Multi-annual National Strategic Plans for the development of sustainable Aquaculture for the period 2021 to 2030

Summary LITHUANIA

"Plan for the Development of the Aquaculture sector in Lithuania for the years 2021-2030"

1. State of the aquaculture sector

Pond aquaculture is the most prevalent in Lithuania and is mainly used for carp production. Other more significant marketed fish species produced in ponds in 2020 were marbled broad-cut species and sturgeon. The recirculating aquaculture system (RAS) has the potential as it allows the consumer to choose to rear different species of fish and crustaceans currently produced in Lithuania — *African catfish, rainbow trout, eel, tillapia, whiteleg shrimps, Austrian cancers*, etc. The production of RAS is relatively small but has been increasing in recent years. Aquaculture ponds produced and marketed approximately 3659 tonnes of fish in 2020, while RAS accounted for around 709 tonnes of fish. The marketing value of aquaculture ponds in 2020 amounted to around EUR 10.4 million. The value of RAS's production and marketed production in 2020 was around EUR 2.8 million. The volume of organic aquaculture marketed in 2020 amounted to around 864 tonnes with a value of around EUR 2.2 million.

2. Objectives for 2021 to 2027

The plan aims to promote a sustainable, smart, resilient, and diversified aquaculture sector, ensuring the supply of fish products and meeting environmental and climate objectives.

Growth targets

The volume of aquaculture production to be achieved in 2030: 8500 Tm with a value of 26,5 million €. The organic aquaculture production will rise up to 1200 Tm and the number of enterprises in the aquaculture sector will be 75.

3. Objectives for Measures for 2021 to 2027 responding to the 13 key areas listed in the "*Strategic Guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030*"[1]

1. Access to space and water

Not currently exploited and no significant expansion of aquaculture ponds through the establishment of new ponds is foreseen. Therefore, it is not appropriate to draw up a spatial development plan for the aquaculture sector in Lithuania, identifying the water resources (surface or groundwater) suitable for aquaculture activities, considering their temperature and chemical characteristics and the potential flow rate, the areas of land adjacent to potentially suitable water resources. In Lithuania, the development of marine aquaculture is not planned due to the ecological state of the Baltic Sea and other conditions state of the Baltic Sea.

2. Climate change adaptation and mitigation

- To support the implementation of measures to reduce environmental pollution and technological innovation.
- To support the implementation of energy efficiency measures and to promote the use of energy from renewable energy sources.
- To support the implementation of adaptation measures.
- Energy consumption and carbon emissions from production, transport and processing must be reduced as much as possible.
- Aquaculture also has significant mitigation potential. Well-managed aquaculture can help preserve ecosystems such as wetlands. These ecosystems protect against climate change impacts such as sea-level rise and floods. This type of aquaculture should be promoted, as well as aquaculture providing circular economy, energy efficiency and ecosystem services.

3. Producer and market organisations

- Promote the establishment of producer organisations and the implementation of production and marketing plans.
- Encourage producer organisations and other associations in the aquaculture sector to present the production and achievements of aquaculture enterprises at international and local exhibitions, fairs and other publicity events.

[1] COM(2021)236 final

4. Control

- Supporting the participation of producer organisations in aquaculture in the implementation of food sustainability (traceability) schemes.
- Development of food quality schemes (QPs), relevant also to RAS, which meet consumers' needs and to ensure greater competitiveness of the local food market vis-à-vis foreign production. The implementation of QCs sets requirements for the production, processing, transport, and marketing of raw materials and may also include environmental and administrative requirements. It also lays down rules on certification and control. The labelling of products with QC labels informs the consumer about the specific characteristics of the labelled products, such as the place of origin, animal welfare, freshness, food safety aspects, etc.
- Food quality schemes (such as registered designations of origin, protected geographical indications, and traditional specialities guaranteed) and nationally recognised quality schemes have been regulated at the EU level.

