



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

## Summary BULGARIA

### “Multiannual National Strategic Plan for Aquaculture in Bulgaria (2021-2027)”

#### 1. State of the aquaculture sector

Aquaculture in Bulgaria is mainly produced in freshwater and is dominated by the representatives of carp fish: common carp (*Cyprinus carpio*), bighead carp (*Hypophthalmichthys nobilis*), white bighead carp (*Hypophthalmichthys molitrix*), white grass carp (*Ctenopharyngodon idella*), Prussian carp (*Carassius auratus gibelio*), followed by salmonid species: rainbow trout (*Oncorhynchus mykiss*), river (Balkan) trout (*Salmo trutta*). There is a constant interest in growing European catfish (*Siluris glanis*), white fish (*Sander lucioperca*), pike (*Esox lucius*) and, in recent years, Russian sturgeon (*Acipenser gueldenstaedti*), Siberian sturgeon (*Acipenser baerii*), paddlefish (*Polyodon spathula*), African catfish (*Clarias gariepinus*), etc. In the Black Sea only the black mussel (*Mytilus galloprovincialis*) is grown. Bulgaria uses the following production facilities for the farming of fish and other aquatic organisms: specialised ponds (earth and concrete), cages (netted cells), dams (free range), recirculation systems (RAS) and black mussel collectors. In 2019, the production volume was 16500 t per year, the number of active fish farms were 446. The number of people employed (full-time equivalent) in 2018 was 866.

#### 2. Objectives for 2021 to 2027

The strategic objectives are:

- Development of sustainable aquaculture, environmentally friendly and beneficial to the exploitation of water resources.

- Increasing demand for and consumption of sustainably produced locally produced aquaculture products.

### 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*”<sup>1</sup>

#### 1. Access to space and water

The Maritime Spatial Plan of the Republic of Bulgaria for the period 2021-2035 is developed and is awaiting approval by the European Commission. The document strongly supports the objectives set in the area of Coordinated Spatial Development with regard to the identification of suitable areas for the potential development of marine aquaculture. The territorial development of aquaculture of water bodies should also be reflected in the process of drawing up the municipal spatial plans.

#### 2. Regulatory and administrative procedures

Simplified administrative procedures with improved regulations aim to create mechanisms for advice and cooperation of administrations to simplify regulations and requirements for registration and transport of live fish, including reduction of administrative burden. Limiting changes to the existing legal framework on requirements for the establishment of economic activities in the aquaculture sector to reasonable limits would significantly contribute to ensuring a predictable regulatory environment for economic operators to plan and implement their business plans. Development of information and consultation opportunities for stakeholders, including supporting processes to support SMEs in the sector to avoid administrative and financial burden in the transition to a sustainable food chain, also supported by the EC Farm to Fork Strategy. A targeted analysis of the procedures should be carried out, including an ex-post assessment of the impact of the Water Act in the relevant parts of the procedure for the registration of an aquaculture farm for economic operators in the fisheries and aquaculture sector.

#### 3. Environmental performance

Modernisation of existing farms towards a more sustainable model with less environmental impact (e.g., water recirculation systems). As well as adopting measures that do not hinder fish passage (pressures) in natural watercourses.

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<sup>1</sup> COM(2021)236 final

*Development of semi-intensive and extensive fish farming in small and medium-sized dams* due to the numerous environmental benefits provides, as they represent suitable habitats for different birds and aquatic animals, and the cultivation of fish preserves the traditional characteristics of the habitat areas of these species. A large proportion of the water used in them is returned to the natural water body and its quality has improved in many respects after the farm, due to the low flow of water in the ponds and the associated sedimentation capacity of the ponds, due to the relatively long stay of the water in the ponds and the extraction of a great amount of biogenes (nitrogen and phosphorus) from the water from the macrophytic vegetation that develops in them. Measures under this strand are: changes to the legal framework for the long-term use of small and medium-sized ponds for fish farming, improvement of the production characteristics of the dam/pond by reconstruction and modernisation of technical facilities and elimination of water and terrestrial vegetation fouling, diversification of polyculture with the addition of additional commercially valuable fish species such as European catfish, whitefish, pike, tench, sturgeon species, lake crayfish, etc., combining aquaculture production with various forms of recreational and sport fisheries. *Cage aquaculture in large dams* — sustainable and environmentally friendly. It is known that containment farms have an impact on the eutrophication of water bodies, so their future sustainable development is linked to the introduction of limits in production volumes as well as good production practices that prevent adverse effects on the individual components of aquatic ecosystems. Measures under this strand are: development of good practices in cage farming of fish, scientifically justified limits for production volumes, individually for each water body and using more effective feeding methods, maintaining health status.

