

MEDAC WORKING DOCUMENT ON A MULTIANNUAL PLAN FOR THE FISHERIES EXPLOITING DEMERSAL STOCKS IN THE ADRIATIC SEA (GSAs 17-18)

Whereas

According to the Common Fisheries Policy (Regulation (EU) No 1380/2013), the objective of sustainable exploitation of marine biological resources is more effectively achieved through a multiannual approach to fisheries management, and hence multiannual plans (MAP) reflecting the specificities of different fisheries shall be adopted as a priority.

MAPs should, where possible, cover multiple stocks where those stocks are jointly exploited. The MAPs should establish the framework for the sustainable exploitation of stocks and for preserving marine ecosystems concerned, defining clear timeframes and safeguard mechanisms for unforeseen developments.

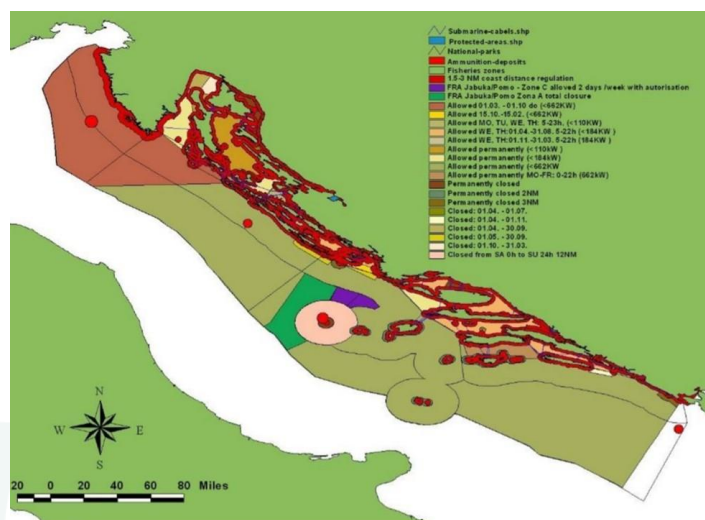
According to art.18 par. 2 of Reg. (EU) 1380/2013, Member States having a direct management interest affected by the measures referred to conservation, such as Multiannual Plans, shall also consult the relevant Advisory Councils. Therefore, MEDAC should play a key role in providing advice on conservation and management measures reflecting the views of its members from the fishing industry, scientists, NGOs, recreational fisheries and other stakeholders having interests in the area of application. Prior to including measures in a multiannual plan, account shall be taken of possible impacts of the plan under environmental, economic and social point of view based on best available data.

Some relevant opinion on MAP for demersal in Adriatic Sea has been already sent to the EU Director General Maritime Affairs and Fisheries and to the GFCM Chairperson by the MEDAC Letter on the Multiannual management plan for demersal resources in the Adriatic Sea (Ref. 163/2019) and the MEDAC Letter on socioeconomic indicators (Ref.164/2019) on 21 June 2019.

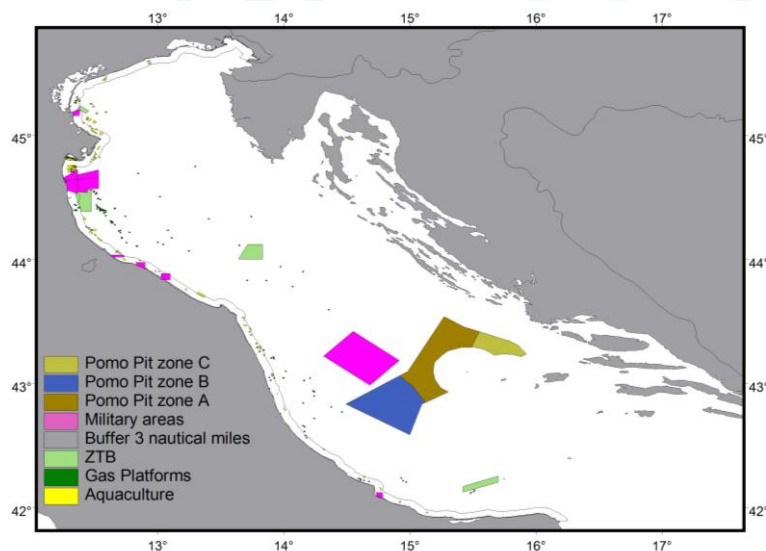
According to the Reg. (EU) 2019/1022 (par. 18-19 of the introduction) it is appropriate to establish the target fishing mortality (F) that corresponds to the overarching CFP objective (Art. 2.2) of reaching mortality rates that are BELOW F_{msy} as ranges of values which are LOWER than MSY (FMSY): those ranges, based on best available scientific advice, are necessary to provide the flexibility to take account of developments in scientific advice, to contribute to the implementation of the landing obligation and to take into account mixed fisheries.

