Non-Paper from the services of the European Commission

Effort Management in Zone VIIfg: An Ecosystem Approach

Background

The European Commission proposed in 2008 that a cod recovery plan should apply to the management of all cod stocks in European waters outside the Baltic Sea[1]. That regulation was adopted with the exclusion of cod stocks in the Celtic Sea (ICES Divisions VIIbce-k).

During 2009, further discussions took place but did not lead to a conclusion. This was due partly to the difficulties of some Member States with effort management issues targeted on effort reductions for cod alone and partly due to a lack of a quantified, scientific assessment of the state of the stock.

There were also differences among the relevant stakeholders concerning the appropriate management of mixed fisheries in the Celtic Sea. On account of this, no consensus opinion has yet been delivered by the NWWC to the Commission. The Commission is open to receiving stakeholder advice on this topic, but it is important that such advice is supported on a consensus basis.

The Commission offers this paper as an aid to discussion among stakeholders and welcomes opinion on this topic (either directly arising from this document or from other sources) that addresses conservation problems in this zone.

This paper introduces a new, regional, holistic and heuristic approach to managing demersal fisheries in ICES Division VIIfg.

State of demersal stocks with respect to effort management

In this section, recent advice from ICES as endorsed by STECF is summarised briefly. This covers the principal stocks caught in demersal fisheries in VIIfg.

Anglerfish VIIb-k and VIIIabd

The state of the stock is unknown, but ICES advises that effort should not be allowed to increase on the basis of precautionary considerations.

[1] Proposal for a Council Regulation amending Regulation (EC) No 423/2004 as regards the recovery of cod stocks and amending Regulation (EEC) No 2847/93. COM(2008) 162 final

Cod in VIIe-k

There is no analytic assessment, but there are causes for concern. The area of distribution has shrunk and recruitments have been poor in 2002, 2003 and 2004 and below average in 2005, 2006 and 2007. Catch rates (as lpue) declined from 1995 to 2000 and are at a low level. ICES advises that fishing effort an catches should be reduced, but ICES could not advise on the scale of the necessary reduction.

Northern Hake

In 2009 ICES advised that the stock was overfished and estimated that current fishing mortality was 0.24 while the fishing mortality rate consistent with maximum sustainable yield was in the range 0.10 to 0.18. This means that a long-term reduction in fishing mortality and effort of between 25% and 58% was considered necessary for fishing at an MSY (Maximum Sustainable Yield) level.

This advice is currently under revision by ICES on the basis of new assessment methodology.

Megrim in Divisions VIIb–k and VIIIa,b,d

ICES advised on the basis of exploitation boundaries in relation to precautionary considerations that there should be no increase in effort of fisheries that catch *L. whiffiagonis* in 2010.

Nephrops in Subarea VII, Celtic Sea (FU20-22)

ICES advises that the current fishery appears sustainable and recommends that *Nephrops* fisheries should not be allowed to increase relative to 2007. Specifically, ICES recommends that effort and landings should be constrained to recent levels.

Plaice in VIIfg

The stock is overfished. Current fishing mortality was estimated at 0.37 while the range corresponding to high yield and low risk is the range 0.14 to 0.30. In other words, a long-term reduction in fishing mortality and fishing effort between 19% and 62% would be needed in order to move to MSY fishing.

For 2010, ICES recommended a decrease in fishing mortality of 50% in order to bring the stock inside precautionary biomass limits.

Sole in VIIfg

The situation is very similar to that for plaice.

The stock is overfished. Current fishing mortality was estimated at 0.27 while the range corresponding to high yield and low risk is the range 0.12 to 0.25. A long-term reduction in fishing mortality and in fishing effort between 7% and 56% would be needed in order to move to MSY fishing.

This advice is summarised with respect to effort levels in the table below:

Species	Status	Effort implication
Anglerfish	Unknown	no increase
Cod	Unknown	decrease effort
Northern hake	Overfished	effort decrease by at least 25%
Megrim	Unknown	no increase
Nephrops	not stated	no increase
Plaice	Overfished	effort decrease by at least 19%
Sole	Overfished	effort decrease by at least 7%

Biological and Economic Objectives

It is clear that there is no room for increasing effort in the biological advice concerning any of the stocks fished in Zone VIIfg.

There would be deleterious effects to such increases:

- For stocks in unknown state, biological risk would increase and the precautionary approach would be transgressed.

- For overfished stocks, overall catches would decrease further, and the commitment to reach MSY by 2015 would also be transgressed.

- Economic efficiency would decrease, as more capital would be expended and more fuel would be burnt in order to catch less fish. This would put the viability of fishing enterprises at risk and put employment at risk.

- Discards and high-grading would increase, and juvenile and undersized fish would make up an increasing proportion of the catch.

In order to avoid such negative effects, it would be appropriate to prevent effort increases in this zone. The species listed above are caught principally in demersal fixed nets, demersal trawl and seine fisheries in various proportions.

Generally, fishing operations will catch many of the species concerned in different proportions according to gear type, season and location. Detailed management of fishing effort according to gear type, target species and by-catch composition is likely to prove burdensome and ineffective and also risks creating an undesirable obligation to discard.

It is better, therefore, to implement a global effort limitation on all types of demersal trawl and seine fishing gear. This should be on a Member-State level because of relative stability concerns.

Implementing Methods

Such an effort limitation could be introduced for 2011 as part of the "Fishing Opportunities" Regulation. The limitation would apply only to zones VIIfg and would have the following characteristics:

Gears affected would be demersal fixed nets, beam trawls, otter trawls and demersal seine nets. Given the potential importance of fisheries by under-10m vessels in exploiting the resources in this coastal area, the activity of these vessels should be included in the proposed conservation measures.

Pelagic fisheries catching sardine, mackerel, herring, sprat, blue whiting and argentines would not be included.

Consideration could be given to including fisheries targeting brown crab and lobster using pots and creels.

There would be no subdivision by gear-type nor would there be any accompanying rules concerning catch percentages.

VMS and Special Fishing Permits could be a useful tool for Member States to manage the effort management system.

The baselines for the limitation would be the effort (measured in KW-days) deployed by Member States in 2007. As there is scientific evidence of a need for effort reductions in all stocks where analytic advice is available, a 10% effort reduction with respect to the baselines would be appropriate. This would have little impact on fisheries for anglerfish and megrim, which take place in deeper water, outside zones VIIfg.

Heuristic Approach

The system should be introduced in response to an evident local need. Member States will be invited to inform the Commission of the results of implementations after the effort limitation has been in operation for one calendar year. Thereafter, a comprehensive review will be executed by the Commission after three years of operation and the system could be adapted as necessary based on the experience gained and according to updated perceptions of the state of the stocks.