



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

Summary SWEDEN

“Multiannual national strategic plan for aquaculture in Sweden 2021-2030”

1. State of the aquaculture sector

The majority of aquaculture products produced in Sweden are used for human consumption. Rainbow trout (*Oncorhynchus mykiss*), blue mussels (*Mytilus edulis*) arctic char (*Salvelinus alpinus*) account for the largest share of production based on weight. Aquaculture may also cover restocking or further rearing. Some species are also produced for their beneficial environmental characteristics, such as bivalve molluscs which, by filtering water, bind the nutrients that could otherwise lead to eutrophication. The most common aquaculture systems are open systems, semi-cast, closed systems, recirculation systems (RAS), aquaponics and biofloc. Swedish aquaculture production in 2019 is estimated at 9 600 tonnes. The total value of all food fish production (including crustaceans and molluscs) is estimated at SEK 400 million.).

2. Objectives for 2021 to 2027

- Development of sustainable aquaculture.
- Development of a competitive and sustainable food supply chain, in particular by considering skills supply, diversification, profitability and reducing the number of accidents at work and fatalities.
- Improving the research and innovation and the potential of the visitor industry.

Growth targets

The growth target for Swedish aquaculture by 2030 is an average increase of 5 % a year (or an overall increase of around 71 % from 2021 to 2030). This corresponds to an annual production of fish for human consumption, crustaceans and bivalve molluscs of approximately 21 803 tonnes and a total annual production, including seedfish and seedling crayfish, of 23 384 tonnes in 2030.

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

Localisation of aquaculture — from national to local. There is a proposal to develop a basis for locating aquaculture in maritime spatial areas, which could possibly be used in the next MSP cycle.

2. Regulatory and administrative procedures

- The measure “National coordination of permit and supervision processes” shall help avoid duplication of examination and achieve shorter, time-limited processing times, as well as increased coordination of permit and supervision processes.
- The Swedish Agency for Economic and Regional Growth, the Swedish Board of Agriculture and the National Food Agency have developed a prototype of a service for collective information on aquaculture. The aim of the service is to enable entrepreneurs to conduct all dialogues with authorities, from initial to ongoing reporting on a common platform, in order to minimise and simplify the provision of information. Work on the mission is ongoing until 2025.

3. Public and animal health

- The Maritime, Fisheries and Aquaculture Programme provides support for animal health measures to ensure that Swedish aquaculture meets high animal welfare standards as the ambition is. The emphasis of the measure on disease control makes it an effective tool to improve the health status of animals.
- The measure under the Maritime, Fisheries and Aquaculture Programme provides support for companies to carry out control measures in the event of outbreaks and to allow for continued production after remediation.

¹ COM(2021)236 final

4. Climate change adaptation and mitigation

- The Action Plan for the Development of Swedish Aquaculture 2021-2026 highlighted four measures related to climate change. The measure “Environmental impact and benefits of aquaculture” aims to reduce the negative environmental impact of aquaculture while at the same time exploiting the environmental benefits of more sustainable Swedish aquaculture throughout the value chain.
- Measures such as “Digitalisation of Swedish aquaculture production”, “Development of production techniques and species” and “Nutrition and feed development” are also linked to efforts to develop aquaculture towards greater climate adaptation.
- The Swedish Maritime, Fisheries and Aquaculture Programme supports efforts to improve energy efficiency and reduce dependence on fossil fuels by investing in renewable energy sources, switching to alternative fuels and reducing fuel consumption. Investments can also be made in algae that contribute to increased carbon removals. The programme also supports efforts to reduce the climate impact through start-up support for installations that increase carbon removals.

5. Producer and market organisations

Under the Maritime Fisheries and Aquaculture Programme, support will be provided for setting up aquaculture producer organisations. The programme also allows for support for the development of production and marketing plans and for participation in management at the EU level.

6. Control

There are no specific measures foreseen for capacity building in this area.

7. Environmental performance

- The Maritime, Fisheries and Aquaculture Programme will offer support opportunities for projects developing new solutions to reduce the negative environmental impact or increase the positive environmental impact of aquaculture. Support will also be provided for the development of more environmentally friendly technologies in open systems and for investment in these technologies.
- The objective of the measure “Environmental and environmental impacts of aquaculture” is to raise awareness among the industry, public authorities and the general public about the impacts and benefits of aquaculture, thus

contributing to more efficient and clearer authorisation processes and a better understanding of the aquaculture industry. The action “Nutrition and feed development” includes a number of actions aimed at supporting the development of more sustainable feed, feeding standards and feeding techniques leading, inter alia, to reduced environmental impact. The action “Development of production techniques and species” proposes activities aimed at identifying new ones and supporting the development and establishment of aquaculture technologies and species with high potential based, inter alia, on environmental viability.

8. Communicating on EU aquaculture

- Under the measure “Market measures”, there are a number of actions aimed at showing Swedish aquaculture’s environmental and quality work through common labels, thereby strengthening the image of producers and products among consumers.
- The Maritime, Fisheries and Aquaculture Programme will also provide support for the certification of fisheries and aquaculture products. The measure aims to support operators in the fisheries and aquaculture sector to certify their production.
- The National Centre of Competence for Aquaculture (NKfV) is a strategic cooperation between the Swedish University of Agricultural Sciences (SLU) and the University of Gothenburg (GU). The Centre of Excellence shall be responsible for coordinating research and education and for disseminating knowledge-based information to society, public authority and nutrition.

9. Integration in local communities

The “Training and Upskilling” action includes a number of training and upskilling measures aimed at the general public.

10. Data and monitoring

- The Maritime, Fisheries and Aquaculture Programme will provide support for data collection for the Common Fisheries Policy. The aim of the measure is to ensure the necessary knowledge base for the implementation of the CFP. This is done through the collection, management and use of biological, environmental, technical and socio-economic data resulting in advice requested by the management.
- The Action Plan for the Development of Swedish Aquaculture 2021-2026 contains a number of measures aimed at improving data collection in aquaculture, which at the same time contribute to increased productivity, more

efficient use of resources, reduced environmental impact, improved animal welfare, and improved traceability and transparency of the distribution chain of products from Swedish aquaculture.

11. Knowledge and innovation

- The actions envisaged under the measure “Training and upskilling” are intended to ensure a broad supply of skills for all Swedish aquaculture operators and to contribute to increasing the innovation capacity of the sector.
- The Maritime, Fisheries and Aquaculture Programme will provide support opportunities for innovation projects covering the entire production cycle of aquaculture from catch to board to stimulate innovation in aquaculture and processing.
- Actions aimed at developing new solutions can be found, for example, in actions “Development of production techniques and species”, “Nutrition and feed development”, and “Reproduction and production for further breeding”.
- National marine and water research programme lasting until 2030. The programme shall create the conditions for a strategic and long-term approach, taking a holistic approach to oceans and waters, in order to contribute to the achievement of the environmental quality objectives, the generational objective and Sweden’s implementation of the 2030 Agenda. This should include, inter alia, research that improves the understanding of natural processes and their interactions, as well as pressures and impacts on the environment and climate as well as the productive capacity of ecosystems.

4. Funding

- The funding of the Maritime, Fisheries and Aquaculture Programme consists of both an EU and a Swedish-funded share.
- Other sources of funding within the EU: Interreg Baltic Sea Region 2021-2027 development, Life Programme, Horizon Europe.
- Other national sources of funding for aquaculture in Sweden: In the context of the Food Strategy 2020-2025, the Board of Agriculture has been given a government mandate to further develop the promotion of aquaculture and, by coordinating the Swedish aquaculture industry, to create a sustainable and competitive food supply chain in the long term.