukraine	2003	1	Kyliiske Mouth [Danube Delta]	Joint mission with UNESCO MAB. Assessment of potential impacts of establishment of a navigable waterway through the Ukrainian part of the Danube Delta.
Ukraine	2005	1	Kyliiske Mouth [Danube Delta]	Joint mission with UNESCO MAB. Further assessment of potential impacts of establishment of a navigable waterway through the Ukrainian part of the Danube Delta.
Croatia	2005	1	Nature Park Kopački Rit (Kopački Rit)	Review of developments since inclusion of Site in the Montreux Record in 1993, especially post-conflict progress; bringing site management planning (elaboration and implementation) in line with approaches and methodologies set out in relevant Ramsar Handbooks, especially with regard to participatory engagement with local stakeholders; potential impact of upstream activities; transboundary cooperation with Hungary and Serbia under Article 5.
Serbia and Montenegro	2005	1	Skadarsko Jezero	Advice on standards and criteria for potential sustainable hunting on Lake Skadar in the context of waterbird declines there.
Spain	2006	1	Albufera de Valencia	Review of issues arising from decision of Regional Government of Valencia to modify zonation of protected area to permit construction of apartment blocks. These

Party	Year	Sites covered	Site name(s)	Key technical issue(s)
				included: location, extent and impacts of urban development within and around the site; consideration of legal aspects related to land-use zonation and permitted urban development; overall sustainable management of Ramsar Site, including restoration of degraded areas; and measures required to compensate for loss of wetland values (Article 4.2).
Norway	2010	1	Åkersvika	Assessment of implications of a major potential road-widening scheme on the Ramsar Site.
Spain	2010	1	S'Albufera de Mallorca	Mission triggered by a decision of Government of the Balearic Islands to approve plans for golf course construction adjacent to Ramsar Site and concerns about possible negative impacts on the site's wetland values and ecological character. Issues addressed included: review of Site boundaries and wetland values; review of relevant land-use planning framework and its application (both legal and administrative aspects); and review of impacts on Site from numerous human activities in surrounding areas, including urban development, intensive agriculture and coal-fired power generation.
Spain	2011	1	Doñana	Joint mission with WHC to review current conservation status of Doñana, focusing on factors potentially affecting its Outstanding Universal Value (re WHC) or maintenance of its ecological character (re Ramsar Convention). These included: impacts of activities by mining and energy industries in surrounding area, including construction of an oil pipeline; cumulative impacts of these and other activities outside the Ramsar/World Heritage Site boundaries; impacts of additional dredging of Lower Guadalquivir River; and status of the Doñana aquifer.
Iceland	2013	1	Myvatn	Assessment of possible effects of waste water run-off and airborne pollution from hydrogen sulphide from a planned geothermal power plant in Bjarnarflag.
Norway	2015	1	Nordre Tyrifjord Wetland System	Advice on potential impacts of transportation links including a four-lane highway for the E16 road and a high-speed 'Ringeriksbanen' rail link in a common corridor between Kroksund and Hønefoss, with three alternative routes through the Storelva delta area.
Italy	2015	1	Laguna di Venezia: Valle Averte	Joint mission with WHC to consider progress made in mitigating threats to the Outstanding Universal Value of the property (according to WHC), including its integrity and authenticity, and the progress that had been made with respect to its conservation.
Montenegro	2018	1	Skadar Lake	Joint mission with Berne Convention ('On-the-Spot-Appraisal') in relation to proposed and actual tourist and other developments (hotels, villas, spa and wellness centres, service facilities and access roads) around the lake.
Italy	2020	1	Venice and its lagoon (including Ramsar Site Laguna di Venezia: Valle Averte)	Joint follow-up mission with WHC to consider progress made since 2015.
Spain	2020	1	Doñana	Joint mission with WHC and IUCN. Follow-up to missions in 2002 and 2011 to review progress following 1998 mining waste disaster.

Source: Jones and Pritchard, 2017 and Ramsar website<sup>3</sup>. Note: \* Site name as per current Ramsar List (former site name in brackets if relevant).

<sup>3</sup> [www.ramsar.org/activity/ramsar-advisory-missions](http://www.ramsar.org/activity/ramsar-advisory-missions)

### *Conclusions – effectiveness*

In the EU many/most of the Ramsar Convention's obligations are implemented by Member States through the EU's environmental instruments. For example, with regard to water management through the WFD and Urban Waste Water Treatment Directives; sustainable use of species through the Nature Directives; maintaining environmental quality of coastal zones through the Marine Strategy Framework Directive; and assessment of environmental change through legislation relating to Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA) processes. Some have argued that given this, the Convention is perhaps of greater significance in regions lacking such richness in environmental policy. However, analysis shows that the Convention has had an important role in stimulating such legislative and policy development, especially through opportunities for inter-governmental discussion of such issues at triennial COPs and other meetings. It also plays a key role for those European states with territories overseas to which the EU *acquis* does not apply (NL and UK in particular).

### ***Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)***

The Convention on the Conservation of European Wildlife and Natural Habitats, was drawn up under the auspices of the Council of Europe, and signed in Bern on the 19 September 1979 – and hence is hereafter referred to as the Bern Convention<sup>4</sup>. The Convention became effective on the 1 June 1982 with its secretariat being provided by the Council of Europe. Currently there are 51 signatories to the Convention including five non-members of the Council of Europe and the EU who ratified its signature once all the then members of the European Community had done so.

The aims of the Convention are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several states, and to promote such co-operation. Particular emphasis is given to protecting endangered and vulnerable species, including those that are migratory, that are listed in the Appendices. Further information on the aims of the Convention and its provisions is given in a Council of Europe explanatory report (1979).

Appendix I lists over 700 plant species, many of which are endemic, that require special protection from harm. Special protection must also be given to animals listed in Appendix II. Originally this contained mostly mammals, birds, reptiles and amphibians, but the list has since been expanded to over 700 species including certain fish and invertebrates. Species on this list may not be disturbed, captured, killed or traded. Appendix III is a long list of animals, including many common mammals, and all birds, reptiles and amphibians not in Appendix II, with the exception of a few common bird species. These species are protected from unsustainable hunting or other forms of exploitation. The convention includes provisions that allow Parties to derogate from the species protection provisions for exceptional reasons.

Parties are required to:

- take measures to maintain the population of wild flora and fauna (not just those in the appendices), at a level which corresponds in particular to ecological, scientific and cultural requirements, whilst taking account of economic and recreational requirements;
- take steps to promote national policies for nature conservation, giving particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats;
- have regard to the conservation of wild flora and fauna in its planning and development policies and in its measures against pollution, and
- promote education and dissemination of information on the need to conserve species of wild flora and fauna and their habitats.