1) Geographical scope of the plan

In the Adriatic Sea, there are already several spatial constraints and restrictions (these include military sites, marine protected areas and biological protection zones, offshore regasification facilities, oil platforms) that reduce the free movement of the fishing fleet in the areas concerned (Ref. MEDAC Letter Ref. 163/2019 and see maps a and b). In the case of some ports or in the area around Trieste and the Slovenian coast these restrictions make the available space extremely limited and this is coupled with very shallow waters. More details on spatiotemporal restrictions are in the Annex 1.



Map a - Source Annex 5 of the STECF Report EWG 19-02, Spatio-temporal Restriction in Croatia¹



Map b – Spatial restrictions in the Italian side of the Adriatic Sea.

¹ Scientific, Technical and Economic Committee for Fisheries (STECF) – Multiannual Plan for the fisheries exploiting demersal stocks in the Adriatic Sea (STECF-19-02). Publications Office of the European Union, Luxembourg, 2019

Deep concern was expressed by the majority of MedAC members that in the forthcoming formulation of a MAP for demersal resources in the Adriatic, the same approach used for the equivalent Plan in the Western Mediterranean would be applied, without considering the unique geomorphological characteristics of the Adriatic basin that would make the same restrictions completely unfeasible. Other members support the introduction of spatial measures, particularly to protect Essential Fish Habitats and sensitive habitats.

2) Stocks and gears

In the table below are reported the most updated results of STECF and GFCM on the status of the demersal stocks assessed in the Adriatic Sea and the main gears targeting those species. All commercially exploited demersal stocks should be considered, including target and bycatch species, together with the concerned fisheries and gears. Moreover, coastal demersal stocks should be included, as well as the impacts from Small Scale and Recreational fisheries.



Species	GSA	Fishery	Spawning Biomass	Stock	F (Fishing mortality)	Diagnosis	Advice and recommendation
Red mullet , <i>Mullus barbatus</i>	17-18	Bottom Trawl Nets; small amounts gill nets and trammel nets	Increasing from 2011	from	Decreasing, now slightly higher than reference point	In overexploitation with relatively high biomass	Reduce $F_{current}$ towards $F_{0.1}$ 2017 - $F_{current}/F_{0.1} = 1,17$
Deep-water rose shrimp , <i>Parapenaeus longirostris</i>	17-18-19	Bottom Trawl Nets	Increasing (max value in 2017)		Decreasing	Unstable results in the last years - Possibly in overexploitation, with relatively high biomass	Precautionary advice – Reduce fishing mortality 2017 - $F_{current}/F_{0.1} = 2,85$
Caramote prawn , <i>Penaeus kerathurus</i>	17	Bottom Trawl Nets, Rapido trawl nets; gill nets and trammel nets	Stock biomass increasing above MSY		Increasing	In overexploitation, with relatively low biomass	Progressive reduction of fishing effort 2017 - $F_{current}/F_{msy} = 2,1$
Mantis shrimp , <i>Squilla mantis</i>	17	Bottom Trawl Nets, gill nets, Rapido trawl nets				Intermediate overfishing, relative low biomass	Reduce $F_{current}$ towards $F_{0.1}$ 2017 - $F_{current}/F_{0.1} = 1,53$
Mantis shrimp , <i>Squilla mantis</i>	17-18	Bottom Trawl Nets, gill nets	Increasing		Decreasing	In overexploitation, with relatively high biomass	Reduce fishing mortality 2017 - $F_{current}/F_{0.1} = 2,60$
Norway lobster , <i>Nephrops norvegicus</i>	17-18	Bottom Trawl Nets; small amounts traps gill nets	Decreasing		Decreasing	In overexploitation	Reduce fishing mortality (2017 - $F_{current}/F_{msy} = 1,47$)
Common Cuttlefish , <i>Sepia officinalis</i>	17	Otter trawl, rapido trawl and set gears	Biomass in the last 4 years increased but is still below the B_{msy}		Decreasing	Sustainably exploited, with relatively low biomass	Do not increase Fishing mortality - Avoid any increase of catches to improve the status of the stock in term of biomass (2017 - $F_{current}/F_{msy} = 0,84$)
Hake (benchmark)	17-18		Biomass around 70% the precautionary biomass			In overexploitation and overexploited	$F_{current}/F_{msy} = 3,4$

