

# Aquaculture Development: Partnership between Science and Producer Associations

## *Highlights of the EIFAC Symposium held in May 2004 in Wierzba, Poland*

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**A** Symposium on Aquaculture Development "Partnership between Science and Producer Associations" was held during 26–29 May 2004 in Wierzba, Poland, in conjunction with the Twenty-third Session of EIFAC<sup>4</sup>, the European Inland Fisheries Advisory Commission. More than 70 experts from 23 countries attended the Symposium which benefited from the participation and experience of the Federation of European Aquaculture Producers (FEAP) and the European Aquaculture Society (EAS).

### **Background and scope**

There is an increasing trend within the European aquaculture sector towards creating partnerships and collaboration between aquaculture producers and scientists, government officials and other stakeholders. Producers are recognized as key players for establishing sustainable aquaculture development, being direct users of resources during the production of food. However, more interaction and better communication and coordination between producers and natural and social scientists, as well as other stakeholders interested in aquaculture, is required. The Symposium goals were to discuss roles, opportunities and needs of aquaculture producer associations in the EIFAC region, to identify possible contributions by science, governments and other stakeholders, in support of such associations, and to propose measures to strengthen participation, activities and positions of aquaculture associations in

the management and development of the aquaculture sector. The Symposium sessions further focused on partnership experiences between science and production, on scientific results for practical applications, and on aquaculture and fisheries interactions.

### **Experiences**

A significant range of activities within this scope were presented by the European Commission (CEC), the Federation of European Aquaculture Producers (FEAP), the European Aquaculture Society (EAS), and AquaTT<sup>5</sup>. A variety of programmes and projects, including AquaFlow<sup>6</sup> (an important thematic network) as well as Asian experiences demonstrated the wide range of issues associated with interactions between the scientific and production sectors.

The European Community adopted a strategy for the sustainable development of the European aquaculture industry in September 2002 that is now being implemented. The strategy aims to maintain the competitiveness, productivity and sustainability of the European aquaculture sector. It also aims to enlarge the knowledge base of the industry, so appropriate partnerships should be promoted at all levels, particularly between science and industry.

In recent years, the European Commission has contributed to strengthening the links between the aquaculture industry and scientists by promoting participation of the industry in



*... fish for people and the market ....*

research projects and concerted development actions; examples include 'AquaFlow', for the networked dissemination of RTD project results, and the PROFET<sup>7</sup> programme for the identification of the research needs of the aquaculture sector. The EU's 6<sup>th</sup> Framework Research Programme offers new possibilities to scientists and producer associations to improve their partnerships under the specific measures for small and medium-size enterprises (SMEs). In addition, the FIGG (Financial Instrument for Fisheries Guidance) regulation has been modified to allow the financing of small-scale applied research initiatives. The European Commission strongly recommends producers and scientists to make use of the instruments that exist at community level.

The symposium recognized that the level of organization, representativeness and effectiveness of producer associations varies throughout Europe, where there are strong national associations and regional federations as well as associations which are still growing in membership and influence. The small-scale

producers, the highest number of enterprises active in the European fish farming sector, are often isolated and in need of information, in addition to scientific and structural support. These represent the part of the sector that needs the greatest assistance in terms of support from strong professional associations that, in turn, also have the most difficulty in being established and supported financially by their members.

Surveys of aquaculture producer associations in Asia, conducted by the Network of Aquaculture Centres in Asia-Pacific (NACA<sup>8</sup>), showed the wide range of approaches and purposes, and organizational and working patterns adopted by such associations. These also displayed different levels and modes of representativeness, independence, participation and consultation, empowerment and policy influence. Key issues include communication and cooperation with governments, scientific institutions and other parties, as well as supportive legislation and enabling environments facilitating and promoting such associations.



