

Knowledge to lead fisheries from global crisis towards sustainability

Highlights from an international workshop at the Commission, 3-4 December 2001

Global marine catches have declined since reaching a peak of about 80 million tons in the late 80s rather than increasing as official world statistics have misled us into believing. This shocking state of affairs was demonstrated in *Nature* (Vol. 414, 29 Nov 2001). It shows that misreported national statistics have been disseminated through FAO which, as an intergovernmental organisation, relies on official national communications. This may have, unwisely, influenced planners and investors alike. Per capita availability of fishery products has declined even more drastically from more than 15 kg per person a year to less than 12 kg in the same period.

There could not have been a more telling background to a meeting of some 17 international experts on different aspects of fisheries and aquaculture that took place at the European Commission in Brussels 3-4 December 2001. The experts covered a wide range of disciplines from marine ecology, fishery, aquaculture, economics, social anthropology, international environmental law, modelling, to indicator development and food security/safety. The meeting was convened by the international scientific co-operation programme of the EC's Research Directorate to get advice on future research priorities to lead from the current crisis towards sustainability.

Knowledge and learning are now understood to be key factors for creating sustainable socio-economic activities.

According to data presented at the meeting and available in the FishBase information system (www.fishbase.org) a large number of fisheries catch a high percentage of young fish, which have not had the chance to reproduce even once. Catching fish only at a size when they have reproduced at least once, and protecting areas to rebuild habitats, would increase catches and also help to restore degraded ecosystems as also shown in the Caribbean (in an article published in *Science*, Vol. 294, 30 Nov. 2001). So why is it not being done?

The experts identified market and institutional failures in the fishing and the aquaculture industries as among the most serious reasons for the prevailing unsustainable practices. Lack of understanding of the functioning of ecosystems, and of how ecosystems and social and economic systems interact, have contributed to this sorry state of affairs. The narrow organisation of research along single-disciplinary lines has not helped to enable this broader understanding.

They identified research priorities to chart pathways for a sustainable future through restoration

of degraded ecosystems, adding value to aquatic resources products and services and ensuring more choice and participation by stakeholders. Such research must mobilise many different competencies in order to match the nature of the problems and must also be willing to share its questions and results with the public. These priorities should, among others, be reflected in the forthcoming 6th EU Research Framework Programme, particularly in its dimension of international co-operation. They can build on a large body of research and development co-operation between Europe and partners in Africa, Asia and Latin America and on other bilateral and international scientific co-operations.

The group considered that some measures could be taken on the basis of knowledge that is already available. One approach suggested by the group was that some case studies should be set up with interested fisheries in different parts of the world to move them onto a sustainable path from both an ecological and socio-economic perspective. Consumers, fish processors and marketers interested in healthy and sustainable food could also directly influence fishing strategies if they refused to buy fish that are too small to have reproduced. ■

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