As stated in the STECF EWG 19-02, values of dependency and contribution can be good indicators about how management measures will affect vessel groups in terms of their economy and what effect these will have on managed stocks. While some gears and segments have high dependency on only few species, they can have at the same time very low or negligible impact to overall landing of target species and vice versa.

FLEETS' CONTRIBUTION TO THE TOTAL LANDINGS (2014-2016 data)

- ✓ DTS (DEMERSAL TRAWL AND DEMERSAL SEINER) segments have the highest overall contribution to all species in the MAP, counting for more than 80% of landing per species:
 - 88% Norway lobster *Nephrops norvegicus*,
 - 95% Red mullet *Mullus barbatus*,
 - 81% Mantis shrimp *Squilla mantis*,
 - 88% Hake *Merluccius merluccius* and
 - 87% Deep-water rose shrimp, *Parapenaeus longirostris*.

- ✓ Common sole *Solea solea* dominated by Italian TBB (BEAM TRAWL) 18-24 m (29%) and PGP (POLYVALENT PASSIVE GEARS) 06 – 12 m (17%) segments.
- ✓ Mantis shrimp *Squilla mantis*: Italian DTS 12-18 m have the highest contribution (49%).
- ✓ Hake *Merluccius merluccius*: - dominantly represented in landings made by ITA DTS 12-18 m and 18-24 m covering 64% in total;
 - all other segments have individual contribution below 10%;
 - beside DTS segments only two HOK (GEARS USING HOOKS) segments have contribution over 1%.
- ✓ Norway lobster, *Nephrops norvegicus*: - Italian DTS segments (74%) has the largest contribution;
 - followed by the Croatian DTS segments with 18%.

ECONOMIC FLEET DEPENDENCY: Dependency is computed as the share in percentage of all MAP's stocks combined in the total value of each fleets' landing. Both Italian and Croatian DTS (DEMERSAL TRAWL AND DEMERSAL SEINER) segments have dependencies on the six key species of 45% or more:

- Fleet segments operating farther from the shore show larger dependency on Deep-water rose shrimp, Hake and Norway lobster;
- While ITA DTS 06-12 m and 12-18 m in GSA 17 dominantly depend on Mantis shrimp *Squilla mantis*.

Beside demersal trawl and demersal seiner segments, some other have high dependency on only one or two species depending on the area they operate:

- ITA TBB (Beam trawl) 24-40 m and 18-24 m with dependency of 44% and 49% on common sole;
- HRV FPO (Pots and traps) 06-12 m dominantly depend on norway lobster representing 39% of landing value;

- DFN (Drift nets and fixed nets) 12-18 m which depend on common sole (50%).

All OTB (Bottom trawl) vessels showed high dependency on hake, Norway lobster and Deep-water rose shrimp.

