

The text below is the full version of an invited World View article which appeared in *Nature* on 7 July 2011. The published version was edited and shortened to the usual 900 words. The more extensive text below can be used, e.g., as verbatim statements by Rainer Froese.

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Fishing at the Edge of Collapse: 27 Years of Common Fisheries Policy in Europe

In 2001 I returned to Germany from the Philippines, where I had worked for 10 years mostly on tropical fish and fisheries. I soon realized that the status of European fish stocks was no better than that in developing countries. Despite considerable efforts by hundreds of European fisheries scientists, data were lacking for most stocks, and even for the best researched ones, internationally agreed reference points, such as the maximum yield that can be taken sustainably (MSY), and the stock size required to support such catch were just not available. So, in the winter of 2008 / 2009 I sat down and analyzed the available data myself. The results made me want to cry. With few exceptions, fish stocks in Europe had been systematically decimated, even more so than in the rest of the world. In stock after stock, excessive fishing of 3 to 5 times above the internationally agreed reference point had reduced biomasses to 10 - 20% of their unexploited size. Extreme fishing pressure had shrunk cod to half of the length that our parents were used to. It had also reduced the natural adult lifespan of many years to a single spawning event, at best. Such fishing had effectively turned multi-spawning cod into single-spawning salmon.

It took me a while to realize that the sad state of European fish stocks was not a natural or societal failure that management just could not overcome despite its best efforts. No, the fact that most fish stocks balanced on the edge of collapse was the desired outcome of the Common Fisheries Policy of Europe (CFP), in force since 1984. In September 1996, the European Commission had asked the Council for the Exploration of the Seas (ICES), its main scientific advisory body for fisheries, to provide reference points that carry a low probability of stock collapse. ICES obediently provided limit reference points for stock size and fishing pressure and so-called 'precautionary reference points' slightly away from those limits. Fisheries management subsequently used these boundary posts of viable stock sizes as targets for fisheries management, but overshot the precautionary boundary for catches by 40 - 50% on average, effectively aiming for stock sizes on the slope to collapse.

Much of European fisheries research was dedicated to determine these boundary posts and next year's stock size with the highest possible precision. But why had my hard-working colleagues accepted such a questionable role, which strikes me as being similar to that of a medical doctor at a water boarding session? Why were their considerable research efforts not dedicated to determine fishing regimes that maximize benefits for society while minimizing negative impacts on the stocks and the marine ecosystems? Why were economists and social scientists not welcome in ICES advisory bodies? Why was the public not fully informed about the dismal state of European fish stocks? Why were fishers not informed about sustainable high catches and profits that healthy stocks could provide? Why were the internationally agreed reference points for sustainable fisheries management not made available and promoted by ICES?

These questions go to the root of the failure of fisheries management in Europe. The fishes in Europe's seas are owned by the citizens of Europe. These citizens have entrusted responsible management of this public good to their national Governments, where it is typically given to the Ministry of Agriculture with its associated research institutes. These institutes employ the fisheries scientists. Typically the ministry-approved heads of such institutes or someone from the ministry are the national delegates to the ICES Council, which determines ICES policies. ICES working groups give advice on stock sizes and potential catches to the European Commission. After extensive consultations, the Commission makes recommendations for fisheries management and for next year's catches. At several annual meetings in Brussels, the 27 EC ministers decide about fisheries management rules and also decide for each of the European stocks the catches that may be taken in the following year. Back at home, the ministries and their agencies administer the implementation of the decisions that they have taken in Brussels. They also control compliance by fishers. Such concentration of explorative, legislative and executive power within one ministry does not exactly resemble what we learned in school about the importance of separation of powers in a democratic system.

If this system was working in the interest of those who paid for it, fine. But clearly, it is not. The ICES Council has blocked inclusion of social sciences (including economics), effective public outreach, and anything resembling ICES taking a stand on behalf of European fish stocks. It also has limited ICES advisory outputs to what the ministers deem useful for their negotiations in Brussels. Enforcement of fisheries management by member states is lax, with cases where actual catches exceeded the agreed amount by more than 100%. Fisheries in Europe are subsidized to an amount that in some cases equals the value of the landed fish. Without these subsidies, European fisheries would be bankrupt, because the cost of hunting the few remaining fish exceed the income from selling the catch.

Why did the ministers not act in the interests of the citizens who have elected them and who pay their salaries? Because the ministers are under constant pressure by the fishing lobby and only under occasional, if any, pressure by the public, which is made to believe that fisheries management is decided by bureaucrats in Brussels. The degree to which the European fishing lobby has infiltrated the system is astounding. Although the economic contribution of the fishing sector is less than, e.g., that of the industry producing sewing-machines, their political influence is considerable, probably because the public still has romantic notions about fishing, and because the media are drawn to stories of fishers blocking ports or dumping fish in the streets of Brussels. The European Commission has set up Regional Advisory Councils (RACs) which, among other, give recommendations on how to implement the scientific advice given by ICES. In these RACs, the fishing lobby has 2/3 of the seats, with the remaining seats being shared by all other stakeholders. If no consensus is reached, then decisions on recommendations are taken by simple majority, such as held by the fishing lobby, while other stakeholders may submit their minority opinion. But the main influence of the fishing lobby is probably exercised through their cozy personal relationships with the civil servants in charge of national fisheries, many of whom firmly believe that it is their job to protect the rights of their national fishing sector, including the rights to obtain subsidies and to overfish.

