

Draft Guidelines for Cetacean-sensitive Maritime Spatial Planning for the ASCOBANS Area

Dr Cormac Walsh

cormacwalsh-consult.eu

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Introduction: Key Terms

- ▶ **Maritime spatial planning (MSP):** an integrative policy instrument concerned with the **coordination and management** of human activities at sea, with the aim of facilitating the sustainable development of ocean resources and the protection of the marine environment.
- ▶ **Ecosystem-based MSP:** founded on the principle that **all human activities at sea** must be carried out in such a way that does not risk the **integrity, resilience and health of marine ecosystems** and is aligned with **internationally agreed conservation objectives**



Introduction: Cetacean-Sensitive MSP

- ▶ Maritime Spatial Planning that is aligned with the **conservation and restoration of small cetaceans** in accordance with ASCOBANS
- ▶ Aligned with achievement of **favourable conservation status**
- ▶ Supported by **Kunming-Montreal Global Biodiversity Framework**, EU commitment to ecosystem-based MSP and **Good Environmental Status** and work of the **regional seas conventions** (OSPAR & HELCOM)

Multiple Threats

- ▶ **Contaminants**, habitat degradation, noise pollution, bycatch, prey depletion, collisions, **climate change**, etc.
- ▶ Both **chronic and acute threats** from **past, current and future** human activities
- ▶ **Day-to-day** activities and **low frequency high magnitude events**
- ▶ Substantial **variation** across both **species** and **sea basins**



MV Freemantle Highway, August 2023

Ecosystem-based MSP

- ▶ **Area-based:** managing discrete areas and connections across space
- ▶ **Ecosystem-thinking:** recognising dynamic interaction of marine ecosystem components
- ▶ **Forward-looking:** an anticipative process, not only current activities but also future activities
- ▶ **Science-driven:** all decisions are based on scientific information and evidence.
- ▶ **Transparent:** data and tools support the decision-making process, and the information from these is freely available to stakeholders.
- ▶ **Participatory and integrated:** stakeholder participation and cross-sectoral integration
- ▶ **Adaptive:** activities and plans are monitored systematically, plans are revised on receipt of new information or evidence
- ▶ **Precautionary:** follows a cautious approach in face of uncertainties and incomplete information

Draft Guidelines Structure

1. Introduction

- 1.1 Current Status and Policy Context
- 1.2 Ecosystem-based Maritime Spatial Planning and Cetacean Conservation
- 1.3 Building on Existing Good Practice

2. High-Level Recommendations (23)

3. Overview of Assessment of Cetaceans Impacts from Selected Sectoral Activities

- 3.1 Offshore Renewable Energy
- 3.2 Vessel Traffic (Shipping and Boating)
- 3.3 Fisheries and Aquaculture

4. Threats to Cetaceans and Appropriate Measures

5. Future Outlook: Towards Cetacean-Sensitive MSP

Technical Note:

Guidance on Cumulative Effects Assessment for Cetacean-Sensitive Maritime Spatial Planning

(AC 28: Information Document 8.3)

3.1 Adverse Impacts of ORE on Cetaceans

Threats	Impacts	Policy Measure
Impulsive noise impacts during OWF construction (see 4.4.1 below)	Disturbance leading to behavioural change, displacement (e.g. Benhemma-Le Gall et al. 2021).	Fine-scale spatial and temporal coordination to prevent co-occurrence of impulsive noise events. Use of BAT and BEP mitigation techniques such as double bubble curtains to reduce noise impacts. Application and rollout of alternative floating turbine foundations to avoid pile driving.
Continuous noise impacts of maintenance vessels (see 4.2.5 below)	Disturbance leading to, behavioural change, displacement (e.g. Stöber & Thomsen 2021)	Independent monitoring and continuous assessment. Restrictions on vessel and trip numbers, and vessel speeds, including seasonal restrictions as appropriate. Regulation and management of how service vessels moor offshore , ensuring that vessels minimize noise emission at all times.
Physical barrier effects due to offshore wind farms and wave devices	Potential impacts on habitat connectivity and cetacean mobility in areas of high ORE density (e.g. central North Sea) (Gussatu et al. 2021)	Rigorous assessment of cumulative effects at the sea-basin scale to ensure that barrier effects do not occur
Collision risk from tidal turbines	Overlap between high energy sites and important foraging areas for cetaceans, leading to physical injury or death; also displacement from important feeding habitat (Benjamins et al. 2015)	Independent monitoring and continuous assessment. Systems for temporary shutdowns when animals come too close.

