Annex 8

(Ref. § 9.18b)

OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic

Meeting of the OSPAR Commission

Berlin: 24-28 June 2024

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Terms of reference for OSPAR task group on aquaculture 2024 - 2026

**Background**

OSPAR’s 2023 Quality Status Report identified aquaculture as a medium-high intensity human activity in all OSPAR regions other than Region V. The activity was expected to increase in all regions up to and beyond 2030. Aquaculture is already increasing along the coasts and there are prospects for aquaculture expansion into new areas and environments, notably offshore (e.g., for salmon, mussels and oysters), and involving new species (e.g., seaweed). Land-based facilities with recirculating water (RAS), currently a niche part of aquaculture in the North-East Atlantic, are also likely to grow. Reporting on direct discharges in OSPAR revealed a substantial increase in the inputs of nutrients and heavy metals in particular in region I which can be attributed to aquaculture. The most recent reporting round on PARCOM recommendation 94/6 in OSPAR showed that large amounts of potentially toxic substances are still in use by the aquaculture industry.

Pressures from open cage marine finfish cultures, RAS, or shellfish aquaculture can include[[1]](#footnote-1):

* input of nutrients from diffuse sources, point sources, atmospheric deposition - nutrient enrichment from fish feeds;
* input of genetically modified species and translocation of native species - escaped or introduced fish;
* input of microbial pathogens - the transfer of parasites and diseases;
* input or spread of non-indigenous species - such as the sea squirt *Didemnum vexillum* (also known as sea vomit) or the Pacific oyster *Crassostrea gigas*, associated with shellfish aquaculture;
* input of other substances (e.g., synthetic substances, non-synthetic substances) from diffuse sources, point sources, atmospheric deposition, acute events - chemicals (including contaminants from fish feed and therapeutants);
* input of organic matter from diffuse sources and point sources;
* loss of, or change to, natural biological communities due to cultivation of animal or plant species - shellfish aquaculture may, in some circumstances, contribute positively to ecosystem services, but has potential pressures including removal of mussel seed;
* input of litter (solid waste matter, including micro-sized litter) - finfish and shellfish aquaculture can be a source of litter;
* input of anthropogenic sound (impulsive, continuous) - from devices to deter predators.

Further expansion of large-scale aquaculture may increase these pressures, while expansion of RAS systems might reduce some effects, although may lead to higher emissions of greenhouse gases if fossil energy sources are used.

The QSR thematic assessment on human activities sets out some possible priorities for OSPAR including increasing its understanding of the potential impacts of future growth in aquaculture and strengthening monitoring and assessment of measures taken by OSPAR Contracting Parties. In its 2024 assessment of new, emerging and increasing activities the Committee on the Environmental Impacts of Human Activities concluded that aquaculture is a priority area of work based on the scale of the activities and the pressures identified in the QSR 2023.

A number of strands of work are already under way across OSPAR Committees (Appendix A). However, there is a need for these activities to be more actively coordinated. There are also gaps, such as in setting minimum environmental standards for the OSPAR Maritime Area or guidance on best environmental practice/best available techniques.

Relevant strategic and operational objectives in the North-East Atlantic Environment Strategy 2030 include those on eutrophication, hazardous substances, marine litter (including a specific operational objective on reducing marine litter from fishing and aquaculture gear), marine biodiversity and productive and sustainably used seas.

**Objectives**

The objectives of the task group are:

1. To improve the coordination of existing OSPAR activities relating to aquaculture;
2. To identify any gaps in measures and actions on aquaculture where OSPAR could add value, and make proposals on additional NEAES tasks as appropriate and identify the responsible working group;
3. To improve the evidence base on the ecosystem services provided by aquaculture and its environmental impacts.

**Scope of work**

The task group will address all forms of aquaculture activities in all OSPAR Regions, covering the farming or cultivation of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. While the focus will lie on marine aquaculture, land-based aquaculture should also be considered due to its contribution of inputs via rivers.

The task group will consider potential positive and negative environmental impacts from current and future aquaculture activities and assess the risks (and benefits) from new and emerging technologies and identify appropriate ways to address these in the respective OSPAR subsidiary bodies.

The task group will coordinate across all relevant OSPAR Committees and subsidiary bodies, including the Biodiversity Committee, Committee on Environmental Impacts of Human Activities, the Committee on Hazardous Substances and Eutrophication and the Working Group on Changing Ocean Climate and Ocean Acidification.

