

# STECF EXPERT WORKING GROUP EWG 16-02

**Multiannual plan for the European  
fisheries exploiting demersal  
stocks in the Western  
Mediterranean Sea**



**MEDAC**  
MEDITERRANEAN  
A D V I S O R Y  
C O U N C I L

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**The purpose of STECF request is to obtain the scientific grounds for the assessment of the biological, economic and social effects of a range of possible measures applicable in the context of a MAP for the European fisheries exploiting demersal stocks in the Western Mediterranean Sea**

# Management options

## Baseline

The first option is the **status quo** option or no policy change at EU level, i.e. the current national management plans, in combination with all other existing rules of the new CFP, would continue to apply.

To sum-up, **the scenario under the baseline would be:**

1. Current fishing mortality (i.e. average of the last 3 years) would remain constant;
2. Even though under this option the landing obligation would apply, we assume that the amount of discards of the species in Annex III of the MEDREG is unlikely to have impact.

# Management options

## OPTION 1

The current management tools, namely the national management plans, would be reviewed in order to integrate the objectives of the revised CFP "Basic Regulation"

To sum-up, **the scenario under Option 1 would be:**

1. Fishing mortality would be reduced for the fishing gears subject to a national management plan. However, fishing mortality would remain constant for those fishing gears not subject to national management plans (i.e. long lines, trammel nets and gill nets);
2. The target would be  $F_{msy}$ ;
3. We assume a 20% fishing capacity reduction in accordance with the IT, FR and ES Operational Programmes + additional measures adopted at national level;
4. As for the baseline, we assume that the amount of discards of the species in Annex III of the MEDREG is unlikely to have impact.

# Management options

## OPTION 2

EU fishing fleets targeting demersal stocks in the Western Mediterranean Sea are regulated by a single, integrated management framework (MAP)

To sum-up, **the scenario under Option 2 would be:**

1. Fishing mortality would be reduced for all fishing gears concerned by the exploitation of the target stocks;
2. The targets would be the lower and upper bounds of  $F_{msy}$ ;
3. We assume a 20% fishing capacity reduction in accordance with the IT, FR and ES Operational Programmes + additional measures adopted at national level (the same as Option 1);
4. As for the baseline, we assume that the amount of discards of the species in Annex III of the MEDREG is unlikely to have impact.
5. The three sub-options would pursue achieving  $F_{msy}$  by limiting access to fisheries through: (a) Capacity and effort; (b) Technical measures and (c) TAC and quota

# List of stock for the analysis

GSA	3A_code	Scientific name	Ref year	Fcurr	FMSY	Fcurr/FMSY	Report	Year of advice
1_7	HKE	<i>Merluccius merluccius</i>	2014	1.40	0.39	3.59	STECF 15_18	2015
9_11	HKE	<i>Merluccius merluccius</i>	2014	1.10	0.20	5.50	STECF 15_18	2015
1	ARA	<i>Aristeus antennatus</i>	2014	1.40	0.41	3.41	STECF 15_18	2015
1	ANK	<i>Lophius budegassa</i>	2013	0.25	0.16	1.56	STECF15_06	2014
1	MUT	<i>Mullus barbatus</i>	2013	1.31	0.27	4.85	STECF15_06	2014
1	DPS	<i>Parapenaeus longirostris</i>	2012	0.43	0.26	1.65	STECF13_22	2013
5	ARA	<i>Aristeus antennatus</i>	2013	0.42	0.24	1.75	SAC 17	2014
5	ANK	<i>Lophius budegassa</i>	2013	0.84	0.08	10.50	STECF15_06	2014
5	MUT	<i>Mullus barbatus</i>	2012	0.93	0.14	6.64	STECF14_08	2013
5	DPS	<i>Parapenaeus longirostris</i>	2012	0.77	0.62	1.24	STECF13_22	2013
6	ARA	<i>Aristeus antennatus</i>	2014	0.75	0.36	2.08	STECF 15_18	2015
6	ANK	<i>Lophius budegassa</i>	2013	0.91	0.14	6.50	STECF15_06	2014
6	MUT	<i>Mullus barbatus</i>	2013	1.47	0.45	3.27	STECF14_17	2014
6	DPS	<i>Parapenaeus longirostris</i>	2012	1.40	0.27	5.19	STECF13_22	2013
7	ANK	<i>Lophius budegassa</i>	2011	0.97	0.29	3.34	STECF12_19	2012
7	MUT	<i>Mullus barbatus</i>	2013	0.45	0.14	3.21	STECF14_17	2014
9	ARS	<i>Aristaeomorpha foliacea</i>	2014	0.13	0.51	0.25	STECF 15_18	2015
9	MUT	<i>Mullus barbatus</i>	2013	0.70	0.60	1.17	STECF14_17	2014
9	DPS	<i>Parapenaeus longirostris</i>	2013	0.69	0.71	0.97	STECF15_06	2014
10	ARS	<i>Aristaeomorpha foliacea</i>	2014	0.91	0.65	1.40	STECF 15_18	2015
10	MUT	<i>Mullus barbatus</i>	2013	0.50	0.50	1.00	SAC 17	2014
10	DPS	<i>Parapenaeus longirostris</i>	2013	1.60	0.92	1.70	SAC 17	2014
11	ARS	<i>Aristaeomorpha foliacea</i>	2014	0.50	0.31	1.61	STECF 15_18	2015
11	MUT	<i>Mullus barbatus</i>	2012	1.07	0.11	9.73	STECF14_08	2013

