## **Fisheries research**



Solid fisheries policy rests on solid science. And today, this means science which goes well beyond narrowly targeted questions about the biology and demographics of specific fish stocks. To understand fisheries, we need to understand the multi-dimensional context in which they operate - whether it be local or regional marine ecosystems, wider environmental trends such as climate change or, just as importantly, the social and economic 'systems' back on land which are the ultimate context of all the decisions made. To have a global vision of how a fishery has evolved, and will evolve in the future, we need access not only to accurate data, but also to complex interdisciplinary research which cuts across both academic and national boundaries.

The EU is not simply a user of fisheries science, but a major facilitator and funder of research in all domains connected with fisheries and the seas. This funding is provided through two main channels: support for national fisheries data collection programmes, along with associated studies (see chapter 5 of the brochure); and financing for advanced EU-level research projects managed under the **Research Framework Programmes.** 

## Marine science in the Research Framework Programmes

To ensure coherent, coordinated action, all EU-funded research initiatives are organised under a single umbrella, known as the EU Research Framework Programmes. These programmes are open not only to the EU Member States, but also to third countries from around the world. A number of non-EU countries also contribute to funding the programme ('associated countries') and enjoy greater access to its benefits in return.

As part of these programmes, substantial funding is made available for fisheries and aquaculture research. Under the 6th Framework Programme (FP6), which covered the period 2002-2006, EUR 160 million was used to fund around 50 fisheriesspecific research projects (62 M€) and 75 aquaculture projects (98 M€), of which 30 were funded under the SME programme. These projects tend to be large-scale and long-term, often bringing together ten or more research institutes located in as many Member States. The projects funded under FP6 were grouped into a number of priority areas: scientific

basis of fisheries management, environmental aspects, control and enforcement, sustainable aquaculture, and the dissemination of research results. There were also a number of other large FP6 projects which, while not focused mainly on this field, had a fisheries or aquaculture component.

Launched in 2007, FP7 will provide funding at a similar level for fisheries-related projects. During 2007-2008, fourteen of the topics which were subject to calls for proposals dealt with fisheries and aquaculture science. Of these, 11 projects have been selected for funding to a total value of EUR 32 million. In addition, FP7 will also promote cross-sectoral research in the marine sciences (especially under the themes of Energy, Environment and Transport), so as to make sure that the marine dimension plays a pro-active role in the fields covered by the programme. This represents a major contribution to our knowledge of Europe's seas and oceans. More than 10% of the subjects of calls for proposals in the first two years of FP7 dealt with either marine sciences or marine-related topics.

## **Fisheries research**

This move towards a more horizontally integrated approach is in line not only with the ecosystems-based approach to fisheries management, but also with the EU's new integrated maritime policy. In the shorter term, this will also help prevent the kind of fragmentation of research initiatives which can all too easily lead to the duplication of effort by different teams in different places. Such fragmentation is in itself an obstacle to more 'joined-up' policy making. In the longer term, the EU is likely to move away from a narrowly sectoral approach to the marine sciences towards an integrated EU strategy for marine and maritime research as proposed by the Commission in autumn 2008. The aim of such integration is to facilitate coordination and ensure a multi-dimensional approach to complex problems, not to blur the specificity of the challenges facing any particular sector. Fisheries research will remain a crucial and distinctive component of the EU's research efforts under FP7, and into the future.



## Supporting fisheries and aquaculture research

To give a taste of the diversity of research which the EU funds, here are some examples of projects financed under FP6:

- PROTECT (2005-2008): Ecosystem conservation and fisheries management through Marine Protected Areas: improving the tools to identify, design and manage MPAs (17 research institutes from 11 EU Member States and Norway; EUR 3 million budget);
- INDECO (2004-2006): Developing environmental indicators for assessing fishery management: creating model indicators for the CFP's implementation of an ecosystem-based management approach (20 research institutes from 11 Member States; EUR 0.5 million budget);
- NECESSITY: Modified fishing gear and practices to reduce by-catch in trawl fisheries (2004-2007): concrete practical work on trawl design to reduce by-cach of dolphins, porpoises, certain fish species, and juveniles (22 research institutes from 11 EU Member States, Norway and Turkey; EUR 7.7 million budget);
- WEALTH (2005-2007): Improving the health and welfare of farmed fish: detailed studies of stress-induced infections and guidelines for good practice (11 research institutions from 7 EU Member States and Norway; EUR 5.5 million budget);

- CEVIS: Evaluating alternative, participatory management models for EU fisheries (2005-2008): options for implementing cost-effective management systems with stakeholder participation (10 research institutions from 7 Member States and Norway, plus the European Commission's Joint Research Centre);
- CEDER: Real-time monitoring of fishing activity (2006-2007): building on vessel monitoring systems (VMS) and electronic logbooks to develop a design for an EU-wide real-time monitoring system (16 research institutions from 7 EU Member States, Greenland, Iceland and Israel, and the North-East Atlantic Fisheries Commission; EUR 2.4 million budget);
- ISTAM: Improving fishery data acquisition, management and analysis (2006-2008): developing training systems to strengthen fisheries conservation and management in developing coastal states (12 research institutions from 4 EU Member States, Norway, Senegal, Guinea, Mauritania and Morocco; EUR 0.6 million budget).

The range of the 7<sup>th</sup> Framework Programme, launched in 2007, should be just as wide, and it is set to make an equally important contribution to the successful implementation of the CFP.