The role of the European fishing lobbies is a particularly unpleasant one: In order to increase allowable catches, the lobby routinely discredits the scientists and their advice, denies the depleted status of stocks, fights the establishment of protected areas, defends the usage of destructive gears, insists on the right to catch juvenile fish, and requests the abandonment of closed spawning seasons and areas. In doing so, they destroyed the very foundation that fishing depends upon. As a result, profit margins of European fishers are about 3-6%, whereas

profit margins of their colleagues in New Zealand, which has successfully reformed its fisheries, are about 40%. Given the considerable influence of the European fishing lobby on the system, why do they not act in the interest of their fishers, whose profits could multiply in a few years if stocks were allowed to recover? The answer to this question eludes me.

Fisheries management in Europe culminates in the closed-door meetings of the Council of Ministers. While the public is excluded from this debate about a public resource, the fishing lobby is always only a cellphone away and often physically present in the building, being supplied with press cards by their national delegations. Decisions in the Council are typically taken by a 2/3 majority but need consensus if the Commission feels that its proposal has been ignored. That was recently the case in a preparatory meeting dealing with the threatened Atlantic bluefin tuna. The member states were unhappy with the proposal by the Commission which followed the scientific advice. They asked the Commission to leave the room, and then agreed unanimously with a few abstentions on much higher catches.

While the ministers may change every few years, their civil servant advisors with their cozy relationships to the fishing lobby stay on and oppose any true change. As a result of years of midnight micro-management, the CFP has accumulated over 600 regulations, many of which contradict each other. For example, regulated mesh sizes catch smaller fishes than the fishers are allowed to land. These fish are then dumped dead at sea. The setting of next year's catches has been described as political horse trading, with unholy alliances supporting each other in an effort to secure the highest possible share for the national fishing sector. Thus, Germany and Poland will support higher French catches in the Atlantic, and France will support higher catches in the Baltic. As a result of such coalitions, the cod and herring stocks in German waters are more strongly overfished than adjacent stocks. Since the proceedings of the meetings remain secret, the ministers can happily go home and wear blue ties at the next 'Save the Oceans' event, because clearly, they themselves fought hard for healthy oceans and ecosystem-based fisheries management, but others prevailed.

The situation described above is what Maria Damanaki was confronted with when, in 2010, she took over the post of Commissioner of DG Mare, the European Directorate General in charge of European fisheries. Building on the excellent Green Paper on the Reform of the Common Fisheries Policy of 2009, which officially documents much of what I have described above, she confronted the Council of Ministers with clear demands for rebuilding European fish stocks until 2015, in accordance with international agreements.

Her courage has shown some success: Europe is gradually abandoning the fishing at the edge of collapse, and ICES now provides at least one of the international reference points (F_{msy}) for 39 out of 190 commercial stocks. The number of stocks that are known to be on the slope to collapse has also slightly decreased. But will this be enough to overcome overfishing in Europe and in the rest of the World, where much of the European fleet is operating and where Europe plays a crucial role as the largest importer of seafood products?

The proposal of the Commission for the reform of the CFP will be officially published on 13 July this year. Considering the mess that we are still in, it proposes big steps in the right direction. The internationally agreed reference points will finally be recognized in Europe, allowing the stocks to grow away from the edge of collapse. Discarding of perfectly good fish for bureaucratic reasons will be phased out. But the proposal clearly falls short of similar reforms that have been enacted in New Zealand, Australia and the USA. These countries have precautionary fishing targets, slightly away from the reference points to account for uncertainty, and they close fisheries when stocks enter the slope to collapse. In contrast,

Europe will have no precautionary margins and will gradually reduce fishing pressure only when stocks are on the slope to collapse, with no default rule for closing a fishery. Where the other countries have phased out or drastically reduced subsidies, the Commission only proposes to reshuffle subsidies. Also, the root causes of the CFP failure will not be addressed, i.e., the concentration of power with the agriculture ministers and the excessive influence of the fishing lobby. Such restraint may not be surprising, because the Commission is well aware that these very ministers and their lobbies will decide the implementation of the proposal and the future of fish and fishing in Europe.

Do I have a final wish? Yes. Given the systemic failure of fisheries management as enacted by the ministries of agriculture, I wish Europe would leave them in charge of aquaculture, but give the management of wild fish to the ministers of environment. The Marine Strategy Framework Directive of 2008 shows that they have understood that only healthy ecosystems can support healthy fish stocks, which, in turn, can provide healthy profits from environmentally-friendly fisheries.

Supporting Literature

EC (2008) Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). Official Journal of the European Union. L 164/19. Retrieved from <http://www.ices.dk/projects/Directive.pdf>

EC (2009) Green Paper: Reform of the Common Fisheries Policy. EC, Brussels, Com 163. Retrieved from <http://ec.europa.eu/fisheries/reform/> in January 2010.

EC (2010) Communication from the Commission – Consultation on Fishing Opportunities for 2011. EC, Brussels, COM 241. Retrieved from <http://ec.europa.eu/fisheries> in January 2010.

EC (2011) Communication from the Commission concerning a consultation on Fishing Opportunities. COM(2011) 298 final, Brussels, 25.5.2011. Retrieved from http://ec.europa.eu/fisheries/partners/consultations/fishing_opportunities/consultation_document_en.pdf

Froese, R. and Proelß, A. (2010) Rebuilding stocks until 2015: will Europe meet the deadline? *Fish and Fisheries* 11:194-202

Froese, R., T.A. Branch, A. Proelß, M. Quaas, K. Sainsbury and C. Zimmermann. 2010. Generic harvest control rules for European fisheries. *Fish and Fisheries*: doi:10.1111/j.1467-2979.2010.00387.x