- **Gears that have highest dependency:**
 - **on hake** -> Set longlines (53% ITA 12-18 m in GSA 18, 32% HRV 06-12 m)
 - **on deep-water rose shrimp** -> Croatian Bottom trawl (21% 24-40 m -and 20% 18-24 m)
 - **on mantis shrimp** -> Italian pelagic trawl² (71% ITA 12-18 m) and bottom trawl (51% 06-12 m) in GSA 17
 - **on red mullet** -> 30% Croatian trolling lines 12-18 m and 24% Italian Bottom trawl 06-12 m in GSA 18
 - **on norway lobster** -> 38% Croatian Bottom Trawl 24 -40 m and 33% Croatian pots and traps 06-12
 - **on common sole** -> 81% Slovenian Drift Gillnets 0 – 6 m and 73% Italian Beam Trawl 6 – 12 m in GSA17, 60% Croatian Trammel Gillnets 0 – 6 m and others with dependency over 50% (Croatian and Slovenian Trammel nets and Gillnets)

It needs to be stressed that in some cases estimates at the gear level can be based on a small number of vessels.

² MEDAC note: likely it is a typo of the EWG19-02 Report: pelagic trawls normally don't catch mantis shrimp

3) Management options.

During the SRC-AS meeting, the following Potential fisheries management measures were proposed. **The existing (*in italics*) and potential fisheries management measures applicable to demersal fisheries in the Adriatic Sea** include:

Potential fisheries management measures	STECF Tested Scenarios ³ (EWG 19-02 on Management Strategy Evaluation for demersal species in the Adriatic Sea)	SAC technical comments ⁴ (21st Session of Scientific Advisory Committee – Appendix 6A)	MEDAC members contribution
Fishing effort regime	No scenarios based on fishing effort regime by fleet segment were conducted and the simulations were directly based on fishing mortality adjustments ⁵ : F _{msy} in 2024 or linear decrease or fix reduction (by 10% in 2020, 8% in 2021 and then to F _{msy} in 2024).	The linear reduction scenario tested had the best performance in terms of both recovery and reaching the target of MSY. This is particularly true for stocks that are highly overexploited and for which a significant and continued reduction (as highlighted by the results of the stock assessment) may be needed to reach agreed targets.	<p>WWF supports the linear reduction scenario as suggested by SAC report. In particular for <i>M. merluccius</i> and <i>N. norvegicus</i>.</p> <p>MEDREACT Fishing effort reduction should be based on 2019 effort level in order to be BELOW F_{msy} at the latest by 2024.</p> <p>MEDREACT, Croatian Trawlers Ass. and HOK It should be allocated proportionally to reduce the impact of the largest fishing fleets.</p> <p>MEDREACT Fishing effort reduction shall be based on a linear roadmap before the deadline. The experience of CFP shows that a “remote” deadline (2020) without intermediate roadmap does not work.</p>

³ “It is important to bear in mind that uncertainty is very large and, as such, these results should be taken as indicative only” (STECF EWG 19-02).

⁴ “Experts also noted that other additional scenarios could be identified in line with the procedure agreed by the SAC, and in support of the request made by the GFCM.”

⁵ “However, the relationship between nominal effort and fishing mortality is not necessarily linear and any effort reductions may not lead to proportional reductions in fishing mortality” (STECF EWG 19-02)

				<p>AGCI Agrital, Legacoop, Federcoopescas and Federpesca: The fishing effort regime is a valid management solution especially thought the fishing days. Nevertheless, the reduction must be compensated by socio-economic measures, also foreseen in the new EMFF in order to face the economical unsustainability (and the consequent loss of fishing enterprises and workers). The diversified and not linear reduction of the effort between MS is not acceptable, considering the same reasons of the principle of relative stability. Moreover</p> <p>Federpesca believes that a change of philosophy is necessary in order to identify and regulate the number of days in which is authorized to fish and not vice versa.</p>
<p>FRA to protect EFH (Essential Fish Habitat)</p>	<p><i>Jabuka/Pomo pit (Rec. GFCM 41/2017/3)</i></p>	<p>Assumed that the effects are already accounted for in the most recent stock assessment</p>	<p>The overexploitation status of all priority demersal species, with the exception of common cuttlefish (<i>Sepia officinalis</i>), was also highlighted. First results from the Jabuka/Pomo pit monitoring programme were presented, such as increased abundance and size of many priority species within the FRA.</p>	<p>MEDAC Ref. 163/2019 MEDAC acknowledged the results of the spatial measures that were implemented in the Jabuka pit.</p> <p>WWF, MEDREACT, Croatian Trawlers Ass., HOK, AGCI Agrital, Legacoop and Federcoopescas hope that, since all stakeholders recognized the positive impact of Jabuka Pit FRA on the status of the stocks, further FRAs will be established in GSA 17 and 18. WWF, AGCI Agrital, Legacoop, Federcoopescas and Federpesca suggest that any further FRA will be established according to the participatory process.</p>