5. Environmental performance

- Promote the development of aquaculture performing environmental functions.
- Promote the participation of aquaculture entities in the stocking of public non-rented water bodies.
- The Fisheries Service is the public body involved in the artificial breeding, restoration, and maintenance of nature-intensive fish species, establishing fish in natural waters, and not in competition with fish farms engaged in aquaculture.
- In autumn 2019, the Helsinki Commission adopted a conservation and recovery plan for the Acipenser oxyrinchus stock for 2019-2029. Lithuania, like the other Baltic Sea countries, has to ensure that the conservation and recovery plan for the Surgery Surgeon (Acipenser oxyrinchus) stock will be implemented in the historical habitats of the rivers of the Nemunas basin where the species previously lived. It is necessary to establish a financial mechanism to achieve this objective, to form a herd of sturgeon herds and to obtain from them sexual products and viable juveniles.
- Lithuania is committed to and implements the Eel Recovery Plan in Lithuania, approved by the European Commission on 22 December 2009. Lithuania is implementing an eel recovery plan with an average stock of 650 000 juvenile eel stocked each year.

6. Animal welfare

Promote aquaculture that ensures animal health and welfare, requires preventive measures for disease management and reduces the need for antimicrobials. Further actions are needed to improve fish welfare, focusing on:

- The development of good practices on fish welfare during farming, transport and slaughter.
- The establishment of common, validated, species-specific and audited fish welfare indicators (including those related to transport and slaughter) throughout the production chain.
- For further research and innovation, in particular those related to species-specific welfare parameters, including nutritional needs in different production systems.
- For the transfer of knowledge and skills on fish welfare to aquaculture producers and other workers working with live-farmed fish.

7. Knowledge and innovation

- Nature management in aquaculture establishments and conservation and restoration of biodiversity.
- Aquaculture animal welfare, health, pest, disease, and pollution control.
- Organisation of dietary processes for aquaculture animals.
- Organic aquaculture.
- Potential of biotechnology in aquaculture (e.g., micro-algae farming in bioreactors, innovative use of fish waste, etc.).
- Organisation of short supply chains for aquaculture products and development of local markets.
- Increasing the breeding value and productivity of aquaculture animals.
- Energy savings in aquaculture farms.
- Local production of feed and food supplements.
- Improving the management of aquaculture farms.
- Promote advanced technologies, and innovation, including digitalisation, in order to increase the efficiency of the use of material, human and natural resources.
- Promote the use of innovative technologies for the breeding and cultivation of marketable species of fish in pond aquaculture, flowing and RAS, giving priority to the production of species with lower trophic levels (crustaceans, other invertebrates, algae) and multi-trophic aquaculture systems, supporting not only small, medium-sized but also large-scale aquaculture operators developing and deploying innovation in the fastest developing and high-potential RAS technologies contributing significantly to the plan's indicators.

- Promote the aquaculture sector, and cooperate with scientific bodies implementing training programmes for aquaculture professionals and aquaculture associations, in particular producer organisations, with a view to improving their effectiveness.
- Increase access to knowledge and innovation for aquaculture operators, making wider use of cooperation opportunities between scientific institutions, advisors and the aquaculture sector, and regional organisations at national and international levels. The importance of cross-border cooperation between aquaculture enterprises and science, with a view to sharing and applying knowledge and good practices.
- To invest in identifying and implementing opportunities for the development of the bioeconomy in the aquaculture sector.
- Develop aquaculture with high-added value species and high technological potential (e.g., marine species in closed systems, seawater and/or geothermal resources, aquaponics, and algae technologies).
- Support research, assessment, and innovation (fisheries, reduction of environmental impacts, provision of environmental services, adaptation to climate change, etc.).

4. Funding

The plan is to be financed mainly through the state budget and the European Maritime, Fisheries and Aquaculture Fund (EMFAF). Other funding possibilities include the European Rural Development Fund and the European Regional Development Fund (including Interreg). Broader innovation adaptation needs in the aquaculture sector can be implemented through the European Horizon Programme.