



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES
Maritime Policy and Blue Economy
The Director

Brussels
MARE.A/DAK

Subject: AAC Recommendation on promoting low-trophic aquaculture (LTA and low-impact aquaculture (LIA)

Dear Mr. Thomsen,

Thank you for your Recommendation on promoting low-trophic (LTA) and low-impact aquaculture (LIA). I am replying to this recommendation on behalf of our Director-General Mrs. Charlina Vitcheva.

First, I would like to express my sincere apologies for only providing now a reply to this recommendation. I hope, nevertheless, that this reply provides a useful update on relevant developments since the receipt of the recommendation.

As you rightly point out, the Strategic guidelines for EU aquaculture¹ aim, among other objectives, to promote aquaculture systems with lower environmental impact, and those offering environmental benefits. Moreover, the EU Algae Initiative promotes specifically algae cultivation in the EU.

We have taken good note of your proposed definitions of LIA and LTA, as well as the mapping of existing productive areas of LTA. In your recommendation, you also identify ways to unlock the potential of this type of aquaculture. I will comment on your different recommendations below.

- *Monitor the assessment progress of the multiannual national strategic plans on aquaculture of Member States (MNSP) and the Strategic Guidelines regarding LTA development.*

As you know, in July 2024 the Commission launched a first **survey to Member States**, to monitor progress of the implementation of the Strategic guidelines and MNSP. This is part of a **yearly survey**, including also questions related to low trophic aquaculture. Therefore, we have established the means to monitor the LTA development and will continue to do so in the coming years. The Commission will launch a second survey to Member States during the first half of 2026.

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Furthermore, as you know, the Aquaculture Assistance Mechanism has worked on a **mid-term assessment of the implementation of the Strategic guidelines**. The final report has been recently published². This report notes, among other issues, the recent decline in bivalve mollusc production, due to environmental and climate factors, and to a lesser degree economic factors.

- *In a short- and long-term strategy, set quantitative production objectives per Member State for LTA and other LIA as well as indicators, including leading ones for monitoring their timely achievement;*

The Commission's efforts are currently focusing on ensuring enabling conditions for and addressing the existing challenges to the growth of LTA and LIA. In addition to the implementation of the Strategic Guidelines on EU aquaculture, which will also benefit LTA and LIA, the Commission has requested a **study on the ecosystem services of bivalve mollusc farming and extensive and semi-intensive fish farming in ponds and wetlands** (hereinafter referred to as the "study on ecosystem services"). This study aims at setting a sound scientific basis of those benefits, determining whether these types of aquaculture can develop further in the EU, identifying any obstacles for such development, and recommending ways to support such development. The final study will soon be published, and it will feed into a future document on promoting the environmental benefits of aquaculture, on which the Commission and the EU Aquaculture Assistance Mechanism will start working soon.

Moreover, in view of the decreasing trend in production of bivalve molluscs, the Commission has requested the Aquaculture Assistance Mechanism to prepare a **document on "Challenges in the bivalve mollusc farming sector and ways to address them"**. The Commission expects this document to be ready during the first quarter of 2026.

- *Integrate quantifiable environmental sustainability indicators to all aquaculture types, including the current and potential forms of LTAs, and LIA.*

As you know, the EU Aquaculture Assistance Mechanism has been working with the Commission, and in consultation with Member States and the AAC, on a **document on environmental performance of aquaculture**. This document includes: 1) an overview of different production systems and their interaction with the environment, 2) good practices and concrete examples of their implementation, and 3) a set of **environmental performance indicators**. However, in this context, environmental performance indicators are aimed at allowing the aquaculture producers to assess and document their environmental performance at farm level from "gate-to-gate". Although limited in scope, these indicators could be a good starting point for future more comprehensive work, as part of the definition of product environmental footprint category rules (PEFCR), which are currently developed only for marine fish. Both Member States and the AAC have been closely consulted during the preparation of this document. The Commission had the opportunity to present the last draft of this document to the AAM and Member States last October. The Commission has started working on a Staff Working Document based on the AAM work, to be published during quarter 1 of 2026.

