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**COMMUNICATION FROM THE COMMISSION TO  
THE EUROPEAN PARLIAMENT AND THE COUNCIL**

**Building a sustainable future for aquaculture**

**A new impetus for the Strategy for the Sustainable Development of European  
Aquaculture**

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# COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

## Building a sustainable future for aquaculture

### A new impetus for the Strategy for the Sustainable Development of European Aquaculture

#### 1. INTRODUCTION

Modern aquaculture represents a major innovation in the production of fish and aquatic food and has been the fastest growing food production sector with an average worldwide growth rate of 6-8% a year. With a global production of nearly 52 million tonnes in 2006, world aquaculture has increased by one third since the beginning of the millennium, driven by spectacular growths in Asia and South-America. It already provides about half of the world fish supply for human consumption and has a significant potential for further growth<sup>1</sup>. This makes it a key part of the solution to meet future demand for fish. But developing aquaculture shall not undermine the necessity to reduce and eventually eliminate the overfishing of wild stocks in pursuit of sustainable exploitation of the oceans. Thus aquaculture provides huge opportunities and raises considerable challenges, particularly in relation to environmental sustainability of production as well as to the quality and safety of the products. Aquaculture is an important economic activity in certain coastal and continental areas of the EU. It covers freshwater and marine finfish as well as shellfish bred in various types of farming systems: closed or open, extensive or intensive, on land, in lakes, in ponds - fed by rivers or even groundwater - near the shore or offshore. Several Community policies have an impact on this activity, and the structural policy in support of the Common Fisheries Policy has contributed significantly to the evolution of this industry in Europe. From an artisanal and small scale activity, aquaculture has become a high-tech industry with fully integrated businesses. The EU-27 aquaculture industry produced about 1.3 million tonnes of fish, shellfish and crustaceans in 2006, representing a turnover of around 3 billion € and generating approximately 65,000 jobs. Current EU consumption demand accounts for about 12 millions tonnes.

The EU strategy for sustainable aquaculture<sup>2</sup> adopted in 2002 has set out policy directions to promote the growth of aquaculture. Seven years on, significant progress has been made in ensuring the environmental sustainability, safety and quality of EU aquaculture production<sup>3</sup>. Yet over the same period overall EU aquaculture production has stagnated, in stark contrast with the high growth rate in the rest of the world.

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<sup>1</sup> FAO: The state of world aquaculture 2008 (data excluding aquatic plants).

<sup>2</sup> Communication from the Commission on a Strategy for the Sustainable Development of European Aquaculture - COM(2002) 511.

<sup>3</sup> In 2007, the Commission took stock of the progress made and launched wide public consultation and debates with stakeholders on the prospects for the aquaculture industry in Europe: See [http://ec.europa.eu/fisheries/cfp/governance/consultations/consultation\\_100507\\_en.htm](http://ec.europa.eu/fisheries/cfp/governance/consultations/consultation_100507_en.htm) and [http://ec.europa.eu/fisheries/meetings\\_events/events/archives/events\\_2007/conference\\_151107\\_en.htm](http://ec.europa.eu/fisheries/meetings_events/events/archives/events_2007/conference_151107_en.htm)

Against the background of fast-changing technologies and persisting economic and environmental challenges it is timely to take stock of the strength and weaknesses of the EU aquaculture sector. This Communication aims to identify and address the causes of this stagnation, with a view to ensuring that the EU remains a key player in this strategic sector. It will build on the achievements of the 2002 aquaculture strategy and on the new impetus for marine activities provided by the EU Integrated Maritime Policy.

## **2. A VISION FOR THE FUTURE OF EU AQUACULTURE**

### **2.1. Current challenges and outlook**

The EU represents one of the largest aquatic-food markets in the world, increasingly relying on imports to cover a growing demand. It benefits from a dynamic and cutting-edge research and technology sector, advanced equipment and fish feed, qualified and trained entrepreneurs and innovative enterprises, as well as from a solid environment and health protection legal framework. Yet the challenges for the EU aquaculture sector are numerous: e.g. limited access to space and licensing; industry fragmentation; limited access to seed capital or loans for innovation in a risky context (particularly with constant changes in the economic situation and in trade patterns); pressure from imports; insufficiency of medicines and vaccines. In addition, stringent EU rules, particularly on environmental protection, generate competitive constraints vis-à-vis competitors in Asia or Latin America.

