



Effort regime for Mediterranean demersal fisheries
Report of the STECF 55th

Objective

Some of the outcomes of a dialogue between STECF and DGMare on Effort regime for Mediterranean demersal fisheries is briefly reported before the scientific conclusion of STECF

Additional information about the scientific methods and more details are available on the JRC website (Report PLEN-17-02)

The scientific output expressed in the Plenary meeting Report does not imply a policy position of the European Commission

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Effort regime for Mediterranean demersal fisheries

DG MARE is considering improving the fishing effort regime so far implemented, only through the national management plans (Article 19, MEDREG), in Mediterranean demersal fisheries.

The new effort regime would possibly set fishing opportunities (in terms of input controls) in accordance with the scientific advice of the relevant fisheries/metiers.

✓ The **effectiveness** of most of the measures implemented to actually reduce fishing pressure is **not demonstrated**, as fishing mortality has remained very high for most Mediterranean stocks.

Because measures linked with spatial management do not necessarily reduce the level of effort, but often simply displace it towards other areas.

✓ The **declared reductions in “overall fishing effort”** by reducing fleet capacity through decommissioning did not appear to produce an effective reduction in fishing pressure:

Because decommissioning schemes often first remove the oldest and least efficient vessels, some of them being no longer operating.

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[...] Implementing TACs and effort control in the Mediterranean remain challenging:

- ✓ available data are not reliable enough as fisheries information is often partial and imprecise and time series relatively short;
- ✓ difficulty to monitor and control the catches of the numerous fleets spread along the Sea;
- ✓ Demersal fisheries target species mixes often without clear dominant species;
- ✓ Landings occur over an extremely high number of ports and landing places and the fishery is dominated by the small scale fisheries whose catches are difficult to quantify

- ✓ Even when reliable formal assessments are carried out, the **relationship between fishing effort** (e.g. in fishing days) **with F_{MSY} is not linear** and is difficult to assess and predict;
- ✓ The **impact of each unit of effort** (one fishing day) on the target species differ [...] also between two fishers with the same type of vessel, and between two fishing trips of the same vessel.
- ✓ The **co-occurrence of many species** [...] in the exploited fish assemblages makes this further difficult: different species are impacted differently by the effort (catchability).

Effort regimes are in fisheries economics generally characterized as inefficient with an incentive structure leading to overcapitalisation (FAO 2016).

Limiting the time allowed to fish leads to an investment in equipment to catch more fish at the same amount of time.

From the total factor productivity point of view: input based management system can substitute regulated inputs (i.e vessel power) by unregulated ones (i.e. gear headrope length)

✓ the implementation of a management based on a fishing effort regime is difficult also because assessments on exploitation status are not available for many stocks.

✓ The success of an effort-based management for mixed-fisheries single-species objectives may not be reached if not considered the differences in the stocks dynamics.

A single effort limit applied to all fleets in a management area needs to ensure sustainability and high revenues, but may produce under-exploitation or over-exploitation of some stocks (Maravelias et al., 2012).

- Major difficulty: the poor monitoring and documentation of the actual effort levels of a large fraction of the fleet
- The definition of a sound effort management unit depends on a good definition of stock boundaries and good information on catch composition, which may be lacking
- Spatio-temporal measures aimed e.g. at the protection of juveniles or spawning aggregations may be useful but are not sufficient to reduce fishing mortality on adult populations.

The feasibility of effort management in the Mediterranean is a complex issue that cannot be fully addressed within the frame of a STECF plenary.

STECF encourages further dialogue with stakeholders, regional states and scientists regarding the potential efficiency of a diversity of management measures.



Thanks for your
attention!

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