Participants presented numerous and wide-ranging examples of partnerships between producer associations and science, which included:

- Provision of information to farmers; identification of producers' research needs; formulation of national and pan-European research agendas; training of producers,
- Provision of the quality of inputs used in aquaculture (e.g. feeds, seed, water, skills) and culture-based fisheries; identification of scientifically-sound criteria and para-meters;
- Environmental management and monitoring of shellfish production; genetic strain improvement, organic carp production; restocking of lakes and integrated management of lagoon fisheries and aquaculture;
- Identification of bottlenecks in policy and regulation and diversification of production; Development of national aquaculture sector development strategies; market chain cooperation;

Examples of multi-stakeholder partnerships were: the management of lagoon fisheries in France and Italy, which involve producers, scientists, processors, sellers, and government authorities, as well as a carp production consortium and a multi-functional carp farm in Hungary. Professional aquaculture has to show that it can provide added-value, in many different ways, to the area or the region in which it is developing. This added-value, aside from the products themselves, can be demonstrated in terms of the development of opportunities for jobs, conservation, (eco) tourism and other economic opportunities related to the production activity.

Partnerships between associations and science can assist aquaculture producers in: production (stocking density, feeding regimes), technologies (water efficient and environmentally friendly systems), management (to enhance skills in farm and business management), economics (e.g. cost-benefit analyses and economic feasibility studies) and marketing (such as related to low market prices, accessing market information). Attention was drawn to Aquainnovation<sup>9</sup>, an example of a partnership between science and producer associations and other stakeholders at pan-European level. This new partnership was set up in a project format,



*Measuring ... for production and science*

aiming to establish a network of stakeholders that should address the gaps in international transfer of technical information that is essential for SMEs.

Experiences of partnerships between science and the production sector were generally good, although awareness and communication of issues, problems and solutions can be enhanced further. This can be achieved through regular communication between partners, by formalizing consultations and participative coordination processes. Equally, efforts should be made to create conditions for the successful implementation of the outcomes of the partnerships and stakeholder consultations. Positive results could be obtained, as examples, by adapting legislation, establishing research projects, identification of funding possibilities (research, training, investment). For the purposes of sectoral management, it can be important that consultation fora are institutionalized in order to facilitate partnerships and enhance involvement of stakeholders in information collection, knowledge building, policy development and decision-making.

### **Aquaculture research**

Aquaculture research increasingly addresses social and economic issues, including financial management, product marketing, food safety, consumer preferences, integration with local area and regional management, and institutional, legal, and governance aspects. Social science assessment methodologies are being increasingly applied. They examine interactions between stakeholders, analyze fishery product chains, identify development potentials in local and regional contexts, and facilitate stakeholder participation, consensus building, and policy formulation and implementation.

Many aquaculture scientists and individual producers are still production-oriented and do not pay enough attention to the financial, marketing and quality aspects of the production processes. Market-driven production is still not common in some countries, but efforts are under way to increase experience and to apply effective farm management for the production of competitive aquaculture products. Partnerships to establish marketing chains for fishery products can enable producers to respond more effectively to consumer demands. Successful chains require cooperation between producers, their associations, scientists, wholesalers, the processing industry and retailers.

New production projects - including diversification efforts - should be based on a realistic cost-benefit analysis (investment/operational costs included) that accounts for market situations. Too often, mistakes have been repeated by investors or authorities, at different times and in different countries, which could have been avoided through improved communication with experts and availability of information.

It was recognised that there are significant linkages between research and development programmes for aquaculture and fisheries, as illustrated by the involvement of both sectors in enhancement and rehabilitation schemes aimed at monitoring and improving fish stocks in inland waters. Recreational fisheries are important for the development of aquaculture, the rehabilitation of fish stocks and for the economy in general.

Participants discussed the differences between theoretical and applied research and the use of research outputs in practice. There is a need for the terminology of scientific research results to be communicated in terms that can be easily understood by producers. Ideally, every aquaculture research paper should include a summary, in simple language, of its main findings and practical applications.

More focus is needed on the dissemination of technical information to aquaculture producers. Most scientific publications are not easily accessible to aquaculture producers and the main research findings require translation for communication in popular magazines. Another way of disseminating essential information is through workshops, meetings and conferences where private sector aquaculture producers



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### *Communicating ....for production and science*

can discuss and exchange experiences with scientists. However, the mobility of professional producers is limited and the use of Association or Professional meetings provides the potential for larger audiences.

Funding constraints for applied research are common, as some consider that the sector should contribute to its own applied research programmes and activities. Nevertheless, government funding for aquaculture research is still needed. The support of government agencies was highlighted, particularly since national research programmes are the most important source of funding for European aquaculture research, and it was suggested that these should be more directly involved in supporting the work of the producer associations.