				<p>MEDREACT: MEDAC opinion Ref 122/2019 (May 2019) supports adequate protection of vulnerable species and sensitive habitats and to further develop fisheries restricted areas and marine protected areas ensuring an effective protection of at least 10% of the Mediterranean Sea by 2020</p>
	<p>Sole Sanctuary: Assessment of the spatial measures were only carried out for the stock of sole</p>	<p>Regarding common sole, the most effective spatial measures to reduce F among the ones tested is the combination of the 6nm closure with the effort reduction.</p>	<p>WWF, MEDREACT, Croatian Trawlers Ass. and HOK strongly suggest the establishment of the Sole Sanctuary according to the process developed when Jabuka Pit FRA was established, i.e. through participatory/bottom up approaches with all stakeholders (Administrations, NGOs, researchers, fishers).</p> <p>MEDREACT supports the 6nm closure with effort reduction.</p> <p>AGCI Agrital, Legacoop, Federcoopesca and Federpesca: Sole Sanctuary is not necessary because the species showed large fluctuations in the quantity caught in the years. The forthcoming management measures for demersals will allow to calibrate further specific restrictions for common sole.</p>	
Others?	<p>Not tested in STECF EWG 19-02. Not even tested for Norway lobster and European hake (as in the</p>	<p>The Scientific Advice Committee highlighted the importance of</p>	<p>MEDAC Ref. 163/2019 The average depth of the Adriatic basin is 252 m, however in the Northern part (GSA17) it rarely exceeds 100 m and there</p>	

		ToR 4 of STECF EWG 19-02 was initially requested)	identifying and implementing additional FRAs	<p>are already several spatial constraints and restrictions. MEDAC supports the establishment of a FRA in the South Adriatic (Bari Canyon FRA). WWF, Croatian Trawlers Ass., HOK and AGCI Agrital, Legacoop, Federcoopescas and Federpesca support the identification and implementation (with the full involvement of stakeholders) of additional FRAs as a tool to reduce fishing mortality based on scientific results.</p> <p>AGCI Agrital, Legacoop, Federcoopescas and Federpesca recommend the need of socio-economic support for the enterprises impacted by the restrictions.</p>
<i>Depth restrictions</i>		No		<p>MEDAC Ref. 163/2019 The average depth of the Adriatic basin is 252 m, however in the Northern part (GSA17) it rarely exceeds 100 m and there are already several spatial constraints and restrictions.</p> <p>WWF Nevertheless inshore trawling along Italian coasts should be strongly limited, both for demersal species and small pelagics (beam trawls are able to catch also small pelagic juveniles within the Po river front).</p> <p>MEDREACT, Croatian Trawlers and HOK Additional depth restriction should be</p>