The EU should invest in the global market, by selling its technologies and know-how in order to help tackle sustainability and safety challenges.

The aquaculture industry is still relatively unknown to public authorities and investors. It faces the challenges of an evolving society competing for space and increasingly concerned about the environmental sustainability of farming activities.

### **2.2. Building the future of the EU aquaculture industry**

The Food and Agriculture Organisation of the United Nations predicts world seafood consumption will continue to rise. This demand cannot entirely be met by fish from the wild. Even if wild stocks were recovered to Maximum Sustainable Yield levels, the rapidly expanding demand will also have to be met from aquaculture production. The EU must meet these challenges and prepare for this growing demand in order to satisfy consumer demands.

The EU aquaculture industry of the future should be at the forefront of sustainable development. The appropriate measures must be put into place to ensure that our industry can take a lead role in the "blue revolution", whether this concerns the production of aquatic food itself, technology and innovation, or the setting of standards and certification processes at EU and international level. In order to achieve this goal, the aim of this Communication is to help bring about the conditions for a successful and sustainable aquaculture industry that can compete successfully in the market. The industry should be able to cover the whole supply chain including both high value and innovative products, which meet the needs of consumers in the EU and abroad, and the production of high standard equipment for aquaculture businesses.

The production of aquaculture food and equipment must be supported by the most advanced research and technology. The EU must maintain a strong research and technological edge to stay at the forefront in this strategic area and improve the competitiveness of the aquaculture

sector by encouraging it to continuously develop and use innovative technologies and management techniques. Advanced research and technology must also help the aquaculture industry to be environmentally sustainable. This would allow a number of EU aquaculture businesses and the associated technology-providing industry to invest abroad.

Market conditions will shape the way in which the industry contributes to supplying healthy and safe aquatic food products while at the same time decreasing the EU's dependence on imports. EU producers should position their products on the market as high value products based on their environmental performance, high health standards and traceability, and further develop markets in the EU and abroad. In this regard, voluntary labelling and certification schemes compatible with WTO provisions can strengthen consumer confidence and improve the position of aquaculture products that meet rigorous quality standards.

With the help of advanced research and technology, aquaculture must be an industry that is environmentally compatible. Environmental sustainability is a necessity and consumers also increasingly want to be assured that aquaculture products are produced and transported while fully taking account of high standard environmental requirements. Applying high standards will eventually also improve the image of the aquaculture industry and facilitate its access to the markets.

A number of important challenges that limit the development of European aquaculture directly depend on policies and actions taken at national or regional level. Public authorities must therefore establish an appropriate framework for this vision to become concrete, and should contribute to lifting bottlenecks in national legislation. This framework needs to be predictable, consistent and cost effective in order to allow the industry realise its potential.

This Strategy can therefore only deliver if its vision and objectives are fully supported by all, and further strengthened and relayed by public authorities at national and regional level.

### **3. PROMOTING COMPETITIVENESS OF EU AQUACULTURE PRODUCTION**

In order to bring about this vision for European aquaculture, the EU should promote a competitive and diverse aquaculture industry (including equipment and technology providers), supported by the most advanced research and technology, covering the whole supply chain and meeting consumer demands in a sustainable manner. The priority needs for sustainable aquaculture development will also be assessed in the context of the reform of the Common Fisheries Policy and its future financial framework. In this context the Commission will consider in particular establishing specific funding possibilities for measures beyond the national dimension.

#### **3.1. Research and technological development**

The EU has been a key contributor to research and technological development in aquaculture. Under the 6<sup>th</sup> Research Framework Programme, 98 million € have been allocated to research projects for aquaculture, among which 32 million € for SMEs. It is essential to continue and reinforce such support.