The Convention established a Standing Committee that is responsible for the application of the Convention. It has the authority to make Recommendations to the Parties, which are an important means of giving substance to the provisions of the Convention (Jones, 2012). In turn, the committee

<sup>4</sup> Based on the German spelling of the city, as used by the Council of Europe, rather than the French spelling of 'Berne'.



has established a number of expert groups to provide advice, including on the production of species action plans, codes of conduct and guidelines. Parties are required to submit biennial reports on their implementation of the Convention.

Complaints can be made to the Standing Committee for non-compliance or possible breaches of the Convention. Under such circumstances a 'case file' is opened and information requested from the relevant Contracting Party or Parties. 'On the spot appraisals' by an independent expert can be triggered where any doubts or difficulties arise regarding measures to be taken for the implementation of the Convention. Case files are discussed at meetings of the Standing Committee until resolved.

As some of the Convention's provisions for protecting species, and particularly habitats, are rather imprecisely set out, a number of important Resolutions from the Standing Committee have helped clarify requirements and set out more practical measures. Following the endorsement of the Pan-European Biological and Landscape Diversity Strategy, at the ministerial conference in Sofia in 1995, the Standing Committee adopted Resolution No. 3 in 1996 to establish an ecological network, called the Emerald Network, made up of Areas of Special Conservation Interest (ASCIs). The Network aims to contribute to securing the long term survival of the species and habitats of the Convention requiring specific protection measures. This was subsequently supported by Resolution No. 5 in 1998, on the rules governing the network. Endangered habitats that are in need of specific conservation measures were identified in Resolution No. 4 in 1996 (which adapted HD Annex I). In 1998, Resolution No. 6 identified species in need of specific habitat conservation measures.

In some ways, the Convention provides a strong basis for a legislative framework for Parties supported by the relevant species action plans, codes of conduct and guidelines, to fulfil their obligations under the Convention. Most notably, most of the provisions are mandatory and clearly worded as 'requirements', and not couched in hortatory language used by some other wildlife treaties (Lyster, 1985; Bowman *et al.*, 2011). However, its enforcement mechanisms are weak: there are no penalties and no requirement for restoration or compensation. The main incentive for compliance being the possible embarrassment for the relevant Party of having a 'case file' remain open so that no progress is reported at Standing Committee meetings. The case file system has further shortcomings according to Jones (2012). Therefore, the Convention primarily relies on persuasion, supported by consensus building, partnerships and guidelines.

One of the Bern Convention's strengths has been its work on challenging nature conservation issues, such as in relation to climate change and invasive alien species. Its expert groups, in cooperation with other biodiversity conventions, the scientific community and NGOs have produced extensive guidance and standards, including species action plans, and other recommendations to help countries improve their national policies on nature conservation (Díaz, 2010).

The Convention had a considerable impact on the drafting of the Birds and Habitats Directives in the EU. Both Directives mirror the provisions of the Convention but are underpinned by far more robust enforcement provisions and have more realistic lists of species requiring protected status. The Birds Directive was drafted in parallel with the Convention, whilst the Habitats Directive is based on a more considered implementation of the Convention's obligations. Importantly, the Habitats Directive replicated the Convention's style of mandatory language, and built upon its aims and objectives. This has included the protection of endangered natural habitat types, which is not for particular species, but for their own value. As the Bern Convention had not produced at the time a list of endangered habitats, this was developed for the Habitats Directive, as Annex I, and subsequently taken into account by the Convention under Resolution No. 4. The Habitats Directive also amends the Birds Directive so that robust protection measures are also afforded to bird sites (further discussed in NCE Section 4.2, Tucker *et al.*, 2023).

Conversely, the development of the Habitats Directive influenced the implementation of the Bern Convention. Most importantly, the Council of Europe's earlier network ideas (in 1989 Recommendation 16) were further developed such that the Emerald Network became modelled on Natura 2000. The intention was that it would be a pan-European network, extending the Natura 2000

concept to countries outside the EU. Development of the Emerald Network was then stimulated in some eastern European states by their intentions to join the EU, as ASCIs were considered to be a step towards compliance with the EU's nature legislation requirements (Jones, 2012).

It is important to note that, unlike Natura 2000 sites, the designation of an ASCI does not by itself result in legal protection. Under Recommendation 16, Parties are asked to ensure, wherever possible, that ASCIs are the subject of an appropriate regime designed to conserve the species and habitats for which they were designated. Parties have underpinned some ASCIs with domestic protected area legislation, but this is not complete.

### ***The Convention on Migratory Species and its agreements***

The Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, derived directly from a recommendation of the 1972 Stockholm Conference on the human environment, was agreed in 1979 and entered into force in 1983. It has been ratified by all Member States and the EU. The underlying principle of the CMS is that States should take concerted action to ensure appropriate conservation and management of threatened populations of shared migratory species listed on Appendix I that occur within their borders (that is when they are Range States). The Convention also provides (Article IV) for the conclusion, between Range States, of special international agreements for the protection of particular migratory species which have an unfavourable conservation status and are listed in Appendix II. In this respect, CMS acts as a framework Convention. The agreements may range from legally binding treaties (called Agreements) to less formal instruments, such as Memoranda of Understanding (MoU), and can be adapted to the requirements of particular regions.

The following CMS Agreements of significance European relevance have been concluded to date:

- Wadden Sea Seals: Agreement on the Conservation of Seals in the Wadden Sea. Three Parties: Denmark, Germany and the Netherlands. Entered into force: 1 October 1991.
- EUROBATS: Agreement on the Conservation of Populations of European Bats. Thirty-two European Parties. Entered into force: 16 January 1994.
- ASCOBANS: Agreement on the Conservation of Small Cetaceans in the Baltic, North East Atlantic, Irish and North Seas. Seventeen European Parties plus Russia. Entered into force: 29 March 1994.
- AEWA: Agreement on the Conservation of African-Eurasian Migratory Waterbirds. Thirty-five European Parties. Entered into force: 1 November 1999.
- ACCOBAMS: Agreement on the Conservation of Cetaceans of the Black Seas, Mediterranean and Contiguous Atlantic Area. Ten European Parties. Entered into force: 1 June 2001.
- ACAP: Agreement on the Conservation of Albatrosses and Petrels (primarily addresses southern oceanic species including those threatened by high seas EU fishing, but in European waters includes the globally Critically Endangered Balearic Shearwater (*Puffinus mauretanicus*)). Four European Parties. Entered into force: 1 February 2004.

Whilst such Agreements provide effective structures for 'soft' co-ordination between Parties, they are much less effective at 'hard' policy implementation on difficult conservation issues — especially when those issues involve significant politico-economic interests such as the regulation of fisheries (Stroud *et al.*, 2021a), as is apparent from the example of ASCOBANS given below.

#### ***Agreement on the Conservation of African-Eurasian Migratory Waterbirds***

The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) was developed under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Article IV, encourages Range States to conclude special international agreements for the protection of particular migratory species that have an unfavourable conservation status and are listed in CMS Appendix II.