				<p>considered, in order to protect EFH in coastal waters and in deep water such as a closure to trawling below 500 meters depths.</p> <p>AGCI Agrital, Legacoop, Federcoopesca and Federpesca absolutely disagree with depth restrictions, while they confirm the already existent limitation foreseen in the art. 13 of Med Regulation (to 50 m depth) and the ban over 1000 m depth.</p>
Other spatial restrictions	<i>Distance from the coast</i>	Tested. The 6nm closure combined with effort reductions seems to amplify F reductions and improve SSB levels	<p>Closure of the 6nm mile strip to trawling in the western GSA17, Not applicable in the Eastern Adriatic Sea. [...] Regarding common sole, the most effective spatial measures to reduce F among the ones tested is the combination of the 6nm closure with the effort reduction.</p>	<p>WWF recommends taking into account recommendations of EU-funded sub regional projects (i.e. MANTIS) to identify suitable areas where management scenarios have been tested by scientists to improve species and habitat protection.</p> <p>WWF and MEDREACT Support the 6nm closure to towed gear combined with effort reduction</p> <p>Birdlife Spatial restrictions should take breeding, foraging, migration and wintering cycles of protected seabird species into account.</p> <p>AGCI Agrital, Legacoop, Federcoopesca and Federpesca don't fully disagree with the 6 nm closure, especially considering the objective of the modulation of effort reduction in terms of fishing days. However, the closure should be adapted according to the local marine</p>

				morphology and it should include the vessels over 15 m LOA.
	Others?			
Temporal closures	Authorized number of fishing days	No scenarios based on fishing effort regime by fleet segment were conducted and the simulations were directly based on fishing mortality adjustments ⁶ : Fmsy in 2024 or linear decrease or fix reduction (by 10% in 2020, 8% in 2021 and then to Fmsy in 2024)	The linear reduction scenario tested had the best performance in terms of both recovery and reaching the target of MSY. This is particularly true for stocks that are highly overexploited and for which a significant and continued reduction (as highlighted by the results of the stock assessment) may be needed to reach agreed targets.	<p>WWF recommends considering recommendations of EU-funded sub regional projects (i.e. MANTIS) to identify suitable areas where management scenarios have been tested by scientists to improve species and habitat protection. WWF Supports the 6nm closure to towed gear combined with effort reduction</p> <p>MEDREACT supports the SAC technical result</p> <p>Birdlife Spatial restrictions should take breeding, foraging, migration and wintering cycles of protected seabird species into account.</p> <p>Federpesca: The limitation of fishing days is acceptable if shared with the other countries facing the Adriatic and if supported by socio-economic measures for supplementing incomes (EMFF compensations).</p>
	Temporal closures			
Gear restrictions	<i>Authorized/prohibited gear types</i>	Not tested in the STECF EWG 19-02		WWF suggests taking into consideration the results of Minouw project (grids, lights, guarding nets) adopted on a temporal base or included as
	Gear characteristics including <i>mesh size</i>	Not tested in the STECF EWG 19-02		

⁶ “However, the relationship between nominal effort and fishing mortality is not necessarily linear and any effort reductions may not lead to proportional reductions in fishing mortality” (STECF EWG 19-02)

				<p>management measures to allow fisheries in FRAs buffer zones.</p> <p>MEDREACT: A precautionary moratorium on rapido trawlers should be considered</p> <p>Birdlife: For longliners, which are the main potential threat, the following measures should be considered in the first instance: tori lines, changes to line weights, hook shielding, and night-setting</p> <p>Croatian Trawlers Association and HOK support the enforcement of the already existing regulations on mesh size.</p>
Management of the fleet capacity	Fleet registry	No scenarios based on fishing effort regime by fleet segment were conducted and the simulations were directly based on fishing mortality adjustments ²	The Scientific Advice Committee highlighted the importance of ensuring fishing capacity is not increased [...] The linear reduction scenario tested had the best performance in terms of both recovery and reaching the target of MSY.	<p>MEDAC Ref. 163/2019 MEDAC pointed out that for each alternative management measure fleet capacity should also be taken into account, to make sure the number of vessels that would be sustainable after the implementation of a given measure is known.</p> <p>WWF, Croatian Trawlers Association, HOK, AGCI Agrital, Legacoop and Federcoopesca agree with the technical results of SAC</p> <p>Croatian Trawlers Association, HOK, AGCI Agrital, Legacoop and Federcoopesca support the fund provision for scrapping.</p> <p>Federpesca reiterates the need to always use updated data to 2018 (post scrapping)</p>
	Number of vessels/fleet capacity			