The sustainable development of aquaculture should be supported by excellence in research and innovation. Industry leaders have recently launched an initiative aimed at establishing a European Aquaculture Technology and Innovation Platform (EATIP), with the view to enabling it to maintain its world leadership, and to provide a strategic vision and define

priorities for the European aquaculture sector with respect to research and technological development. Technological innovations in farming systems have proven efficient means for the aquaculture industry to reduce their environmental impacts.

It is essential to further support excellence in research and technological development in aquaculture, to promote private initiatives in this area and to expand the opportunities for its financing. Public funded research may act as a lever to private R&D and should concentrate on priorities, especially those that cannot be fully supported by SMEs or with high investments risks. In this context, synergies with maritime activities should also be found (e.g. offshore aquaculture).

#### The Commission

- Will pursue efforts in aquaculture R&D, and allocate a sufficient EU budget to aquaculture projects to further develop the knowledge-base for sustainable and competitive aquaculture practices. The Commission will also look for a more efficient use of existing instruments at European level. In parallel, Member States and the industry are invited to increase their investment in aquaculture research in the context of the European Research Area;
- Will promote optimisation and development of key research infrastructures and reinforce networks and integration into broader scientific networks to address global challenges such as adaptation to climate change in the context of the new Maritime Policy and its strategic research agenda<sup>4</sup>;
- Invites Member States to recognise the importance of extensive and traditional forms of aquaculture and to consider possibilities of developing production in existing sites and facilities.

Furthermore, adequate insurance, covering stock and/or technology related risks, can play a significant role in supporting the development of the aquaculture industry, especially of innovative projects where the impact of losses may be considerable. The Commission will therefore analyse the impact of the projects and consider whether it is appropriate to adapt the current Guidelines for the Examination of State Aid to Fisheries and Aquaculture.

### **3.2. Equal competitor in terms of space**

The increasing competition for space represents a major challenge for further developing or even maintaining all forms of coastal aquaculture, as well as freshwater fish-farming.

Area choice is crucial and spatial planning has a key role to play in providing guidance and reliable data for the location of an economic activity, giving certainty to investors, avoiding conflicts and finding synergies between activities and environments with the ultimate aim of sustainable development.

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<sup>4</sup> Communication from the Commission: "An EU Strategy for Marine and Maritime Research" - COM(2008) 534.

The Commission

- Will continue its initiatives to promote the development of maritime spatial planning and Integrated Coastal Zone Management, as identified in the framework of the new EU Maritime Policy<sup>5</sup>;
- Invites all Member States to develop marine spatial planning systems, in which they fully recognise the strategic importance of aquaculture. In this context, as part of the preparation of the next reform of the Common Fisheries Policy, the Commission will consider the possibility to strengthen the linkages between Community financial instruments and the issue of access to space for maritime activities, including aquaculture;
- Invites Member States to ensure that terrestrial land planning fully integrates the needs and values of freshwater aquaculture.

### **3.3. Enabling the aquaculture business to cope with market demands**

The EU aquaculture industry should be able to answer to consumer demands, be adaptable to changing market requirements and be capable of interacting on an equal footing with the other actors of the marketing chain<sup>6</sup>. The Commission will review the market policy of fisheries and aquaculture products in 2009 and will

- Assess and address needs of the aquaculture sector, in particular regarding producer organisations, inter-professions, consumer information and marketing instruments such as labelling of aquatic food products, in the framework of the future reform of the market policy for fisheries and aquaculture products;
- Continue its work with Member States, the European Parliament and stakeholders to develop and promote standards (notably on organic aquaculture or on Eco-labelling Schemes);
- Continue its international cooperation on labelling and certification issues, notably with the FAO.

### **3.4. The International dimension**

An innovative industry is also an opportunity for the associated sectors (e.g. equipment, fish feed, animal health industries) to expand and export their know-how to other parts of the world.

In this context, the Commission will

- Consider establishing a basis for promoting aquaculture development in third countries and to increase business opportunities for EU aquaculture firms, in the framework of the external dimension of the Common Fisheries Policy;

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<sup>5</sup> COM(2007) 575 and COM(2008) 791: Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU.

<sup>6</sup> The "Consensus" project provides a positive example of improved discussion among stakeholders of the marketing chain.