AEWA formed over several years in the early 1990s under the sponsorship of the Netherlands (Lenten, 2006; Boere, 2010). It provides a comprehensive framework for the conservation, sustainable

use and habitat protection of migratory waterbirds over 119 Range States covering roughly a third of the planet (Adam, 2008; Lewis, 2016). The legal requirements of AEWA are in large part, in conformity to those of the Birds Directive. The implications of this is that the regulatory regime for the management of waterbirds is thus extended (as at July 2021) beyond EU Parties to a further 58 states (20 within Eurasia, and 38 in Africa). All EU Member States other than Austria and Poland are Parties, together with the EU itself. The legal case for EU accession was made on the basis of helping the Union engage internationally for the conservation of Europe's birds at the times of year when they had migrated to Africa and other regions.

However, unlike the Birds Directive, AEWA requires protection of waterbirds at the scale of biogeographical populations rather than whole species, giving it a strong focus on biological entities. Like nearly all similar MEAs, there are no strict compliance mechanisms (but see below), thus implementation of obligations is patchy as demonstrated by analysis of national reports (most recently by UNEP-WCMC 2021).

Eight Meetings of Parties (MoPs) have given a comprehensive range of guidance on diverse aspects of waterbird conservation, reflecting, within a regional context, many of the threads of concern that lead back through the development of the Ramsar Convention (Matthews, 1993) to Project Mar (Hoffman, 1964) and earlier.

Mechanisms of particular relevance to the EU have been international Single Species Action Plans (ISSAPs) for 16 species occurring in the EU (as to MOP 8, 2022), three international management plans, and mechanisms to address species conflict issues, notably the European Goose Management Platform (EGMP). The EGMP<sup>5</sup> was established in 2015 and endeavours to promote an evidence-led and strategic approach to multiple issues arising from the 'over-abundance' of many goose populations in Europe, in large part due to agricultural intensification (Stroud *et al.*, 2016, 2017). EGMP is attempting to implement Adaptive Harvest Management Approaches at international scale to goose management following the successful development on pilot approaches for the Svalbard population of Pink-footed Goose (*Anser brachyrhynchus*) (Madsen *et al.*, 2017).

AEWA adopts a responsive approach to protective listings, reviewing the conservation status of all populations listed by the Agreement at each MoP. For the EU, this is challenging given the functional inability to revise Birds Directive (BD) Annex II. Thus, at those MoPs when the list of protected populations has been revised, the EU has consistently made reservations on the requirement to provide strict protection for any species listed as quarry species on BD Annex II. Following MoP 8, a total of 13 population listings are now subject to EU reservations<sup>6</sup>. Whilst the Commission has stressed to Member States that they expect them to provide protection for the growing list of species concerned under the auspices of BD Article 7.1, it is unclear that this is occurring. The inflexibility of huntable species listed in the Birds Directive is a stark contrast to AEWA's more dynamic approach which responsively tracks population status.

At MoP 4, Parties established an innovative Implementation Review Process (IRP) that allows cases of non-implementation to be raised with the Party concerned and formal recommendations made. In Europe, IRP cases have been raised against Montenegro, Bulgaria, Iceland, UK, France, Portugal, and Germany<sup>7</sup>. The UK case, concerning the UK and Welsh government's failure to provide obligated statutory protection for a globally Critically Endangered goose population has since been successfully resolved, with legal protection in place from the 2020/21 shooting season (Stroud *et al.*, 2021a). All other cases remain open.

<sup>5</sup> <https://egmp.aewa.info/>

<sup>6</sup> In relation to Long-tailed Duck (*Clangula hyemalis*); Common Eider (*Somateria mollissima*); Velvet Scoter (*Melanitta fusca*); Red-breasted Merganser (*Mergus serrator*); Common Pochard (*Aythya ferina*); Oystercatcher (*Haematopus ostralegus*); Lapwing (*Vanellus vanellus*); Bar-tailed Godwit (*Limosa lapponica*); Black-tailed Godwit (*Limosa limosa*); Red Knot (*Calidris canutus*); Spotted Redshank (*Tringa erythropus*); Common Redshank (*Tringa totanus*) and Lesser Black-backed Gull (*Larus fuscus*).

<sup>7</sup> [www.unep-aewa.org/sites/default/files/document/aewa\\_mop8\\_20\\_irp\\_report.pdf](http://www.unep-aewa.org/sites/default/files/document/aewa_mop8_20_irp_report.pdf)

### *Agreement on the Conservation of Albatrosses and Petrels*

The circumglobal migrations of albatrosses through the world's oceans make them among the most migratory of all species, and thus of ultimate international concern in those periods when they live beyond areas of national jurisdiction (BirdLife International, 2004). The CMS Agreement on the Conservation of Albatrosses and Petrels (ACAP) began to be developed in 1991, was rapidly adopted in 2001, and entered into force in 2004 — the rapid speed of the development of this treaty reflecting the urgency of conservation concern of the declining status of these seabirds. Diplomatic leadership had been provided in Europe from France and UK (both of which have overseas territories in southern oceans supporting significant proportions of the world's breeding albatrosses and petrels), together with Australia and New Zealand to establish a mechanism to eliminate by-catch mortality from high seas longline fisheries, the impacts of which were becoming increasingly apparent by the late 1990s.

The Agreement currently has 13 Parties including UK, France, Spain and Norway, the others being southern hemisphere fishing economies and/or countries with breeding colonies of listed species. Whilst ACAP primarily addresses southern oceanic albatross and petrel species, in European waters it also includes the globally Critically Endangered Balearic Shearwater (*Puffinus mauretanicus*).

As with other CMS Agreements, ACAP is a treaty legally independent of CMS, with governance provided by a triennial MoP to which an Advisory Committee reports, with co-ordination provided by a small secretariat. The Advisory Committee (supported by multiple working groups) addresses science issues and also develops policy initiatives for consideration by the MoP. Several non-Party Range States regularly attend MoPs, including the USA for which initiatives towards ratification of ACAP are ongoing.

The primary concern of ACAP has been to reduce and eliminate mortality of albatross and petrel species as a consequence of by-catch mortality from commercial fisheries, with the focus initially on longline fishing for both pelagic tuna and demersal species such as Patagonian Toothfish (*Dissostichus eleginoides*) (Brothers, 1991; Weimerskirch *et al.*, 1997; Nel *et al.*, 2002). Subsequently, the additional mortality threat from interaction with trawl fishing gear, whether incidental by-catch in nets or collision with trawl warps, was increasingly recognised (Sullivan *et al.*, 2006; Da Rocha *et al.*, 2021). ACAP also seeks to address threats to albatrosses and petrels on their breeding sites, notably from introduced predators.