				<p>MEDREACT Supports the introduction of an authorized list of vessels. Fishing vessels with repeated infringement records should be banned from the area. Provisions on transfer of fishing rights (when a fisherman stops fishing) must also be included in the MAP.</p>
<p><i>Minimum conservation reference size</i></p>		<p>Not tested in the STECF EWG 19-02</p>	<p>The Scientific Advice Committee highlighted the importance of enforcing minimum landing sizes.</p>	<p>WWF recommends adding MCRS for the species listed in the table “Stocks and gears”. In particular those missing from the EU Reg. 1967/06 (<i>P.kerathurus</i>, <i>Squilla mantis</i>, <i>Sepia officinalis</i>)</p> <p>Croatian Trawlers Association, HOK, MEDREACT and Federpesca: MCRS should be based on best scientific advice.</p> <p>AGCI Agrital, Legacoop and Federcoopesca disagree with the revision of MCRS.</p>
<p>Control measures</p>	<p>VMS and electronic logbook</p>			<p>WWF, MEDREACT, Croatian Trawlers Association and HOK: All fishing vessels must have VMS and electronic logbook</p> <p>Birdlife recommends monitoring and reporting bycatch (seabirds included)</p> <p>AGCI Agrital, Legacoop, Federcoopesca and Federpesca: the electronic monitoring of trawlers should not require additional burden for the enterprises, and it should be based on the</p>

				<p>already existent technologies almost at zero costs. The electronic record of catches should be taken into consideration also for small vessels.</p> <p>Federpesca believes that the electronic monitoring should also be extended to vessels under 15 meters, possibly providing incentives for the purchase of equipment.</p>
	Pilot project for joint inspection schemes			<p>WWF and Federpesca Pilot project for joint inspection schemes should be identified both in Croatia and Italy, but also in Montenegro and Albania (within a GFCM data collection framework).</p> <p>Croatian Trawlers Association, HOK, MEDREACT, AGCI Agrital, Legacoop, Federcoopescas and Federpesca support joint inspection schemes.</p>

4) Other management recommendations

- To carry out a socio-economic analysis before the implementation of technical/management measures and to consult stakeholders in evaluating the socio-economic implications of the proposed measures in the Multiannual plan of demersals (MEDAC Ref. 164/2019).

MEDAC MEMBERS CONTRIBUTIONS:

MEDREACT - Any analysis should be based on best available data; pursuant to the definition of the precautionary principle (cf TFEU and others), the lack of scientific evidences should not be used as a pretext to delay recovery measures.





Annex 1

Source: Annex 5 of the Scientific, Technical and Economic Committee for Fisheries (STECF) – Multiannual Plan for the fisheries exploiting demersal stocks in the Adriatic Sea (STECF-19-02). Publications Office of the European Union, Luxembourg, 2019,

1) Slovenia

Slovenian fisheries sector is very affected by the limited size of marine fishing area. The existence of two sea fishery reserves where all fishing activities are banned (Portorož and Strunjan fishery reserves) further limit the reduced Slovenian fishing area. Moreover, there is an important industrial port in the Gulf of Koper.

Due to the safety and international rules, a common routing system and traffic separation scheme was established in the Northern Adriatic, which also has an important impact on fisheries. For all these reasons, mentioned above, Slovenia already has a derogation for Demersal trawlers, which allows fishing up to 1.5 nautical miles distance from the coast (Commission Implementing Regulation (EU) 2017/2383). Establishment of the closure of the coastal zone up to 6 nautical miles would further reduce Slovenian fishing area to a minimum not suitable to maintain commercial fishing activities.

2) Croatia



The most important regulation measures in Croatia are temporal and spatial trawl fishing restrictions (temporary or permanent prohibition in certain areas). This is a complex system created as a consequence of long-lasting evolution process in balancing exploitation levels with necessity for the protection of demersal resources.