# ToR 1

**STECF-EWG 16-02 is requested to assess the likely biological and socio-economic benefits of implementing the management options**

**For each scenario, STECF-EWG 16-02 is requested to run the appropriate **forecast models** in order to describe the likely situation of the fisheries up to 2035 and using the indicators given below:**

- Fisheries indicators: catch, fishing mortality relative to  $F_{msy}$  ( $F/F_{msy}$ );**
- Biological indicators: abundance (SSB and total biomass), recruitment, and mean individual size;**
- Socio-economic indicators: GVA, salary and employment**

# ToR 2

**Discuss *pros* and *cons* of the geographical scope of the plan (GSAs 1,5,6,7,8,9,10,11) taking into account the distribution of the stocks, fleet dynamics and the economic link between areas.**



# ToR 3

**Among the stocks listed, provide an opinion on the stocks that can be considered as driving demersal fisheries in the Western Mediterranean Sea. The group should take account of the outcomes of STECF EWG 15-14 and EWG 16-04**

# ToR 4

**STECF-15-09** noted that, although in the long term catches are expected to recover, as a result of the increase in biomass, in the short term the benefits of rebuilding will not be immediate. Having said this, estimate the likely time required to find fishing fleets with the potential to get a positive economic performance.

# ToR 5

**Describe the quality of the data and the impact on the analysis. The methodology, assumptions, uncertainties and references should be also thoroughly detailed. The use of schemes is advisable.**

# Conclusions of the EWG 16-02

## ToR 1

### TAC approach

- TACs settings relies more on stock assessment than Effort, which may be a problem considering the instability of the stock assessments, due to short time series and data limitations
- The above situation ends up introducing instability approaching the target, showing a cycling behaviour
- On the other hand an output control system is not affected by hyperstability, which can be the largest effect preventing management success in an Effort system

**Projections after 2025 are too uncertain to be evaluated!**

# Conclusions of the EWG 16-02

## ToR 1

### Effort Management approach

- Effort management is affected by *hyperstability* (F high while effort decreases)
- Fishing @MSY will decrease catches in the short run (2020) and increase afterwards (2025)
- Fishing @MSY will increase the mean length of the stocks
- Changes in selection pattern due to (i) technical measures, (ii) the implementation of the landing obligation or (iii) differentiated effort management by fleet, will change the reference points

**In 2015, 75% of the stock studied are expected to have SSB levels above Bpa with a probability of 95%, if option 1 is implemented**

# Conclusions of the EWG 16-02

## ToR 1

- **Current reference points are based on F0.1 . In some cases values obtained for Fmsy are very low and others very high. The EWG suggests that a thorough revision should be carried out, and the reference updated if needed.**
- **Some fleets are moderately dependant on the stock considered, and simultaneously are large employers on the region. Such cases may require monitoring of social conditions to understand the extend of the impact of the MAP.**

# Conclusions of the EWG 16-02

## ToR 2

- **A MAP with a wider scope (as per W-Med) will limit the potential inconsistencies that may arise from having to make several regulations coherent.**
- **Regarding fleets MAPs that focus on more homogeneous regions like W-Med, may encourage buy-in by MS and regional/local bodies and establish a more homogeneous playing field.**

# Conclusions of the EWG 16-02

## ToR 3

The EWG identified a set of species which are driving the fisheries, but are not included in the list:

- *Aristomorpha foliacea* in GSA 7,9,11
- *Lophius spp* in GSA 10, 11

On the other hand, *Parapenaeus longirostris* in GSA 5,6 is included in the list, but it is NOT driving the fishery under the same criteria.



# Conclusions of the EWG 16-02

## ToR 4

It was not possible to compute the indicator requested in the ToRs. Nevertheless, a proxy indicator suggests that by 2020 there is high probability that the fleets' value per unit of effort will be larger than the 2015 levels.

# Conclusions of the EWG 16-02

## ToR 5

- **Inconsistencies between the 3 DB available to the group, stock assessments, Med DCF and the AER, prevented the EWG to carry out a mixed-fisheries analysis as well as compute the economic indicator GVA requested in the ToRs.**
- **A number of stock assessments were not available to the group due to (i) being carried out with VIT, which cannot be used to condition operating models, and (ii) not being provided by GFCM.**
- **Employment data at Med level limits the regional analysis. For ex. , the Italian information refers to both NW and NE Mediterranean**