ACAP has been an effective mechanism to share international knowledge concerning the most effective means to reduce seabird by-catch by disseminating guidelines on best practice mitigation, onboard observer programmes and data collection, piloting these techniques in focal fisheries, and then working through RFMOs (especially those related to southern hemisphere tuna fisheries) to change international fisheries standards. Focussed work to promote best standards with some fisheries has significantly reduced levels of by-catch (Da Rocha *et al.*, 2021).

From a European perspective, ACAP gave early confidence to strive for a more coherent EU response to by-catch, leading to the adoption of the comprehensive 2019 EU Regulation on the conservation of fisheries resources and the protection of marine ecosystems, which includes the need for specific mitigation measures to reduce incidental catches of sensitive species including seabirds. These Regulations include the need to use — in sensitive areas — bird scaring lines, weighted lines and/or setting longlines at night. Governments are also required to collect scientific data on incidental catches of sensitive species, as it is important to monitor the effectiveness of the measures and compliance with them. Additionally, through the Advisory Committee, ACAP has provided a mechanism to collate current knowledge of the status and trends of its 31 listed species.

However, despite its actions and some significant regional reductions in mortality of albatrosses and petrels, in 2019 ACAP's Advisory Committee declared that a conservation crisis continues to be faced by its listed species, with thousands of albatrosses, petrels and shearwaters still dying every year as a result of fisheries operations. Noticeably absent from the Parties are the large south-east Asian fishing economies of China, Japan, South Korea and the Philippines, whilst resolving the issue of by-catch from illegal, unreported and unregulated (IUU) fishing remains hugely challenging (Agnew *et al.*, 2009).

### *Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas*

Migratory cetacea were an early focus of attention under CMS with diplomatic discussions in the late 1980s concerning the desirability of an Agreement covering small dolphins and whales in the waters of north-western Europe. ASCOBANS was concluded in 1991, initially as the 'Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas' and entered into force in 1994. However, in February 2008, an extension of the agreement area came into force that changed the formal name to the 'Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas'. The Agreement now extends from the southern waters of Portugal to the northernmost extent of the Gulf of Bothnia, whilst including the Atlantic west of Ireland and UK extending to the mid-line between the Shetland and Faroe Islands. ASCOBANS has fifteen EU Parties (including the EU itself) together with Norway, UK and Russia.

The taxonomic scope of the agreement includes all small cetaceans found within the Agreement area, with 'small cetaceans' defined as any species, subspecies or population of toothed whales Odontoceti, except the Sperm Whale (*Physeter macrocephalus*). The most common small whales in the Agreement are Common Dolphin (*Delphinus delphis*), Striped Dolphin (*Stenella coeruleoalba*), Bottlenose Dolphin (*Tursiops truncatus*), White-beaked Dolphin (*Lagenorhynchus albirostris*), Atlantic White-sided Dolphin (*Lagenorhynchus acutus*), Risso's Dolphin (*Grampus griseus*), Long-finned Pilot Whale (*Globicephala melas*), and Killer Whale (*Orcinus orca*). Other small odontocetes present include several beaked-whales: Northern Bottlenose Whale (*Hyperoodon ampullatus*), Sowerby's Beaked Whale (*Mesoplodon bidens*) and Cuvier's Beaked Whale (*Ziphius cavirostris*).

As for other Agreements, governance is provided by a MoP, meeting every four years (triennially prior to MoP 8 in 2016) to review implementation and set priorities, supported by annual meetings of a technical Advisory Committee and co-ordination by a Secretariat (co-located with the CMS Secretariat in Bonn).

As is typical of other Agreements, technical work is progressed by working groups of the Advisory Committee. These address a wide range of implementation needs including:

- By-catch (mitigation measures and their effectiveness; review of information on illegal, unreported, and unregulated fishing).
- A Common Dolphin Group (the Steering Group for the ASCOBANS Species Action Plan for the North-East Atlantic Common Dolphin).
- A North Sea Group (the Steering Group for the ASCOBANS Conservation Plan for Harbour Porpoises in the North Sea).
- Marine Strategy Framework Directive Working Group (jointly with ACCOBAMS to provide co-ordination with MSFD implementation issues).
- Pollution (to collate most recent information on the status of marine pollution).
- Resource depletion (to review new information on resource depletion and its impacts on small cetacean populations and make recommendations for action to Parties and others).

ASCOBANS has been highly effective in providing an international focus (at a variety of scales) for small cetacean conservation — both in terms of raising awareness and also in promoting policy initiatives in relation to issues such as by-catch — well known as a conservation problem for over three decades (Kaschner, 2003).

However, as for albatrosses (see ACAP above), performance to address by-catch remains limited (Dolman *et al.*, 2021), with Rogan *et al.* (2021) noting that 'despite protection for these protected species under its Habitats Directive, the European Union (EU) has failed to adequately assess and, where necessary, mitigate the by-catch of small cetaceans. Management authority is diffuse, and the EU has no over-arching, quantitative conservation objectives.' Further, they noted that 'even when conservation measures have been implemented in Europe, they have been largely ineffective. More than 15 years ago, EU Regulation 812/2004 laid out two approaches to address the by-catch of cetaceans in fisheries: a requirement to use acoustic deterrent devices in certain gill net fisheries, but only on vessels of 12 m in length or greater; and a requirement for independent observers to monitor

by-catch in other fisheries, but only on vessels longer than 15 m. These same measures are retained in EU Regulation 1241/2019, ... which superseded Regulation 812/2004. The approaches are insufficient, however, because the vast majority (94%) of European gillnet vessels are smaller than 12 m.'

*Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area*

The fundamental objectives of ACCOBAMS and organisational structures are similar to those of ASCOBANS, but cover the enclosed Mediterranean and Black Seas, and the contiguous Atlantic area west of the Straits of Gibraltar (overlapping with the ASCOBANS Agreement area). ACCOBAMS was signed in 1996 and entered in force on 1 June 2001. The Agreement has 29 Parties of which 18 are European (including the EU); other Parties being North African and Middle Eastern. The secretariat is based in Monaco.

As for ASCOBANS, most of the threats to small cetacea in the Agreement area derive from interactions with human activities and practices. These include the impacts of pollution (chemical, noise and marine debris), navigation (risk of vessel collisions), fishing activities (incidental by-catch and reduction of food resources) and of tourism (disturbance). Climate change is resulting in further interacting stresses on their marine environment.

The principal obligations of ACCOBAMS Parties relate to:

- The need to implement legislation prohibiting intentional catch, reducing incidental catch in fishing nets, submitting to impact assessment activities that may affect cetaceans, and strengthening actions against pollution.
- The assessment and management of interactions between human activities and cetaceans.
- Habitat protection in particular by establishing Specially Protected Areas within critical habitats for cetacean feeding or reproduction.
- Undertaking and promoting research and monitoring to support to conservation measures and to enhance their efficiency.
- Capacity building in support of the Agreement's implementation.
- Disseminating information and promoting training and education programmes for the general public and relevant professional sectors.
- Preparations for appropriate emergency situation responses for the rescue of wounded, sick or stranded animals or for scientific sampling from dead ones.

*Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia*

The need for an international treaty related to migratory birds of prey was early identified by Boere (1991) in his review of the potential need for Agreements under CMS. In 2005, a UK government funded review by Goriup and Tucker (2005) found that more than half of migratory raptor populations in the African-Eurasian region were in poor conservation status, with many species showing rapid or long-term declines. Those findings were presented to CMS COP 8 resulting in Recommendation 8.12 on *Improving the Conservation Status of Raptors and Owls in the African Eurasian Region* which urged the development of a CMS instrument on the conservation of African-Eurasian migratory birds of prey. The United Arab Emirates (UAE) and UK subsequently led a joint initiative to develop the MoU which was concluded after negotiating meetings in Scotland (2007) and UAE (2008), coming into legal effect on 1 November 2008.

In contrast to Agreements, CMS MoUs include provision for institutions to formally align their support and accordingly the Raptors MoU has five 'co-operating partners', namely the CMS Secretariat; BirdLife International; International Association for Falconry and Conservation of Birds of Prey; IUCN's Vulture Specialist Group; and The Peregrine Fund. The MoU has 65 signatories of which 22 (and the EU) are European, with a good spread of African and Middle Eastern states. Coordination is provided by a small co-ordinating unit based in UAE.

The MOU currently covers 93 species of birds of prey and owls, which occur in 131 Range States in Africa, Europe and extending across the whole of Eurasia. Signatories to the Raptors MOU commit to adopting and implementing measures to conserve migratory birds of prey and their habitats by:

- providing a legal framework to protect migratory species and a network of habitats and sites along their flyways;
- identifying important habitats, congregation sites and favoured routes;
- supporting relevant research and monitoring of populations, sharing results internationally; and
- developing cooperative international projects and initiatives to promote effective conservation efforts.

The objectives of the MoU's Action Plan are to ensure that all populations of African-Eurasian migratory birds of prey (including owls) are maintained in, or returned to, favourable conservation status with the following key objectives:

1. To halt and reverse the population declines of globally threatened (Critically Endangered, Endangered and Vulnerable) and near threatened birds of prey and to alleviate threats to them such that they are no longer globally threatened or near threatened.
2. To halt and reverse the population declines of other birds of prey with an unfavourable conservation status within Africa and Eurasia and alleviate threats in order to return their populations to favourable conservation status.
3. To anticipate, reduce and avoid potential and new threats to all bird of prey species, especially to prevent the populations of any species undergoing long-term decline.

Early work under the MoU has focussed on vultures, through the development of a 'Multi-species Action Plan to conserve African-Eurasian Vultures' (Botha *et al.* 2017) adopted by CMS COP 12 in 2017 and which provides a comprehensive international framework for the conservation of this highly threatened group.

### ***Marine conventions and the North Sea ministerial conferences***

#### ***The United Nations Convention on the Law of the Sea***

The UN Convention on the Law of the Sea (UNCLOS), commonly referred to as the 'Law of the Sea Convention' or 'Law of the Sea treaty', was signed on 10 December 1982 and entered into force in November 1994. The Convention, which currently has over 160 Contracting Parties including the UK, all EU Member States and the EU itself, defines the rights and responsibilities of Parties regarding their use of the world's oceans, and establishes guidelines for business operations and the environment, and the management of marine natural resources. Key among UNCLOS provisions are the definition of the limits of sea areas (notably internal waters, territorial waters, Exclusive Economic Zones (EEZs), continental shelf) from the baseline of national coasts and the jurisdictional rights of coastal states and others in relation to those. Other provisions address deep seabed mining, the exploitation regime, protection of the marine environment, scientific research, and dispute settlement.

In Articles 61 and 119 addressing, respectively, EEZs and the high seas, UNCLOS explicitly acknowledges the interaction between fisheries and the wider marine environment. In these, Parties are required to establish fisheries conservation measures that produce maximum sustainable yield, taking into account environmental factors and the sustainability of species associated with or dependent upon the harvested species. Part XII sets out provisions obliging Parties to collaborate in the protection and preservation of the marine environment, including a requirement to take measures 'necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life'.

Under the Convention, flag states are also required to ensure that vessels under their jurisdiction comply with international environmental regulations, including for shipping under the International Maritime Organisation (IMO), of which the International Convention for the Prevention of Pollution from Ships (MARPOL) is a regional example of implementation. Apart from the IMO, organisations

such as the International Whaling Commission (IWC) and the International Seabed Authority (ISA) are key to the effective implementation of UNCLOS.

Within the legal framework established by UNCLOS, important international fisheries instruments were subsequently introduced, notably the FAO Code of Conduct for Responsible Fisheries ('the Code of Conduct', a voluntary instrument) in 1995, and the UN Agreement on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks ('the UN Fish Stocks Agreement' or FSA) in 2001. The FSA, which is binding on signatories, has been ratified by both the EU *en bloc* and its individual Member States. The FSA includes the important provision that catch of so-called 'non-target species' (commonly known as by-catch) is to be minimised through the development and use of selective and environmentally safe fishing gear and techniques. This has been important in holding states to account over measures necessary to mitigate the mortality of seabirds, cetaceans and other marine wildlife in fishing gears. Enhanced monitoring of species status and the efficacy of conservation measures are also required by the FSA where there is cause for concern (Churchill and Owen, 2010, which see for further elaboration of international instruments). Such provisions under the FSA and also the Code of Conduct have, in turn, influenced and been reflected in the environmental protection measures under the North-East Atlantic Fisheries Commission (NEAFC) Convention and the EU Common Fisheries Policy (CFP).

In Europe, there are the following four **Regional Sea Conventions** (RSCs), which aim to coordinate countries in the environmental protection of their shared marine waters:

- The 1992 Convention for the Protection of the Marine Environment in the North-East Atlantic (the OSPAR Convention) – see details below.
- The 1992 Convention on the Protection of the Marine Environment in the Baltic Sea Area (Helsinki Convention), which updates the earlier version of 1974. It entered into force in 2000, and is governed by HELCOM (i.e. the Baltic Marine Environment Protection Commission), an intergovernmental organisation of the nine Baltic Sea coastal states<sup>8</sup> and the EU.
- The 1992 Convention for the Protection of the Black Sea (the Bucharest Convention). It entered into force in 1994, and all six Black Sea coastal states<sup>9</sup> are Parties to the Convention. The EU has also expressed a wish to become a Party but the Convention will first need to be revised to allow the accession of such Regional Economic Integration Organisations. Implementation of the Convention is managed by the Commission for the Protection of the Black Sea Against Pollution (also sometimes referred to as the Istanbul Commission).
- The 1995 Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean (the Barcelona Convention), which entered into force in 2004. It updates and broadens the earlier 1976 Convention for Protection of the Mediterranean Sea against Pollution. The current Convention has 22 Contracting Parties, 16 of which are EU Member States<sup>10</sup> and implements the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean, which replaces the Mediterranean Action Plan that was developed under the UNEP Regional Seas Programme and approved in 1975.

