MARITIME FORUM

Study 2008-11 lot 3: Study on the remuneration of spawning stock biomass

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Establishing an analytical approach to estimate potential resource rents for different types of EU fisheries. Comparison of the current and potential resource rents for the selected fleets.

Why this study?

Historically a major objective of fisheries plans and strategies has been to maximise the physical quantity of fish production. The pursuit of maximum sustainable fish production has tended to hide the fact that in economic terms the optimum level of exploitation may be at a lower level of physical production.

The determination of the resource rent (the extra value after all costs and normal returns have been accounted for) in a given fishery could therefore be particularly useful for impact assessments and for analysis of management strategies and management/recovery plans. It will in fact represent the opportunity cost of fishing (the real cost [2] of alternative utilities forgone [3]). It shall also indicate the level of resource rents that could be extracted by society, and so help cover parts of the management costs of EU fisheries.

Goals

Establishing an analytical approach to estimate resource rents for a range of EU fisheries and fleets under different management regimes. The analysed cases shall provide a good overview of EU fisheries. The study shall further assess the resource rents of the current fleet size (of the analysed case) and compare it to the potential rents in a situation where the fleet size has no overcapacity.

It shall give insight to how the successful generation and extraction of such rents can

offset the current costs of managing the fisheries and fleets being analysed, and how it can provide additional rents for society.

Results

The main conclusions of the study can be summarized as follows:

- There is not one single way to measure the benefits of fish stocks to the society. Higher production of food may not lead to the highest creation of income. And income (i.e. access to fish stock) allocated to one part of the fishing industry may be at the expense of another part.
- In a multi-species fishery, where a group of fleets exploit several fish stock concurrently, it is unlikely that all stocks can be exploited at their maximum potential level. Allowing one stock to grow implies that other stocks may be constrained, or even depleted.

- Instantaneous elimination of overcapacity does not lead to significantly higher benefits than its gradual elimination and continuation of the existing management regime, assuming it is fully implemented.
- The simulations confirm that unmanaged open access fisheries are not sustainable and produce low benefits to the society.
- In order to pursue optimum benefits from the fishery resources to the society, explicit political objectives need to be formulated allowing for a definition of a proper benchmark against which the benefits should be measured.

The present study simulates recovery of stocks and elimination of overcapacity) of seven EU fisheries, which represented in 2005-7 about 20% of the EU fisheries production. The main results are presented in terms of net profit which is interpreted as an indicator of the level and trend of the resource rent.

The seven fisheries generated in 2005-7 annually a net profit of 212 mln euro with about 7,400 vessels. In the baseline scenario the total nominal net profit of these fisheries increases to 1 bln euro by year 15, while the fleet would be reduced to 5,700 vessels. Consequently, the net profit/vessel would increase by 520%.

Despite the significant costs of such adaptation the total annual average net present value of the net profit over the 15 years would be almost 500 mln euro, 130% more than the average profits of 2005-7. The average discounted net profit per vessel over the 15 years would be 200% higher than in 2005-7.

Taking into account the assumptions made, the scenarios show that overall major improvements of the economic performance in EU fisheries could be achieved. Evidently, significant differences between the different fisheries exist, which leads to different conclusions on potential for improvement as well as appropriateness of various management approaches. It cannot be concluded that more restrictive policies would in general lead to better economic results. The scenarios show structural changes in the fleet composition. This implies that promotion of economic efficiency and optimization of the fisheries contribution to the EU economy calls for creation of conditions within which the vessel operators will be able to adapt flexibly to the existing fishing opportunities within the long term sustainability constraint.

Reference

Full title: Study on the remuneration of spawning stock biomass

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Full report:
http://ec.europa.eu/fisheries/documentation/studies/remuneration_of_the_spawning_stock_biomass_en.pdf [4]