- Develop, in the context of its new animal health action plan, an export strategy at Community level in order to strengthen the Community role in negotiating export conditions related to animal health issues;
- Continue to promote the need for sustainability in aquaculture development at international level with a view to improve the environmental record of some present practices and improve the level playing field for this sector at a global level.

#### **4. ESTABLISHING CONDITIONS FOR SUSTAINABLE GROWTH OF AQUACULTURE**

The Community shall ensure that the EU aquaculture industry develops in a way which is compatible with a high level of protection of the natural environment. On the same lines, aquatic food products that are manufactured in or imported to the EU shall comply with high protection standards of consumer health and safety. The Community should also pursue its objectives for a high level of protection of health and welfare in farmed aquatic animals.

##### **4.1. Ensuring compatibility between aquaculture and the environment**

###### *4.1.1. An environmentally-friendly aquaculture*

The EU is committed to a high level of environmental protection and Community legislation is based on the precautionary principle. Technologies for cleaning water by removing wastes and contaminants are available and the further development of new technologies to decrease effluent is also likely to be significant in the coming years. Compliance with Community water legislation is also crucial to ensuring the water quality needed to produce quality and safe food.

The Commission will

- Continue to emphasise the importance of environmentally sustainable development of aquaculture in its policies and actions;
- Continue to monitor developments in terms of escapees and if necessary, assess the added value of possible action at the EU level.

###### *4.1.2. An aquaculture-friendly environment*

Aquaculture requires water of the highest quality to guarantee health of aquatic animals and safe and high quality products.

The first river basin management plans developed by Member States under the water framework Directive (WFD)<sup>7</sup> shall, as a minimum, maintain the present protection level of shellfish growing areas as afforded by the Directive on shellfish water quality<sup>8</sup>. The Commission also believes that the first update of the WFD river basin management plans in 2015 should, as a minimum, maintain the same level of protection and that newly designated areas for the production of shellfish should be designated as protected areas under the WFD. Different regulatory regimes for old and new shellfish areas would not be an option.

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<sup>7</sup> Directive 2000/60/EC.

<sup>8</sup> Directive 2006/113/EC.



In this context the Commission will

- Ensure that Member States provide an appropriate level of protection of shellfish waters under the first river basin management plans established under the water framework directive;
- Enhance information targeting national competent authorities and the industry to ensure a proper implementation of the WFD and of the Marine Strategy Framework Directive<sup>9</sup> as regards aquaculture activities, including the development of guidelines on the application of the WFD to shellfish areas;
- Assess the need to complement the EU water protection legal framework in view of the repeal of the Directive on shellfish water quality.

#### **4.2. Shaping a high-performance aquatic animal-farming industry**

Optimal husbandry conditions, good health and adequate feed well suited to the physiological needs of the farmed aquatic animals are essential for optimal growth and production. Guaranteeing the welfare of farmed fish also contributes to a better image for the aquaculture industry.

##### *4.2.1. Securing animal health*

The EU legislative framework on aquatic animal health and on the prevention and control of certain diseases in aquatic animals has been reviewed in 2006. The Commission will secure a full implementation of Directive 2006/88/EC and ensure that aquatic animal health needs are fully taken into account in the new animal health policy strategy and its implementation action plan<sup>10</sup>. In this context the Commission will

- Assess and possibly review the list of important diseases for aquatic animals<sup>11</sup> by 2011;
- Review, in 2009, the current provisions regarding additional guarantees for some diseases imposed at Member State level, in order to ensure that these measures do not represent unjustified barriers, while maintaining a high level of animal health protection;
- Assess the present financial instruments available to support measures dedicated to the health of aquatic animals (in particular regarding the promotion of on-farm bio-security measures and training). This assessment will be integrated in the reform of the Common Fisheries Policy and the associated financial framework.

##### *4.2.2. Ensuring animal welfare*

Animal welfare is a common concern to consumers, policy makers and producers. Beside its ethical dimension, animal welfare appears as an important criterion in the choice of consumers.

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<sup>9</sup> Directive 2008/56/EC.

<sup>10</sup> COM(2008) 545.