Given its pioneering role in regional seas protection, its exclusively European coverage, and its strong linkage with the Helsinki and Barcelona Conventions and other I, a detailed account is given below of the OSPAR Convention. Skjærseth (2006) has analysed the functional relationship and synergy between, respectively, OSPAR, the EU and the international North Sea Ministerial Conferences (see below). For further and broader analysis of marine governance structures, processes and challenges in European seas, including the evolving role of Regional Seas Conventions, see Gilek and Kern (2015).

<sup>8</sup> Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

<sup>9</sup> Russia, Turkey, Ukraine, Georgia, Bulgaria and Romania.

<sup>10</sup> Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, the European Community, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey.



### *The Convention for the Protection of the Marine Environment of the North East Atlantic*

The Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention) is the forum by which fifteen European governments and the EU cooperate to protect the marine environment of the North-East Atlantic by identifying threats and organising programmes and measures to ensure effective national action to tackle them. The North-East Atlantic maritime area is extensive, consisting of five regions: Arctic Waters (Region I), Greater North Sea (II), Celtic Seas (III), Bay of Biscay and Iberian Coast (IV) and Wider Atlantic (V). The latter lies to the west of Regions III and IV and covers the deep waters, abyssal plain and Mid-Atlantic Ridge, a region in which the only settled human population is the Azores.

OSPAR derives its name from a conflation of 'Oslo' and 'Paris', representing the Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (adopted 1972), and the Paris Convention for the Prevention of Marine Pollution from Land-Based Sources (adopted 1974). In 1992, these two conventions were unified, updated and extended to create and adopt the OSPAR Convention.

In 1998 (also the UN International Year of the Ocean) OSPAR's scope was widened at the Ministerial Meeting in Sintra (Portugal) to cover non-polluting human activities that can adversely affect the sea by the addition of an Annex on the protection of biodiversity and ecosystems. The OSPAR Commission thus adopted strategies in 1998 and 1999 to direct its future work and regulate European standards in the following five areas:

- protection and conservation of ecosystems and biological diversity
- hazardous substances
- radioactive substances
- eutrophication
- Environmental Goals and Management Mechanisms for Offshore Activities.

Regarding OSPAR's remit, it is worth noting that it has no mandate for fisheries measures and management, for which the competence lies elsewhere, although the Convention does have a responsibility to assess the impacts of fisheries on the marine ecosystem (e.g. OSPAR maps the intensity of bottom fishing in the maritime area, inputting to both the assessment of seafloor integrity and physical damage).

In addressing each of the five work areas listed above, OSPAR has pioneered ways of monitoring and assessing the environmental status of its maritime area by setting internationally agreed goals and objectives, the Contracting Parties then agreeing commitments to deliver against these. The OSPAR Commission supported by a secretariat ensures this collective action with the assistance of EU institutions, inter-governmental organisations, such as ASCOBANS and ICES (International Council for the Exploration of the Sea), representatives of trade and industry observer organisations, and environmental NGOs. The Sintra ministerial meeting in 1998 (see below) opened OSPAR committees and working groups to NGO participation as observers.

OSPAR is also key to facilitating cooperation in other regional and international commitments, notably the EU Marine Strategy Framework Directive (MSFD) (see NCE Section 4.3.5, Tucker *et al.*, 2023). OSPAR agreed policies are underpinned by sound science, systematic monitoring and accurate assessment, and every OSPAR measure is accompanied by implementation reporting and assessment procedures.

In evaluating the achievements of OSPAR, the Convention has since its inception:

- Banned dumping and incineration of wastes at sea.
- Significantly reduced land-based inputs of hazardous substances and nutrients.
- Ensured that discharges from nuclear power plants are the lowest recorded.
- Regulated key aspects of the offshore oil and gas industry, e.g. decommissioning.
- Developed Ecological Quality Objectives (EcoQOs) for a healthy ocean.
- Comprehensively evaluated the health of the North-East Atlantic in Quality Status Reports (QSRs), which assess the environmental status of the maritime area by summarising

contemporary knowledge on trends in pressures and impacts and demonstrate progress towards ecosystem assessment.

The development of the OSPAR System of EcoQOs for the (Greater) North Sea<sup>11</sup> was a milestone in taking the pulse of progress towards delivering an ecosystem approach. The system provides a clear set of objectives and targets for the quality of different ecosystem components in response to a range of human pressures. Following the testing and evaluation by North Sea countries of a first set of nine EcoQOs (covering marine mammals, seabirds, fish communities, seafloor habitats, pelagic habitats, non-indigenous species and food webs) between 2002 and 2009, an updated summary report was prepared for the QSR 2010. The EcoQOs and associated advice from OSPAR are central to assessing requirements to assess good environmental status under the MSFD's 11 quality descriptors. Since the QSR 2010, 18 indicators have been developed to assess the state of biological diversity across the whole OSPAR Maritime Area. While some of these build on OSPAR's experience in developing EcoQOs for the North Sea, many were defined and developed thereafter and were assessed for the first time in the Intermediate Assessment 2017<sup>12</sup>.

The origin of Quality Status Reports lies in the assessments done for the North Sea following the London North Sea Ministerial Conference in 1987 (see North Sea Ministerial Conferences, below). OSPAR QSRs for the North-East Atlantic were published in 2000, 2010 and in the Intermediate Assessment 2017<sup>13</sup>. Notable in the latter was the declining population status of seabirds, especially those surface-feeders on small, low trophic level fish species. The scale of decline was found to increase with latitude, possibly linked with climate change (notably sea warming) as well as commercial fisheries. The 2017 assessment also highlighted the growing problem of marine litter, especially plastic, albeit finding no significant decrease – as measured by plastic levels in the stomachs of the Fulmar (*Fulmarus glacialis*) – since QSR 2010. The next full QSR is due in 2023 and may be used by Contracting Parties that are also EU Member States to support their reporting obligations under the MSFD.

The Sintra ministerial meeting (1998) was a step change for OSPAR on several fronts, not least the commitment to 'promote the establishment of a network of marine protected areas [MPAs] to ensure the sustainable use and protection and conservation of marine biological diversity and its ecosystems'. The ministers went further in agreeing to 'restore, where practicable', marine areas which had been adversely affected by human activity. The ministers also invited the OSPAR Commission to draw up criteria and guidance for selecting a priority list of 'Threatened and/or Declining Species and Habitats'. This led to the development of action plans for these, Parties being currently required to report on implementation every six years.

