

FEUFAR

The future of European fisheries and aquaculture research

The Challenge

Land and sea based human activities such as maritime transport, coastal tourism, fisheries, aquaculture, seabed exploitation, and sea based renewable and conventional energy, have all made an immense contribution to society, but they also have a growing impact on seas and oceans, to the point that the very balance of oceanic systems is being affected.

In 2005, the European Commission called for an all-embracing EU maritime policy, supported by excellence in marine scientific research and technology. FEUFAR was funded as part of this framework to define the research that will be required in the next 10 years in the field of sustainable fisheries and for the farming of aquatic resources (finfish and shellfish) in the context of key challenges, risks and opportunities for meeting sustainability requirements.

Project Objective

FEUFAR looked to identify future research needs, based on an integrative and interactive foresight methodology including (i) describing the system; (ii) detecting the driving forces in the system and (iii) constructing hypotheses about the driving forces leading to potential scenarios for the future. These different scenarios provided the basis for the identification of issues from an economical, ecological, societal and managerial (governance) perspective, which may need attention or be the key challenges in the future. Based on the analysis, some of the key future needs for research in capture fisheries and aquaculture were identified.

Key Points

FEUFAR:

- Produced a comprehensive inventory of existing foresight analyses in fisheries and aquaculture, including the distillation of their key messages, and identifying themes, threats, drivers and developments in science and policy;
- Built scenarios, taking into account interactions between ecological, economical and societal factors;
- Defined key challenges, strategic options research needs, with input from the fisheries and aquaculture sectors, research organizations, policy-makers and other stakeholders.

Key Points

- A 7-volume report on the future of European fisheries and aquacul-

EATiP Thematic Area of Relevance

- TA1:** Product Quality, Consumer Safety and Health
- TA2:** Technology and Systems
- TA3:** Managing the Biological Lifecycle
- TA4:** Sustainable Feed Production
- TA5:** Integration with the Environment
- TA6:** Knowledge Management
- TA7:** Aquatic Animal Health and Welfare
- TA8:** Socio-Economics and Management

Key Words

Foresight, marine, fisheries, aquaculture, drivers, scenarios, research

Project Information

Contract number:
44178

Contract type:
Specific Support Action

Action line:
POLICIES-1.3 The modernisation and sustainability of fisheries policies

Duration:
20 months (01/01/2007 – 31/08/2008)

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ture research, that includes

- A synthesis of foresight studies done over the last 10 years in fisheries and aquaculture
- Systems and drivers within the marine environment
- Micro and macro scenarios and research issues
- A research agenda for fisheries and aquaculture

Output Highlights

Cross-cutting themes

Three cross-cutting themes were highlighted, notably data collection and analysis, risk management and outreach. These issues are of a generic interest affecting all sectors and themes. Implementing these cross-cutting themes is not so much a priority in research, but is a prerequisite to implement the research needs produced by FEUFAR.

Fisheries

Fisheries research needs are grouped into areas of gear and operational technology (environmentally friendly for target resource of appropriate size; improvement of fuel efficiency); Management and governance (multi-annual and multi-species management models and approaches; further basic knowledge into the socio-economics of fishing communities; monitoring and enforcement technology beyond VMS; artificial habitat creation and better understanding of fish behaviour); valorisation of underused components of the catch and basic research on populations of lower trophic level resources.

Aquaculture

Aquaculture research needs are grouped into areas of development of diversified healthy seafood for consumers (new species; improvement of existing species); decreasing environmental impacts (decreasing pressure of fish wild stock; decreasing antibiotics and other medicines; decreasing genetic “pollution”) and development of non-food products (molecules for medicine, food additives...; biofuel production; bioremediation) and improvement of production systems (integrate, offshore, recirculation....).

These research needs are enshrined within broader areas of an ecosystem approach to management, consumer preference and market development and socio-economics and governance.

Next Steps – Suggested Actions/Follow On



Policy

- The final report contains recommendations for strengthening the EU Maritime Policy and for future policy developments in aquaculture and fisheries.



RTD

- The research needs identified by FEUFAR may be used by the Commission to develop future research workprogrammes, for the needs that it considers are most efficiently addressed through public research funding.



Knowledge Transfer

- FEUFAR was based on a participatory approach, with consultation workshops organized at each milestone of the project. The final report is available as a series of volumes at <http://www.feufar.eu/default.asp?ZNT=S0T1O0P159>

Related Publications/Projects

Other EU projects addressing research needs are IMPACT FISH, PROFET POLICY and AQUAINNOVA. Other foresight studies and related publications may be found in the final FEUFAR report.