

Study 2007-03 lot 6 Data analysis to support the development of a Baltic Salmon Action Plan

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The International Baltic Sea Fish Commission's Salmon Action Plan has since 1997 been in place to manage salmon in the Baltic Sea. With the EU membership of more Baltic States it was time to have a good look at the functioning of this Salmon Action Plan. With help of ICES in evaluating the effect of the Salmon Action Plan, options for a new management plan will be developed.

Why this study?

It is time to renew the Baltic Sea Salmon Action Plan which has been in operation since 1997. The study will look at the socio-economic effect of different biological management options that will be developed by ICES based on an evaluation of the current Salmon Action Plan. Based on the expected socio-economic effect analysis of the management options the study will advise which option is to be preferred.

Goals

- 1. Collect socio-economic data to analyse the effect of the existing Salmon Action Plan
- 2. Evaluate the socio-economic effect of the management options as developed by ICES
- 3. Use the EU Impacts Assessment format to write an impact assessment of the proposed measures
- 4. Present the results of the study during a stakeholder workshop in September 2008.

Results

Almost all data for the assessment come from Finland, Sweden, Denmark and Poland. These four countries caught about 90 % of the total Baltic salmon catch in 2007. Baltic salmon is commercially exploited in a mixed stock fishery. There is no single salmon stock to be harvested but several naturally reproducing wild salmon stocks whose natal rivers are located in the different Baltic Sea riparian countries. Recreational fishery is an important use of the resource. The Baltic salmon fishery system is very complex, consisting of distinct migratory salmon stocks and several user groups with conflicting interests.

The original aim was to evaluate socio-economic impacts of the different management options. ICES, however, did not provide different management options but a revised management objective for wild Baltic salmon stocks.

Bio-economic analysis enabled us to quantify the trade-offs associated with different management options. The results showed that reducing fishing effort in commercial fisheries leads to lower profits in commercial fisheries, higher level of protection for weak stocks, and greater abundance of salmon in rivers. The

proportional decrease in the total profits applies to all countries. However, only the countries with recreational fisheries stand to benefit from the effort reduction in commercial fishing. An increase of salmon in rivers will likely lead to an increase in the number of recreational fishermen, which probably will stimulate regional economy.

Improvements in the catch potential have been found to increase the recreational fishermen's willingness to pay for stock restoration programs and to increase the angling activity. However, even though the anglers appreciated the positive effects of reduction in the commercial salmon fishery for them, they did not support a complete ban on commercial fishery. Also the increase in recreational fishing activity would induce improved employment in river valleys, which anglers found important.

According to the sociological study the most preferable options among the stakeholders were the one where international TAC management covers both sea and rivers. In addition, because it not likely to reach a 75% smolt production treshold for all rivers even in long term, the objective of 50% production would be set for some rivers in this management option. Also the bio-economic study supports this type of management option, since in such a management plan less productive salmon rivers would not restrict bio-economically sound exploitation of more productive salmon stocks.

It is proposed that management objectives related to adult salmon returning to their native rivers should be considered instead, or together with, the management objectives based on juvenile salmon production. Regional or even river specific management options would be preferable over traditional TAC regulation since they would be better at taking into account the differences in the abilities of specific rivers to reach their biological management objectives.

Reference

Full title: Data analysis to support the development of a Baltic sea salmon action plan

Organisations: Finnish Game and Fisheries Research Institute, University of Helsinki, University of Oulu, Swedish Board of Fisheries (SBF), Technical University of Denmark (DTU Aqua), Sea Fisheries Institute (MIR), Imperial Consultants.

Full report:

http://ec.europa.eu/fisheries/documentation/studies/study_baltic_sea_salmon_action_plan/index_en.htm [1]

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