



Bridging the gap between policy and knowledge
on Biodiversity in Europe

CALL FOR KNOWLEDGE FOR INITIAL SCOPING

Eclipse - CfK 01/2024

TOPIC:

What are the cumulative impacts of offshore wind farms and their consequences for the achievement of good environmental status of marine ecosystems?



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March 2024

Responses by April 12th, 2024

1. Invitation to share knowledge for informed decision-making

Eclipse invites you to contribute to this open call with your knowledge on the impacts of planned expansion of wind energy production at sea, including cumulative impacts on marine ecosystems and the achievement of good environmental status, by answering the questions below.



Background:

The aim of the request is to examine the multi-level impacts of the planned expansion of wind energy production at sea, including cumulative impacts on marine ecosystems and on the achievement of good environmental status (GES). Such analysis is critically needed considering the increase in challenging targets for renewable energy sources that need to be achieved by Member States in the coming years, a large percentage of which are likely to be offshore. Existing studies on cohabitation between offshore wind energy production and nature tend to focus, in particular, on marine protected areas (MPAs) or the protection of species (e.g. birds). Existing knowledge misses an analysis relevant to all the dimensions (descriptors) of good environmental status as per the Marine Strategy Framework Directive (MSFD). Such analysis, which includes literature reviews and scenarios modelling, should look at how offshore wind energy expansion might affect the achievement of GES, considering the GES threshold values set by Member States for a number of GES criteria (such as seabed loss, impulsive noise, contaminant levels, species abundance, etc.) and the subsequent cumulative impacts. The study should empower the Commission to propose solutions, including in the context of the Member States' MSFD Programmes of Measures and the MSFD review, to make sure that offshore wind energy expansion does not impede the achievement of GES under the MSFD, considering the entire lifecycle of offshore wind power plants (including their decommissioning), whatever the type of turbine (monopiles, floating, tripods, etc.). These solutions could, for example, relate to marine spatial planning (e.g. current developments in the context of the Greater North Sea Initiative), in particular considering the cumulative impacts of other human activities on the marine environment. Identification of other solutions (for instance technological) would also be welcome.

The planned developments of offshore wind production in order to achieve the targets set in EU and national legislation and policies are likely to be at such a large scale that they will have impacts on marine ecosystems and marine ecosystem functioning, including seabed habitat loss, disruption of migratory routes of mobile species, including birds and cetaceans, deadly collisions with birds, disruption of feeding and breeding grounds of a number of species, underwater noise during development and maintenance, input of contaminants and litter and changes to hydrographic conditions. Almost all descriptors of good environmental status are likely to be impacted by these developments.

Eclipse invites scientists, policymakers, practitioners and other societal actors to share their knowledge on the topics. The main aim of this Call for Knowledge is to gather all relevant knowledge to be considered during the Eclipse process. This is to avoid duplication of ongoing efforts and to ensure the outputs are jointly and timely developed. Please have a look at the following questions:



Do you know of any major or overlooked projects, papers, reports, grey literature that could support informing on known cumulative impacts of offshore wind energy development on marine ecosystems and existing mitigation strategies?

- a) Could you share your experiences of on-the-ground actions aiming at understanding monitoring and mitigation of short- and long-term impacts of offshore wind energy developments?
- b) Do you have any suggestions on what knowledge (from science, policy, or societal experience) is needed to better understand the cumulative impacts of offshore wind development on marine ecosystems?
- c) Are you aware of any knowledge gap analysis concerning any of these items?
 - i. (cumulative) impacts of offshore wind farms strategies to mitigate impacts of offshore wind farm expansions
 - ii. transformative strategies of offshore wind farm expansions (e.g. benefits for biodiversity in no-take zones around the wind farms)
 - iii. effectiveness of environmental impact assessments of offshore wind farm expansions.

2. How to contribute?

Please contribute your comments and knowledge/initiatives/references through the Eclipse Survey or through social media using the hashtag: #XXXX. Feel free to send us an email directly if you prefer or request a meeting with us, using emb@eclipse.eu.

We invite you to add any information that you think is relevant to this request and justify its inclusion (e.g. additional information from countries, scales, or disciplinary perspectives not covered sufficiently). We also warmly encourage you to help us disseminate broadly this call for knowledge.

Relevant information should be grouped under the following:

- (1) initiatives/projects (indicating if completed, ongoing or planned),
- (2) literature reviews,
- (3) empirical studies/practical experiences,
- (4) modelling studies, and
- (5) conceptual papers.

Contributions may include:

- (a) links to websites or contact details,
- (b) links to open access papers,
- (c) links to published and unpublished grey literature or case studies,
- (d) descriptions of ongoing research projects or knowledge compilations expected to deliver results within the next year or
- (e) your on-the-ground experiences in this field.



3. Objective of the call and request to be addressed by this call

The final framing of the request seeks to contribute primarily to the Marine Strategy Framework Directive (and its ongoing review). It will, however, also inform other EU legal instruments/policies such as the Maritime Spatial Planning Directive, Renewable Energy Directive, Biodiversity Strategy, Zero Pollution Action Plan, Marine Action Plan, Wind Power Action Plan, as well as regional and/or international agreements or processes, notably the Regional Sea Conventions Action Plans/activities, and other possible initiatives planned/taking place at a regional level through:

- a) the negotiation or implementation of a legal act (Directive, Regulation, Decision)
- b) the negotiation or implementation of a non-binding instrument (e.g., Strategies, Communications)
- c) the drafting of EU action plans or legislative proposals (either at the development, negotiation, or adoption phase)

The objective of this call for knowledge is to launch an initial scoping process on the request meant to identify available assessments, existing studies and other resources.

For further details, check Eclipse's [background](#), its [functions](#), and its [process](#) describing how it addresses requests from policy and society.

The Eclipse Scoping Team

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And the Eclipse Management Body.

If you have any questions, do not hesitate to get in touch with the Eclipse Management Body (<https://eclipse.eu/contact/>).