<sup>11</sup> In this framework, the Commission has already de-listed Spring Viremia of Carp from the list of diseases covered by Directive 2006/88/EC.

The scientific base for fish welfare is far less developed than that for terrestrial farm animals. In line with the action plan on animal welfare<sup>12</sup> the Commission will thus

- Seek advice on fish welfare on a species dependent basis and will promote the need for a species-dependent approach at international fora (in particular the World Organisation for Animal Health);
- Launch in the next two years, an evaluation on fish welfare in aquaculture with a view to examining possible legislative and non-legislative measures. Besides, the Commission intends to revise present provisions in the "animal transport Regulation"<sup>13</sup> which currently apply to all vertebrates but are not suitable to aquatic animals;
- Encourage industry initiatives aimed at ensuring the welfare of farmed fish.

#### 4.2.3. *Addressing the need for veterinary medicines*

Fish diseases are both an animal health and an animal welfare issue. It is therefore of utmost importance to allow controlled and prudent use of medicines on farmed animals. The limited availability of authorised veterinary medicinal products to address health risks remains however one of the major problems for the aquaculture industry.

The Commission will

- Encourage Members States and concerned stakeholders, to implement the recommendations made by the "Availability Task Force" in its 2007 report<sup>14</sup>, and will participate in the proposed regular reviews of the situation;
- Contribute to improve information exchanges between the competent authorities and the different actors of fish health, in particular by convening "experts & stakeholders" meetings.

#### 4.2.4. *Ensuring high quality and sustainable feed-stuff for fish*

Access to affordable and easily available fish-feed remains a critical issue for the development of aquaculture. The main aquaculture species demanded by the European market are carnivorous species and their feeding still largely depends on the availability of fish meal and fish oil. The sector's reliance on fish meal and fish oils as main constituents for fish feed may raise concerns about both its economic and environmental sustainability. On the one hand, fishmeal/oils production struggles to meet a growing demand, pushing prices upwards. On the other hand, the use of fishmeal/oil from industrial fisheries may challenge the sustainability of the sector and be detrimental to its image. At the same time, various considerations must be taken into account in the search for suitable alternatives, ranging from consumer protection to animal welfare. When defining community rules and standards for fish-feed a careful balance must be struck between the benefits from high consumer protection and the constraints put on the competitiveness of the industry.

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<sup>12</sup> COM(2006) 13.

<sup>13</sup> Regulation (EC) No 1/2005 on the protection of animals during transport and related operations.

<sup>14</sup> <http://www.hma.eu/203.html>

[http://www.hma.eu/uploads/media/TF\\_Report\\_Availability\\_Vet\\_Medicines.pdf](http://www.hma.eu/uploads/media/TF_Report_Availability_Vet_Medicines.pdf)

Within its policy for a very high level of consumer protection, the Commission will contribute to facilitating EU aquaculture through improving the EU feed law through

- Increasing the availability of necessary additives for fish feed, notably on the basis of guidelines on "smooth" authorisation procedures of feed additives adopted in May 2008;
- Securing the adoption of its proposal for the revised "Animal by-product Regulation"<sup>15</sup>, to ensure that aquatic animals can be given feed originating from aquatic animals while preventing the feeding of a fish species with feed originating from the same fish species.

#### **4.3. Ensuring consumer health protection and recognising the health benefit of aquatic food**

To guarantee a high level of consumer protection, competent authorities have to take preventive measures and impose requirements to ensure food quality and safety, as well as to establish surveillance and market prohibitions where necessary. This requires a solid and scientifically-based identification of these risks, and a level playing field. The Commission will

- Continue to address the need to ensure that aquatic food products are safe for the consumer, both such food produced in the Community and food imported from third countries;
- Maintain the legislative tools in accordance with new knowledge on food safety in order to address the food safety risks in the most appropriate way. In this framework, the Commission will re-examine the situation on bio-toxins on the basis of the review on marine bio-toxins awaited from the European Food Safety Agency (EFSA) by mid 2009;
- Continue to base its actions on science and on the precautionary principle. The Commission will also assess and take into account also the health benefits related to the consumption of aquatic food.