After Sintra, the 2003 OSPAR Ministerial Meeting in Bremen adopted a recommendation for the establishment of an OSPAR Network of MPAs in the North-East Atlantic that would be 'ecologically coherent' by 2012 and 'well managed' by 2016. The network is made up of areas protected under Natura 2000, domestic sites and Areas Beyond National Jurisdiction (ABNJs), with pressure for designations in EU waters also arising from compliance with the MSFD. According to the latest available compiled data, in October 2021, the network comprised 583 MPAs with a total surface area of 1 490 552 km<sup>2</sup> covering 11.0% of the OSPAR Maritime Area<sup>14</sup>. The majority of designated OSPAR MPAs are located in territorial waters, with an overall coverage of 20.9%, far less area (2.9%) in EEZs, while the OSPAR Maritime Area beyond the limits of national EEZs holds 11 OSPAR MPAs, covering 19.9% of this area.

Against the Madrid Criteria for the OSPAR MPA Network, whilst significant progress had been made, the network is not yet considered ecologically coherent. Substantial gaps in coverage remain, in particular in Arctic Waters. Future work will also focus on implementing the management measures

<sup>11</sup> [https://qsr2010.ospar.org/media/assessments/EcoQO/EcoQO\\_P01-16\\_complete.pdf](https://qsr2010.ospar.org/media/assessments/EcoQO/EcoQO_P01-16_complete.pdf)

<sup>12</sup> <https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/introduction/what-assessed/>

<sup>13</sup> <https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/key-messages-and-highlights/>

<sup>14</sup> <https://oap.ospar.org/en/ospar-assessments/committee-assessments/biodiversity-committee/status-ospar-network-marine-protected-areas/assessment-sheets-mpa/mpa-status-2021/>

considered necessary to achieve the conservation objectives of the protected features of the MPAs, along with ensuring the long-term monitoring needed to evaluate the effectiveness of management (OSPAR Commission, 2019)<sup>15</sup>. Ultimately, however, the responsibility for effective conservation measures under the OSPAR MPA model ultimately remains with the commitment of individual Parties to set stricter standards and agree on their enforcement (Matz-Lück and Fuchs, 2014).

In recent years, the impact of the climate emergency on marine ecosystems has been an increasing focus of OSPAR. The Joint OSPAR/ICES Study Group on Ocean Acidification was formed to address the eight specific Terms of Reference provided by OSPAR and adopted as a resolution by the ICES 2012 Annual Science Conference and Statutory Meeting. Building marine climate and climate change into the OSPAR assessment process has begun and needs to make more progress in order to be able to describe the state of the maritime area, why it has changed, how it might change in the future and what impacts this may have.

OSPAR work priorities from 2018 to 2030<sup>16</sup>, set out in a new North-East Atlantic Environment Strategy (NEAES) launched in 2020, will reflect and be proactively aligned with the ambitious international agenda on ocean governance, particularly the 2030 Agenda for Sustainable Development and SDG 14 ('Conserve and sustainably use the oceans, seas and marine resources for sustainable development'). In so doing OSPAR will continue to collaborate with and support relevant international organisations such as IMO, NEAFC, ICES and the Arctic Council, as well as promoting regional coordination in the second and third cycles of the MSFD.

In the MSFD, as in other areas of work, from the outset OSPAR has collaborated with other Regional Seas Conventions, notably the Helsinki Convention on the protection of the Baltic Sea, and the Barcelona Convention for the protection of the Mediterranean Sea and coast. OSPAR's engagement with these neighbouring RSCs recognises the connectivity of the marine environment and the need to have coherent strategies and action plans. The rationale behind the growing need to develop and improve ways of working together was set out in the 'Declaration of the First Joint Ministerial Meeting of the Helsinki and OSPAR Commissions' (Bremen, 25-26 June 2003)<sup>17</sup>, namely 'the enlargement of the European Union; the increasing interdependence of the marine environments of different countries; the ever-growing public interest in, and concern for the seas; the European Union initiative to develop a strategy [European Marine Strategy] to conserve and protect the marine environment'.

Stressing the desire for joint action to protect threatened and declining species and habitats, the ministers importantly pledged to create by 2010 an ecologically coherent network of well managed marine protected areas covering (together with the Natura 2000 Network) the North-East Atlantic and the Baltic Sea – an aspiration which is still a work in progress, not least the 'well managed' part. Much of this shared endeavour happens in issue-led working groups, which may also involve other organisations as appropriate; for example, the Joint OSPAR/HELCOM/ICES Expert Group on Seabirds is composed of experts with an interest in seabirds and the implementation of the MSFD.

The HELCOM analogue of the OSPAR Strategies is the Baltic Sea Action Plan, an ambitious programme to restore the 'good ecological status' of the Baltic marine environment by 2021, adopted on 15 November 2007 in Krakow (Poland). While these two Regional Sea Convention approaches are largely aligned (likewise with the European Marine Strategy), there are differences as befits differing ecologies, human activities and threats. In 2006<sup>18</sup>, the then OSPAR chair, Bob Decker, pointed out: 'What is appropriate in OSPAR – even with the differences between our regions – will often not be sensible for HELCOM and *vice versa*'. For example, OSPAR has a long tradition of working on impacts of the offshore oil and gas industry and radioactivity, neither of which are highlighted in the Baltic Sea Action Plan.

<sup>15</sup> For summary, see: [www.ospar.org/site/assets/files/40996/assessment\\_sheet\\_mpa\\_status\\_2018.pdf](http://www.ospar.org/site/assets/files/40996/assessment_sheet_mpa_status_2018.pdf)

<sup>16</sup> [www.ospar.org/site/assets/files/1202/ospar\\_secretariat\\_priorities\\_2018-2020.pdf](http://www.ospar.org/site/assets/files/1202/ospar_secretariat_priorities_2018-2020.pdf)

<sup>17</sup> <https://helcom.fi/wp-content/uploads/2019/10/First-Joint-Ministerial-Meeting-of-the-Helsinki-and-OSPAR-Commissions.pdf>

<sup>18</sup> [http://archive.iwlearn.net/helcom.fi/BSAP/kickoff/en\\_GB/Bob\\_Dekker OSPAR\\_presentation/index.html](http://archive.iwlearn.net/helcom.fi/BSAP/kickoff/en_GB/Bob_Dekker OSPAR_presentation/index.html)

### *North Sea Ministerial Conferences*

The International Conference on the Protection of the North Sea (1984-2006) or 'North Sea Conference' (NSC), played a pivotal, ground-breaking role in giving political impetus to the competent international bodies (with the technical support of OSPAR and ICES in particular) to address the multiple impacts of human activity on the North Sea environment, including land-based inputs. The NSC states included Norway as well as EU coastal states, namely Belgium, Denmark, France, Germany, the Netherlands, Sweden and the UK. Switzerland also participated as the source country of the Rhine, a major riverine input to the North Sea.