#### 4. Producer and market organisation

Promoting the association and capacity building of existing aquaculture producer organisations, as well as supporting the development of voluntary certification schemes, sustainability recognition schemes and the creation of short supply chains. There is a need to promote coordinated action at local level between entrepreneurs, producer organisations, public authorities, associations, research institutions and education and training organisations, and an essential role in these processes should also be given to Fisheries Local Action Groups and to the National Fisheries Network.

#### 5. Diversification and adding value

Promotion of the development of marine aquaculture in the Black Sea through the introduction of new culture species that are already developed and validated worldwide, as well as by species that are naturally occurring in the Black Sea as they are already adapted to its conditions. Measures under this strand are training of skilled workers in technologies for different types; spatial analysis for the establishment of

places with a high suitability for the construction of mariculture farms; analysis and selection of species of fish and other marine organisms most suitable for farming in Black Sea conditions; establishment of a specialised laboratory for the development of biotechnology for the breeding and farming of marine organisms for aquaculture purposes. Trade diversification can provide additional sources of income for producers. This type of activity may include the integration of aquaculture production with tourism activities — fishing, children’s thematic training camps and events. Activities leading to the promotion of shortening supply chains also have the potential to contribute to increasing competitiveness. Fisheries Local Action Groups as well as Producer Organisations can play an important role in the process of developing integrated activities in the sector.

Measures under this strand are:

- Direct sale of fish on farm through stalls, online shops, mobile shops, farmers’ markets, etc.
- Adding value to production by carrying out primary processing of the output in its own premises.
- Diversification of aquaculture activity through the development of additional activities in areas surrounding the pond/basin, such as tourism, recreational fishing, etc.
- Adding value to the farm’s activities by building accommodation for tourists, equipping a pond with recreational fishing facilities, building catering facilities, etc.
- Promoting fish farming as part or as an ancillary activity of the farmer’s general agricultural activity, i.e., promoting the development of a family-type business capable of generating sustainable employment, including family members, low-skilled workers and vulnerable groups in rural areas characterised by high unemployment.
- Promote participation in voluntary schemes for the provision of aquaculture services, such as support for farms located in Natura 2000 areas, bird habitats, protected and wetland areas, etc. In order for farms to be viable, financial support is needed to compensate for income foregone and higher costs incurred by meeting the specific requirements associated with their operation in protected areas.
- Electronic markets and exchanges.
- Regional (physical) markets and exchanges with a greater variety of products and producers that are recognisable by customers.
- Diversity of marketing strategies, e-marketing, direct sales, use of social networks.
- Encouraging various forms of cooperation between producers.

## 6. Animal welfare

Contribution to animal welfare through production systems that control water quality and quantity parameters. Use the expertise of aquaculture professionals to implement good production practices in the breeding of aquatic organisms.

## 7. Knowledge and innovation

The sustainability of Bulgarian aquacultures depends on the interaction between national research centres, educational centres and programmes and production plants. Their joint participation in research and innovation will support the development of both scientific and productive activities. At the same time, research and innovation is a key driver for accelerating the transition to sustainable, healthy and inclusive food systems from primary production to consumption. Spin-off firms are an important means of technology transfer, allowing specific knowledge generated in universities' research structures to enter the market and successfully absorb them through the creation of new businesses. Measures under this strand are:

- Building new and upgrading existing laboratories for the research, development and drilling of biotechnology for breeding and breeding of hydrobionts.
- Establishment of scientific and lifelong training centres for professionals employed in the Aquaculture sector.
- Construction of spin-off firms.
- Introducing mandatory participation in the production process of skilled workers (with qualifications in aquaculture) in farms engaged in artificial breeding, introducing new species (for the country) into aquaculture, implementing projects under national or European programmes and/or subsidised by national or European funds.

## 4. Funding

The EC envisages additional support under Horizon 2020 for research and innovation in food, bioeconomy, natural resources, agriculture, fisheries, aquaculture and environment, as well as for the use of digital technologies and natural solutions for agricultural and food products.