4. Threats to Cetaceans and Appropriate MSP Measures

- ▶ Matrix of threats, geographical distribution, species and sectors (based on ICES 2019)
- ▶ Widespread: e.g. contaminants, overfishing
- ▶ relatively location specific: shipping noise, military activity
- ▶ highly location specific: e.g. pile-driving

Threats	Regional Seas					Species	Sector	Spatial Distribution
	Baltic Sea	Belt Seas / Kattegat	Greater North Sea	Celtic Seas	Bay of Biscay & Iberian Peninsula			
<i>Contaminants</i>	H	H	H	H	H	harbour porpoises, dolphins, toothed whales	Land-sea	Widespread
<i>Habitat degradation</i>	M	L	L	L	L	harbour porpoises	land-sea	Relatively location-specific
<i>Litter (including plastics and discarded fishing gear)</i>	L	L	M	M	M	harbour porpoises, dolphins, whales	Fishing	Widespread
<i>Sonar</i>	H	M	M	H	H	harbour porpoises, whales	Military	Relatively location-specific
<i>Seismic surveys</i>	H		M	H	H	harbour porpoises, dolphins, whales	Oil and gas	Relatively location-specific
<i>Pile-driving</i>	M	M	M	M	0	harbour porpoises, whales, dolphins	Offshore wind	Highly location-specific
<i>Explosions</i>	H	M	M	0	0	harbour porpoises, whales, dolphins	Military / offshore wind	Relatively location-specific
<i>Shipping</i>	M	M	M	M	M	harbour	Shipping	Relatively

High-Level Recommendations (selected – General Principles)

- I. Maritime spatial plans should include measures to ensure a **Favourable Conservation Status** (ASCOBANS 1992) for cetaceans is maintained or achieved and ensure adverse impacts are mitigated following **Best Available Techniques** (BAT) and **Best Environmental Practices** (BEP) in order to minimize the overall impact. There should be an evaluation process to ensure that BATs and BEPs effectively achieve minimal impacts.
- VI. Maritime spatial plans should make explicit recommendations **not only on where activities should and should not occur but also on when they should occur**, taking account of seasonal variations in the spatial distributions and behaviours of cetaceans (e.g. Nachtsheim et al. 2020) and the cumulative impact of the co-occurrence of multiple activities (or instances of the same activity) occurring within a short period of time. **Co-occurrence of impulsive noise events should be avoided wherever possible...**

High-Level Recommendations (selected – Cetacean Conservation and Restoration)

- VII. Maritime spatial plans should make provision for an **ecologically coherent network of extensive cetacean conservation areas**. Their locations should be informed by an assessment of the spatial distribution and abundance of individual cetacean species, encompassing both breeding and feeding grounds (e.g. Gilles et al. 2009). The **critical sites for all cetacean populations that have an unfavourable population status should be included in such zones**. The conservation objectives should be designed in such a way as to improve the conservation status of the population concerned. Cetacean conservation areas may **vary along a spectrum** from **restriction zones** with regulations specific to one maritime activity (e.g. speed limits for shipping) to **strictly protected areas**. Close cross-sectoral coordination with the relevant public authorities (e.g., ministries and/or environmental protection agencies) is necessary to ensure that conservation areas are designated as marine protected areas (MPAs).

High-Level Recommendations (selected – Information Sharing and Transboundary Cooperation)

- XX. Maritime spatial plans should take **explicit account of transboundary impacts**. The **current status of the cetacean species and regional populations** (e.g. North Sea, Belt Seas and Baltic Proper harbour porpoises) should be considered, rather than solely the spatial distribution and abundance of cetacean species within the plan area (e.g., EEZ and/or coastal waters). In line with the Espoo Convention, maritime spatial plans should consider the **impact of current and planned activities in neighbouring jurisdictions**.
- XXI. Maritime spatial plans should include **commitments to coordinated planning and monitoring efforts**. **Monitoring methodologies** should be harmonised across the ASCOBANS Area. A **regional seas approach** is recommended to ensure transboundary coordination and coherence of planning, environmental assessment and monitoring efforts.

High-Level Recommendations (selected – Information Sharing and Transboundary Cooperation)

11

XXIII. The terms of reference of the **ASCOBANS Working Group on MSP** should be extended to encompass a **coordination role** in the development of **common assessment and monitoring methodologies for cetacean-sensitive MSP** and the sharing of relevant cetacean conservation expertise. The Working Group should **liaise and collaborate**, where possible and practical, with the WGs of other relevant IGOs, such as HELCOM, ICES, OSPAR.

Future Outlook

- ▶ **Increase in economic activity across ASCOBANS area** with corresponding increased risk to cetacean populations
- ▶ **Existing pressures** compounded by **climate change impacts**
- ▶ Increased risk of **high-magnitude low-frequency events**

- ▶ Potential for **progress** through **ecosystem-based MSP** and alignment between **MSP and MPA designation and management**

- ▶ **Cetacean-sensitive MSP** as a **test case** for scientifically informed ecosystem-based MSP