Each NSC began, under the chairmanship of a host country secretariat, with collation and assessment of evidence, discussion and drafting of declaration text at a series of working meetings attended by civil servants and stakeholders including NGOs. Indeed, the NSC process was a huge stimulus to the NGOs and collaboration between them, leading notably to the establishment in 1985 of Seas At Risk, a coalition of European NGOs (Earll, 2019). The preparatory work for each NSC culminated in environment ministers negotiating and adopting the declaration at the concluding conference. While not legally binding, these declarations were strong and comprehensive commitments of political intent and, as such, were key to framing and shaping national and international maritime policy and regulation for the North Sea region.

The first NSC held in Bremen in 1984 arose specifically from concern among North Sea states about the potentially irreversible damage from inputs of hazardous substances via rivers, direct discharges and dumping of waste at sea. Dissatisfaction among states over insufficient progress by competent international organisations, especially OSPAR and the London Dumping Convention 1972 (Earll, 2019), to protect the marine environment was also a catalyst for the Bremen initiative, as was the washing ashore of oiled seabirds in the German Bight in winter 1983. Bremen was followed by five more NSCs: London 1987, The Hague 1990, Esbjerg 1995, Bergen 2002 and, finally, Göteborg 2006, interspersed with two important 'Intermediate Ministerial Meetings' at Copenhagen in 1993 (IMM-93) and Bergen in 1997 (IMM-97), respectively.

For the London 1987 meeting, an assessment of the state of health of the North Sea was produced as a Quality Status Report. However, the evaluation was considered unsatisfactory, drawing as it did on piecemeal and variable information provided by the states. In recognition of this deficiency, the ministerial declaration recommended a scientific 'Task Force' be established under the auspices of the International Council for the Exploration of the Sea (ICES) and the Oslo and Paris Commissions (OSPARCOM) to organise a coordinated programme of research and monitoring on the North Sea (Reid, 1990; see also OSPAR Convention, above).

The issues dominating each NSC reflected the changing pressures and perceived priorities over time. From the outset, reduction of pollution featured strongly (London, The Hague, IMM-93, Esbjerg 1995, Bergen 2002), with prevention of pollution from shipping and offshore installations featuring also in the Bergen and Gothenburg declarations. At Esbjerg (1995), ministers committed to deliver, manage and monitor the emerging marine Natura 2000 network.

Following the North Sea Quality Status Report 1993 (North Sea Task Force, 1993) the focus shifted more to commercial fisheries as concern grew over fish stock depletion and the negative impacts of fishing on the wider marine environment. In this context, there was increasing emphasis on actions for the protection and, where necessary, the restoration of species and habitats in coastal and offshore waters from the impacts of fisheries and other human activities. The Bergen ministerial declaration reflected increasing attention on the promotion of offshore renewable energy, marine spatial planning, and reduction of marine litter. At the final NSC in Göteborg, ministers recognised the growing importance of aquaculture and agreed measures to mitigate its impacts on marine ecosystems.

The following achievements of the NSCs draw on reviews of NSC history and process by Ehlers (1990), Skjærseth (2006) and the progress reports by, respectively, the Ministry of the Environment and Energy, Denmark (1995) and Ministry of the Environment, Norway (2002). Notable benchmarks in international policy development pioneered by the NSCs include the adoption of the *precautionary*

*principle* at the London conference. The precautionary principle was subsequently taken up in other fora and legislation, notably OSPAR and the CFP, but also exerted influence far beyond the North Sea, becoming a generally accepted basic principle for the protection of the environment on a par with the 'polluter pays' principle adopted at the 1972 Stockholm Conference on the human environment.

The commitment to take measures, based on the precautionary principle, to reduce drastically land-based inputs of hazardous substances was one of the most far-reaching decisions taken in the framework of the NSCs. Following the conference at The Hague, North Sea states and the international community exerted greater control over pollution from ships within the framework of the MARPOL 73/78 Convention. The Hague NSC (1990) led to the UK (up till then branded as 'the dirty man of Europe') ending the practice of dumping industrial waste and sewage sludge at sea (Earll, 2019). The Esbjerg meeting (1995) coincided with Shell's decision to tow the decommissioned Brent Spar oil storage buoy through the North Sea for dumping in the Atlantic (Owen and Rice, 1999) and, assisted by intense campaigning by Greenpeace, such dumping was subsequently outlawed.

Another milestone was the agreement at IMM-97 on 'Integration of Fisheries and Environmental Issues' to develop and apply an *ecosystem-based approach* to fisheries management. Thereafter ministers at Bergen in 2002 developed a conceptual framework for an ecosystem approach and committed to its implementation. IMM-97 was ground-breaking in bringing together both fisheries and environment ministers to make a joint Statement of Conclusions. Actions they agreed were, among other things, to lead to tighter management of sandeel (*Ammodytes* species) fisheries for the protection of seabirds and the wider North Sea ecosystem. Moreover, the commitment at IMM-97 to investigate the effects and practicability of halting the practice of vessels discarding fish, and the follow-up actions agreed in Gothenburg in 2006, would lead sixteen years later to a discard ban in EU waters under the CFP.

However, not all ministerial commitments resulted in concrete action. Notable in this regard was the request at Esbjerg 1995, reaffirmed at the IMM-97, to the competent authorities to facilitate research on the possible effects of 'undisturbed areas' as a tool for evaluating the use of protected areas. This option was never elaborated as no such reference areas have ever been established in the North Sea.

By the time of the 2002 Bergen conference, the NSCs had 'solved' most of the North Sea's problems related to hazardous substances, nutrients, dumping and incineration at sea. As a measure of progress on hazardous substances, by the time of the Bergen NSC most North Sea states had achieved a 70% reduction of mercury, lead and cadmium. However, Bergen flagged a number of new issues such as climate change, biodiversity, renewable energy and, as noted above, an integrated ecosystem approach (Skjærseth, 2006).

At Bergen, ministers also acknowledged that substantial parts of the North Sea process could be continued efficiently in other fora, notably OSPAR and the EU. OSPAR was invited to follow up a substantial part of the NSC process except the two issues of sustainable shipping and fisheries, for which legal competence lies in the IMO and EU, respectively. This transfer of responsibility was formalised by the 6<sup>th</sup> and final NSC in Gothenburg in 2006, where ministers effectively discontinued the NSC forum and invited OSPAR, in cooperation with the EU, to follow up periodically the various decisions in the NSC process with a view to holding declaration commitments to account. Skjærseth (2006) emphasises the synergy between the NSCs, OSPAR and the EU, concluding that the 'soft law' NSC declarations profoundly influenced and energised OSPAR and the EU, accelerating the decision-making process and ultimately facilitating domestic implementation.

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