The task group will take full account of work done in other regional and international fora, with the aim of ensuring that OSPAR adds value to existing activities and avoids duplication.

**Activities in the period 2024 – 2026**

The task group will

* Facilitate communication and information exchange between OSPAR task leads working on aquaculture-related topics;
* Review the extent of current and planned aquaculture development and the pressures and impacts resulting from them, taking into account the receiving environment;
* Make a gap analysis of current OSPAR work on aquaculture and make recommendations to CoG and relevant Committees on where OSPAR action can provide added value;
* Consider the need for and wording of an additional NEAES operational objective on aquaculture;
* Provide further advice to the relevant Committees and CoG, as appropriate, on whether to develop an action plan on aquaculture;
* Initiate an update of the QSR Feeder Report on Aquaculture, with the aim of publication by 2027 subject to a check that there have been many developments since the last report.

**Working procedures**

The task group will be responsible for organising its own meeting schedule according to the demands of the work. Meetings should be held on-line as far as possible.

The task group will report on progress primarily to CoG. However, it should as appropriate report to and seek input from all relevant Committees.

Task leads for individual actions will continue to report to and submit draft measures and other actions to their lead Committee. The role of the task group is to support and improve coordination between task leads. It has no decision-making function.

**Convenors and participants**

The task group will be convened by […..].

Participation is open to all OSPAR Contracting Parties and Observers. Participation from across the relevant Committees and subsidiary bodies is strongly encouraged.

Appendix A

Overview of OSPAR measures and actions on aquaculture

BDC

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| Action/measure | Relevance to aquaculture |
| OSPAR Recommendation 2016/3 on furthering the protection and conservation of the Atlantic salmon (Salmo salar) in Regions I, II, III and IV of the OSPAR maritime area | Recommendation national actions include assessing whether all measures that contribute to the conservation protection and restoration of Atlantic salmon, and its ecosystems, are effectively addressing the key threats identified in the Background document, including fish farming, through escape and accidental release, resulting in interbreeding and genetic effects, or spread of diseases and parasites;Cooperation with NASCO |
| Status Assessment 2022 – Atlantic Salmon | Includes assessment of threat from farmed salmonid aquaculture |
| QSR Thematic Assessment on non-indigenous species | Aquaculture/mariculture listed as one of the pathways for spread of NIS |
| NIS Expert group | Monitoring/assessment of the introduction of non indigenous escapees from aquaculture  |

EIHA

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| Action/measure | Relevance to aquaculture |
| ICES Advice: OSPAR request on interactions between wild and captive fish stocks (2014) |  |
| Scoping study to identify key waste items from the fishing industry and aquaculture (OSPAR 2019) | Output from first RAP-ML |
| QSR Feeder Report on Aquaculture (OSPAR 2021) | Assesses status of marine aquaculture in OSPAR Maritime Area. The analysis covers production of finfish, molluscs, crustaceans, aquatic plants, and miscellaneous aquatic products in the North-East Atlantic, in marine and brackish waters. |
| NEAES task S4.08.T5 Prevent and reduce marine litter from aquaculture | Action within RAP-ML2; OSPAR will work to prevent and reduce marine litter from aquaculture by gathering information, promoting good practice, and developing guidelines on litter prevention, monitoring, retrieval and site decommissioning.  |
| NEAES task S7.05.T1 Review the risks from new, emerging and increasing pressures on the marine environment | Assessment includes aquaculture; EIHA(2) 2023 considered it to be high priority for work in EIHA |

HASEC

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| Action/measure | Relevance to aquaculture |
| PARCOM Recommendation 94/6 on Best Environmental Practice (BEP) for the Reduction of Potentially Toxic Chemicals from Aquaculture Use | Active recommendation aimed at the reduction of the input of potentially toxic chemicals from aquaculture. A reporting round has been completed in 2023. |
| Regular reporting of direct nutrient inputs of marine aquaculture to the RID database | Shows increasing trends in nutrient inputs in particular for Region I ([OSPAR Indicator Inputs of Nutrients to the OSPAR Maritime Area](https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/indicator-assessments/inputs-nutrients/)). Not all CPs do report. |

1. QSR 2023 Human activities thematic assessment [↑](#footnote-ref-1)