SOCIO-ECONOMIC EFFECTS OF MANAGEMENT MEASURES OF THE FUTURE CFP (SOCIOEC)

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The new basic regulation for the Common Fisheries Policy (CFP) is set to introduce reforms to the European fishing industry. The new regulation, which comes into force latest in 2014, will probably implement a fisheries management system that will strive to bring the economic realities of the sector back in line with society's long-term interest in healthy seas and thriving fish stocks. The challenge for the sector including managers and stakeholders from the environmental side is to interpret the overarching EU objectives in local and regional contexts. There is a need to translate EC requirements, consistent with the aims of the new CFP as well as the Marine Strategy Framework (MSFD) and other EU directives, so that they are understandable by the wider stakeholder community and engage their support.

SOCIOEC, Socio Economic effects of management measures of the future CFP, is a recently started Seventh Framework Programme (FP7) project that will deal with the socio-economic effects of the main management principles of the new CFP. The aim of the SOCIOEC project is to develop and analyze, in cooperation with stakeholders, a range of available management measures and tools that specifically aim to endow fishermen with the incentives to overcome the identified failings and thereby achieve the objectives of the future CFP. The project will (i) investigate how the objectives regarding ecological, economic and social sustainability can be defined in a clear, prioritised and overall acceptable manner, (ii) analyze which management measures and at what organization level create the right incentives to tackle the main structural failings mentioned in the Green Paper of the Reform of the CFP, (iii) determine the socio-economic and spatial effects of these management measures and, (iv) considering the points above, provide socio economic impact assessment of the range of management measures selected.

Overarching principles of the CFP

The EU-Commission published an analysis of the current basic regulation (EU 2371/2002) in 2009 and stated there are still great structural problems in the implementation of a sustainable exploitation of fish stocks. In general there is a broad agreement that a sustainable exploitation of resources has to be the central premise of future fisheries management (Shelton and Sinclair, 2008). Sustainability can be considered in terms of the three pillars of sustainability developed by the UN at the 2002 Johannesburg Summit and elaborated by the EU in terms of environmental, economic and social sustainability (Kate et al., 2005). Especially in fisheries the three dimensions of sustainability are intimately connected and, as long as the sustainability concept has strong ecological and ethical roots, without ignoring the necessities for exploitation, there is the need for a clear socio-economic approach, focusing the sustainable debate within a socio-economic context.

One of the main research activities of the SOCIOEC project will be to develop a series of broad, generic objectives that encompass the three sustainability dimensions and focus on their application in any future revision of the CFP. This will be done through a literature review including both conceptual studies and real-world experiences and an appraisal of how the sustainability objectives were addressed in the past. This will be focused on the CFP its failures, successes, and their raison d'être where possible. From a research perspective, the analysis of objectives considered by SOCIOEC will include examples covering a wide range of management approaches discussed in the project, as technical measures (e.g. closed areas and seasons), command and control instruments (e.g. TACs, effort and quota management), market instruments (e.g. transferability of

collective or individual rights), structural programme instruments and social instruments (e.g self- and co-management possibilities). With clearer objectives on the regional as well as the broader EU level, SOCIOEC will then interpret these objectives in the context of individual case study fisheries, and present second level objectives that are consistent with those on the EU and regional level, and appropriate for the fishery in question. In a first workshop the overarching objectives were discussed and a short list for the discussion in the regional context in the Case Studies agreed (Doering & Goti 2012). Part of this list is the objective to fish stocks on a level that produces the Maximum Sustainable Yield (MSY) and the economic objective to optimise gross value added (what fisheries deliver to society as a whole).

Incentives of existing and future management measures

There is a general understanding that the structural failures of the current fisheries policy have to do with wrong incentives leading to fishers' behavioural responses which conflict with the aim of the CFP (encouraging sustainable exploitation of natural resources) and that stakeholder influence and involvement on a regional basis is not strong. The concept of sustainable development in a social context includes concepts such as employment, food security and worker safety among other, but can also include a cultural dimension. This can comprise the issues of ethical orientation and action-leading values, lifestyle debates, cultural diversity, traditional knowledge and skills, local and regional space of reasoning and acting, gender issues, etc. (Stoltenberg, 2010). So, the social and the cultural context can also play a crucial role in informing fisheries management. This is particularly the case with coastal, small-scale fisheries, in which locally rooted knowledge and traditional skills are still maintained and passed on, and the concept of sustainability management might still interact with traditional values that we seek to maintain.