### **5. IMPROVING THE SECTOR'S IMAGE AND GOVERNANCE**

European aquaculture should benefit from an improved framework for governance. It is also important to improve the image of aquaculture and to create a level-playing field at EU level, conducive to the sustainable development of aquaculture. Consultation with stakeholders is important to raise the profile of aquaculture businesses. But national authorities have a primary role in shaping aquaculture development in their territory.

#### **5.1. Better implementation of EU legislation**

Better implementation of EU legislation by Members States should ensure a level-playing field among economic operators on decisions affecting the development of aquaculture.

The Commission will also contribute to this objective and

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<sup>15</sup> COM(2008) 345.

- Develop guidance documents and organise specific workshops with stakeholders and national authorities to facilitate the knowledge and implementation of its main environmental policy instruments. In this context, priority will be given to guidance documents on aquaculture activities and Natura 2000;
- Ensure that Member States implement EU animal health and consumer protection law properly, with additional guidance developed where needed. The Commission will continue carrying out "on the spot" inspections and audits, and ensuring that third countries meet requirements at least equivalent to those laid down in EU legislation. The Commission will focus particularly on proper implementation of tests for marine biotoxins in shellfish and of the new Directive on health policy and control of diseases in aquatic animals by all Member States.

## **5.2. Reducing the administrative burden**

Reducing the administrative burden, especially for Small and Medium Enterprises is essential to promote development.

The Commission

- Will continue to develop its policy of simplifying the legislative environment and the reduction of the administrative burden at EU level;
- Invites Member States to take measures to facilitate business development and reduce the administrative burden deriving from national provisions, notably by simplifying licensing procedures for aquaculture.

## **5.3. Ensuring proper stakeholder participation and appropriate information to the public**

Wide and adequate consultation is instrumental for better regulation and better governance to which the Commission is fully committed. The industry and public authorities should give transparent information to enhance the image of the industry.

The Commission

- Will assess the need to revise and to raise the profile of the aquaculture industry, and the possibilities to reinforce the role of aquaculture representatives;
- Will create a forum for dialogue between the European Aquaculture Technology and Innovation Platform, the Commission and Member States' research programme managers to facilitate the programming of research activities at Community and national level;
- Invites Member States to support pro-active public information initiatives from the aquaculture industry, in particular using the possibilities available in the European Fisheries Fund.

## **5.4. Ensuring an adequate monitoring of the aquaculture sector**

Public policies need to be supported by reliable indicators. Until recently, official EU statistics on aquaculture were of a rather limited scope. In this context the Commission will

- Monitor the progress and evolution of this sector, in particular by way of the new statistics Regulation<sup>16</sup> and the new data collection framework;
- Actively participate internationally (most notably with the FAO) to further develop and collect global and harmonised indicators for this growing industry;
- Broaden its information-base regarding market prices. The Commission will put in place the necessary measures to establish a price monitoring system for fisheries and aquaculture products throughout the marketing chain.

## 6. CONCLUSION

The global developments and the strategic importance of aquaculture in terms of food security contribute to give this sector a promising future.

In the EU, the aquaculture sector has become a modern, dynamic industry that produces safe, high valuable and high quality products, and has also developed the means to be environmentally sustainable. But this industry is also facing a number of challenges. This strategy should deliver the best possible growth potential for the EU aquaculture industry, taking into account both our assets and constraints.

This Communication aims at increasing awareness among policy makers and public bodies, about the importance of aquaculture in the European Union. This Strategy also aims at providing EU leadership and guidance to both stakeholders and administrations to ensure consistency and clarity in designing the policies needed for the sustainable development of European aquaculture. We need to turn the EU aquaculture challenges into opportunities.

To achieve these ambitions, all actors, private and public, will have to be committed to the future of the European aquaculture sector.

The Commission therefore invites the Parliament, the Council, and all interested parties to support this EU aquaculture strategy and to work in partnership between public authorities and interested parties, at EU, national and local levels to unlock the potential for EU aquaculture development, while continuing to ensure environmental sustainability and the highest health standards.

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<sup>16</sup> Regulation (EC) No 762/2008