- *Improve data collection on LTA feasibility while considering the capacity of the field, industry needs and the impact of global warming on the LTA and LIA ecosystems.*

As explained above, the study on the ecosystem benefits will analyse the feasibility of developing further in the EU both bivalve mollusc farming and extensive and semi-

extensive fish farming in ponds and wetlands. Moreover, a **study on “Scaling up cultivation of shellfish and algae”** funded under EMFAF was launched in July 2024. Updates on both studies were presented to the Member States and the AAC on 16 June 2025. The study on scaling up cultivation of shellfish and algae should be finalised before the end of 2025.

- *Promote and finance the quantification of ecosystem services (such as nitrogen sequestration) provided by LTA and LIA.*

The **study on ecosystem services** will analyse the scientific evidence on the ecosystem services of bivalve molluscs farming and extensive and semi-intensive fish farming in ponds and wetlands, as explained above. The results of this study will guide next steps, including the future document providing guidance on how to promote further these ecosystem services. The implementation of the **EU Algae Initiative** is also looking at the ecosystem services of algae farming and how to promote them. Regarding the quantification of ecosystem services, and more particularly nitrogen sequestration, the Commission is exploring a research topic under the **Horizon Europe** programme.

The Commission is also exploring to what extent LIA providing ecosystem services can be integrated in different ongoing actions, such as the implementation by Member States of the **Nature Restoration Regulation**, or actions under the European Ocean Pact such as the development of new regenerative and restorative business models for coastal communities. The future scheme of **nature credits** on which the Commission is working also has the potential to provide incentives for the support to LTA offering ecosystem services.

- *Support LTA and other LIA systems in scaling up their activities technically (where possible).*
- *Promote and finance research on LTA and LIA, including feed performance for aquatic species and lowering the overall carbon footprint.*

With respect to these two last recommendations, I would like to note that the Commission has funded under Horizon 2020 and Horizon Europe several research and innovation projects on low trophic aquaculture which can contribute to diversification of aquaculture production towards lower-trophic species: AquaVitae, NewTechAqua, OLAMUR, and ULTFARMS. The Commission has also funded several projects related to integrated multi-trophic aquaculture (IMTA): Astral, IMPAQT, BlueBoost and SeaMark.

The Commission is currently evaluating offers presented under the call on “Diversifying aquaculture production with emphasis on low-trophic aquaculture” included in the Work Programme 2025 of Horizon Europe, and a call under Mission Ocean and Waters on “Digital technologies and energy transition in fisheries and/or aquaculture”.

With respect to lowering the overall carbon footprint of aquaculture, you are aware of the **staff working document** published by the Commission in December 2024 **on the energy transition of the EU aquaculture sector**³. Work towards a **roadmap on energy transition in EU fisheries and aquaculture**, to be published by the Commission in the third semester of 2026, continues. This includes the work on a **study on CO2 GHG for**

aquaculture. These results of this study will be used as input to set the economic background of the energy transition for aquaculture and the future options in terms of pathways to achieve a carbon neutral sector by 2050. The study was launched in Mid-May 2025, and results will be published by the end of December 2025.

Regarding feed performance, as you know, there have been numerous research and innovation projects on sustainable feed and alternative feed ingredients. The Commission requested in January 2025 a **study on feed for aquaculture**, which will take into consideration the outcome of those projects. This study will also analyse the market of aquafeed and aquafeed ingredients, market trends, and sustainability factors. The study “Algae and climate⁴”, focused on algae, is also relevant, since it addresses the potential production costs of algae feed ingredients and the extent to which this production could contribute to feed for farmed animals.

I am looking forward to our continued fruitful cooperation to ensure the sustainable growth of aquaculture in the EU. Should you have any further questions on this reply, please contact Ms Julia RUBECK, coordinator of the Advisory Councils (Julia.rubeck@ec.europa.eu; +32.2.296.88.89), who will forward them to relevant colleagues.

Yours sincerely,

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