### **Stronger producer associations**

Stronger national associations are needed to respond to increasing legislative, market and consumer demands and to be able to respond to the requests for better self-regulation. Achieving this requires partnerships with science and efficient communication and networking. While such circumstances exist and are quite strong at the European level, efforts are needed to improve dissemination and cooperation at the most basic of levels.

There is a trend towards broader cooperation and consultation involving multiple stakeholders, including potential investors. There is need to access professional management and communication skills within the producer associations, a requirement that accompanies sectoral development and new market and consumer demands. Support is also needed to develop and consolidate the producer associations in those countries where

aquaculture is developing or undergoing significant structural changes.

The Symposium participants reiterated the importance of partnerships in the overall context of promotion of sustainable aquaculture development, in particular in the implementation of the provisions of the FAO Code of Conduct for Responsible Fisheries<sup>10</sup> and the FEAP's Code of Conduct for European Aquaculture<sup>11</sup>.

## Recommendations by EIFAC

The main recommendations of the symposium were discussed by the 23<sup>rd</sup> Session of EIFAC, which was held immediately after the Symposium. EIFAC's main conclusions and recommendations are as follows.

Cooperatives, trade associations and producer organizations/associations are essential mechanisms, not only to improve marketing but also to cover R&D costs that many small farms cannot afford. Targeted research and development programmes have significant benefits for aquaculture producers. Successful partnerships are characterized by good understanding and communication between partners, clear comprehension of their needs and pro-active positions, as well as coherent national and European RTD policies.

Producers should be assisted in the organization of representative associations. They should also participate in priority-setting and decision-making processes, and be provided with access to information and education.

Partnerships are important in the overall context of promotion of sustainable aquaculture development. Strong professional associations

are required to establish and maintain successful partnerships with scientists. Multidisciplinary approaches should encompass consumer, social and economic issues, and should facilitate cooperation and consultation involving multiple stakeholders.

EIFAC agreed on the following recommendations to its Members:

- Durable partnerships should be promoted at all levels, highlighting the requirement for skill development and securing financial resources for the operation of producer associations,
- RTD programmes applicable to SMEs and associative groupings should be promoted,
- International organizations, such as EIFAC, FEAP and EAS should continue working together to demonstrate the benefits of partnerships in the promotion of sustainable aquaculture,
- Core funding should be sought to promote networking, effective dissemination of research results and communication among inland fisheries and aquaculture stakeholders,
- Organizations such as EIFAC should address the social and economic influences on the sustainability of inland fisheries and aquaculture.

EIFAC welcomed the symposium recommendation to continue the approach of promoting partnership consultations between science and production at future symposia, and to widen the scope by including other relevant stakeholders.

<sup>1</sup> FEAP: [www.feap.info](http://www.feap.info); [www.aquamedia.org](http://www.aquamedia.org)

<sup>2</sup> HAKI: Research Institute for Fisheries, Aquaculture and Irrigation: <http://www.haki.hu/english/default.htm>

<sup>3</sup> EAS: [www.easonline.org](http://www.easonline.org)

<sup>4</sup> EIFAC: [www.fao.org/fi/body/eifac/eifac.asp](http://www.fao.org/fi/body/eifac/eifac.asp)

<sup>5</sup> AquaTT: [www.aquatt.ie](http://www.aquatt.ie)

<sup>6</sup> AquaFlow: [www.aquaflow.org](http://www.aquaflow.org)

<sup>7</sup> PROFET transnational workshops on research needs of the European fish farming sector: [www.feap.info/news/RTD/profet\\_en.asp](http://www.feap.info/news/RTD/profet_en.asp);

<sup>8</sup> NACA: [www.enaca.org](http://www.enaca.org)

<sup>9</sup> Aquainnovation: [www.aquainnovation.net](http://www.aquainnovation.net)

<sup>10</sup> FAO Code of Conduct for Responsible Fisheries: [www.fao.org/fi/agreem/codecond/codecon.asp](http://www.fao.org/fi/agreem/codecond/codecon.asp)

<sup>11</sup> FEAP Code of Conduct for for European Aquaculture: [www.feap.info/feap/code/default\\_en.asp](http://www.feap.info/feap/code/default_en.asp)