Within the SOCIOEC project, the cultural and social dimensions for the local community will be examined. The incentive structure and associated behavioural responses of fishers will be analysed using several methods within the case study research design. Each case study follows the same line of thinking in order to be able to make generalizations that will serve for the management toolbox afterwards. Overall four methods will be used to assess the incentive structures behind fisheries management measures in a way that adapts to the qualitative differences of the targeted populations and also to the available resources for data collection and contact stakeholder. The first method is the collection and evaluation of existing literature in the area, specifically related to incentives. The second basic method will consist of conducting interviews with fishers, complemented with interviews with people surrounding fishers who possibly influence fishers' decisions. (Bennett and Adamowicz, 2001; Hynes et al., 2008). The third method will investigate the impact of various forms of rights-based management (RBM) on short-term fleet dynamics, building discrete-choice models (Random Utility Models, RUM) widely used in fisheries literature (Holland and Suttinen, 1999), to evaluate the impact of closed areas (Hutton et al., 2004; Vermard et al., 2008), and also of Individual Transferable Quota (ITQs) (Marchal et al., 2009). Finally, the fourth method employed is a game table approach; "ecoOcean" (Schmidt, 2012), a graphical interface presenting a cellular based projection of an ocean with fish stocks, where up to four players/users (stakeholders) can navigate their vessels and trawls. This will allow the researchers to observe behaviour in a different context than a one-to-one interview.

Improved governance and improvement in self- and co- management

The CFP as it is now remains basically a top-down hierarchical system with the Fisheries Council adopting the basic regulation, which is then implemented and enforced primarily by the Member States under the auspices of the Commission. From the management point of view the European Commission makes a number of important suggestions regarding the future decentralisation of the CFP as well as the introduction of management structures that encourage the industry to take great responsibility for the implementation of the CFP. In particular the Commission believes that decentralization which gives fisher and fishers' representatives a stronger voice in the policy decision-making process has the potential to engender a culture of greater compliance with the regulatory requirements underpinning the policy.

Decentralized fisheries management systems already exist at a local or regional level in several EU member states which go well beyond mere consultation structures. SOCIOEC seeks the analysis of such examples on the case study level while also reviewing the CFP in the context of the overall Maritime Policy, and look at the possibility of taking the CFP from the current "government consultation of stakeholders" to true "partnership between government and stakeholders" in management.

Impact assessment – methodological improvements

The impacts of the new (proposed) management measures will be measured based on a set of indicators (social, economic and ecological) that will be defined in relation to specific objectives set and defined according to the overarching principles of the CFP and its implementation at regional/local level. One technique of analysis that the project will use to take into account stakeholders opinion is the *focus group* (Morgan, 1988; Krueger, 1998), a social science technique, which will be used with different objectives: (i) to identify, in a general framework, all the potential social, economic and ecological effects of the proposed new policy options using a scenario approach, (ii) to identify the most important social, economic and ecological potential effects and assign to them a probability and a magnitude with the help of the relevant actors and, (iii) to discuss and draw some conclusions about non quantifiable impacts (mainly relating to social aspects) and finally, (iv) to discuss inputs and results to/from the quantitative simulation phase in a participatory modelling approach constituted by cyclic feedback loop process. The above qualitative analysis will be integrated with quantitative analyses to infer on the ecological and socio-economic impacts. The aim of the quantitative analysis will be to develop projections based on the scenarios defined by each case study. SOCIOEC will use a range of existing bio-economic models to evaluate, through stochastic simulations, the future impact on the natural resources and human benefit of current and alternative management measures, options and strategies based on the different indicators and descriptions.

Conclusion

The EU FP7 project SOCIOEC is the only fisheries project at the moment with a clear socio-economic focus. The project addresses the following main research questions: overall objectives of the CFP, incentive structure of management measures, better governance and integration of stakeholders and improvement of methods for socio-economic impact assessment. The specificity of the project lies on its framework of analysis (objectives-incentives-governance-impact) and the possibility to pretest it in an integrated way with a set of case studies that at the same time approach the main issues in the coming CFP and are designed to be compatible with the latest developments in the current CFP.

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