Croatian fishing sea consists of two parts: inner fishing sea with an area of 12,461 km², encompassing inner sea from coastland to starting line, and outer sea consisting of territorial sea (area of 19,267 km²) and Protected environmental fishing zone – ZERP/PEFZ (area of about 25,000 km²). Inner fishing sea is divided into three fishing zones (E, F and G), territorial sea into four fishing zones (A, B, C and D) and PEFZ into four fishing zones (H, I, J and K). The maximum engine power of bottom trawlers is limited to 184 kW in inner fishing sea (except in certain parts of the Northern Adriatic channels, where the limit is 110 kW), while in the outer fishing sea it is limited to 662 kW.

Trawl fishing is permanently prohibited within 1.5 NM from mainland and island coast, 2 NM around outer islands (Palagruža, Galijula, Lastovo, Sušac, Svetac, Biševo and Brusnik and other smaller island in their vicinity) In the most part of northern Adriatic (western Istrian coast) and in some channel area of central Adriatic where depth is less than 50 m trawl fishery is prohibited 3 NM from mainland and island coast. In order to protect the juvenile stages of hake and Norway lobster trawl fishery is prohibited 3 NM around Blitvica and Jabuka islands. Trawl fishing is also prohibited in numerous bays and channels, e.g. Cres bay, Osor bay, Vinodol and Velebit channel, Novigrad sea, part of Zadar and Pašman channels, Kaštela bay, most part of the Split and Brač channels, part of the Hvar channel, part of the Neretva channel and part of the Koločep channel. In numerous parts of the fishing sea the trawl fishing is prohibited for certain part of the year or of the week.

Bottom trawl fishing in the most part of the channel area in central Adriatic is totally prohibited 6 months per year during spring summer period. In winter and autumn period, it is open for trawl fishery only two days per week (Wednesday and Thursday) during the day light, with engine power limitation (max 184 kW). The area of Rijeka bay is divided in half and trawl fishery prohibition is alternating every 6 months between halves. Trawl fishing is also prohibited on Saturday and Sunday 12 NM around Jabuka/Pomo island In order to protect recruits of hake and Norway lobster during the sensitive phase of life cycles, temporal trawl fishing ban of 30 days was introduced during September and October in fishing zones C, D, E, J and K. In addition, short-term emergency temporal fishery regulation measures are often set in power when it is needed (e.g. bottom trawl fishery ban of 6NM of island Blitvenica for protection of hake recruits during spring summer period). Furthermore, trawl fishing is prohibited above seagrass beds, coralligenous habitats and maerl. Any fishing activities are forbidden inside of 3 marine national parks (315 km²), disposal sites for explosives (266 km²) and in other sensitive areas (ornithological reservations, nature parks etc.). According to the existing regulations, trawl fishing is permanently prohibited in approximately 30% of the territorial sea of Croatia, with additional around 10% is prohibited between 100 and 300 days annually. It should also be emphasized that, considering technical characteristics of vessels and geomorphological configuration of the bottom of the Adriatic Sea, trawl fishing in Croatia is dominantly performed up to 350 – 400 m depths.



3) Italy

The Italian Ministry of Agricultural, Food, Forestry and Tourism Policies (MIPAAFT) regulates the temporary closure of fishing activities for bottom (OTB and TBB) and pelagic trawlers in the Adriatic Sea (August-July). Since 2012 such Regulation also includes temporary spatial restrictions: 1) vessels enabled to coastal fishery (15 m cannot operate inside the 6 nm from the beginning of the temporary closure until 31th October. These regulations exclude the Maritime Departments of Monfalcone and Trieste because, due to the peculiar geomorphology of the northern Adriatic, the fishing grounds of such Maritime Departments have a limited spatial extension. EWG 19-02 has focused on Italy GSA17, where a temporary fishing ban inside the 6 nautical miles has been enforced since 2012. In 2017, the Italian fleet operating in the GSA17 included 259 vessels having LOA < 15 m belonging to the category DTS (251 OTB and 8 TBB) and 361 vessels having LOA > 15 m and belonging to the category DTS (313 OTB and 48 TBB).



