

6.6 Assessment of a Joint Recommendation concerning technical measures for the conservation of fishery resources of the North Sea ("plaice box")

Background provided by the Commission

The new Technical Measures Regulation (Regulation (EU) 2019/1241) introduces the possibility for regional Member State groups to amend certain regional baseline selectivity standards on the basis of the joint recommendations (JR), based on which the Commission is empowered to implement delegated acts. This permits the tailoring of detailed and technical rules so as to take into account regional specificities. The alternative measures should as a minimum lead to such benefits for the conservation of marine biological resources that are at least equivalent to the ones provided by the baseline standards, in particular in terms of exploitation patterns and the level of protection provided for sensitive species and habitats.

For many years, the so-called "plaice box" has restricted fishing to protect undersized plaice for certain vessels in certain parts of the North Sea. This measure was initially set out in the former regulation on technical measures (EC) 850/98, which was superseded by the new Technical Measures Regulation (EU) 2019/1241, which sets out the measures concerning the plaice box in Annex V, Part C, point 2. In transferring the measures, changes were made regarding the substance of the provisions, so that the current rules no longer reflect what was previously set out in (EC) 850/98. The JR therefore asks the Commission to amend the provisions in order to better reflect the previous status quo.

In particular, Member States ask to reintroduce an exemption for vessels whose engine power exceeds 221 kW using Danish seines, provided that such vessels comply with the mesh sizes referred to in Annex V, Part B, point 1.1. Under Regulation (EC) 850/98, vessels above 221 kW using Danish seine were allowed to fish in the Plaice Box, without additional requirements concerning catch composition. Member States reason that the engine power using Danish seine does not have an impact on the fishing operation, that the biological circumstances in the Plaice Box have not changed, and that plaice is biologically in a very good state.

Secondly, the current Technical Measures Regulation Annex V, Part C, point 2.2 (c) allows certain vessels using bottom trawls to fish in the plaice box under certain conditions. Member States request changing this exemption to refer to "bottom otter trawls".

Finally, the current Technical Measures Regulation requires vessels permitted to fish in the plaice box under an exemption to be included in a list to be provided to the Commission. Member States ask to return to rules under the previous regulation, which explicitly stated that the length of beam trawlers newly included in the list shall not exceed 24 metres.

Therefore the STECF is asked to analyse the effects of the attached Joint Recommendation on the ecosystem, paying special attention to consistency with the provisions of Article 15(4) (5) and (6) of the Technical Measures Regulation and achieving the objectives and targets set out in Articles 3 and 4 of the Technical Measures Regulation.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2003>

Request to the STECF

STECF is requested to evaluate the scientific information supporting the joint recommendation on the plaice box in the North Sea, paying particular attention to Article 15(4) (5) and (6) of the Technical Measures Regulation. STECF should assess to what extent the joint recommendation helps at achieving the objectives and targets set out in Articles 3 and 4 of the Technical Measures Regulation.

In particular, STECF is requested to assess:

- Whether, based on the information provided with the JR, the reintroduction of the specific exemption for Danish seine as set out under the old technical measures regulation (EC) 850/98 would ensure levels of protection that are at least equivalent to what is currently in force;
- Whether changing the provisions under Annex V, Part C, point 2.2 (c) to refer to "bottom otter trawls" instead of "bottom trawls" would ensure levels of protection that are at least equivalent to what is currently in force;
- Whether introducing a provision under Annex V, Part C, point 2.4, limiting the length of beam trawlers newly included in the list to a maximum of 24 metres would ensure levels of protection that are at least equivalent to what is currently in force;
- If the STECF assessment of any of the questions above is inconclusive based on the evidence provided, STECF should set out why it cannot come to a definitive answer and detail what additional information or data would be needed to assess the joint recommendation further, specifically to conclude that equivalent levels of protection will be maintained between any new measures and those currently in force.

Documents provided by the Commission and reviewed by STECF

The documents provided and reviewed by STECF consisted of the following:

- A Joint Recommendation submitted by the Scheveningen Group concerning technical measures for the conservation of fishery resources in the North Sea, which focused on changes to the Plaice Box contained in Annex V Part C point 2 of Regulation (EU) 2019/1241.
- Supporting information regarding the request for a refined definition of the gear types and vessel length of beam trawlers allowed inside the Plaice box.
 - Annex I – Description - Danish Seine and the environment
 - Annex III - Miljøskånsomhed og økologisk bæredygtighed i dansk fiskeri, Gislason et al. DTU Aqua report nr.279-2014
 - Annex III - Courtesy translation of relevant parts of the report Miljøskånsomhed
 - Annex IV – Dinesen, G., Rathje, I.W., Hojrup, M., Bastardie, F., Larsen, F., Kirk Sorensen, T., Hoffmann, E., Eigaard, O.R. 2018. Individual transferable quotas, does one size fit all? Sustainability analysis of an alternative model for quota allocation in a small-scale coastal fishery. Marine Policy 88: 23-31.
 - Beare, D., Rijnsdorp, A., Blaesberg, M., Damm, U., Egekvist, J., Fock, H., Kloppmann, M., Rökmann, C., Schroeder, A., Schulze, T., Tulp, I., Ulrich, C., van Hal, R., van Kooten, T. and Verweij, M. 2013. Evaluating the effect of fishery closures: Lessons learnt from the Plaice Box, Beare et al. Journal of Sea Research 84: 49-60.

STECF comments

The "Plaice Box" is a closed area in the North Sea, established in 1989 as a technical measure to protect undersized plaice (*Pleuronectes platessa*) and reduce discarding. The measure introduced under Regulation (EC) 850/98, restricted access of trawl, beam trawl and seine net vessels >221kW, with the aim that yields, and the spawning stock biomass of plaice would increase. An amendment to the Regulation in 1999 provided an exemption for Danish seine vessels with engine power >221kW, provided that the mesh size used was at least 100 mm. No requirements on catch composition were included.

Regulation (EC) 850/98 was repealed by Regulation (EU) 2019/1241. Annex V Part C point 2.1 ("Plaice box states that the following vessels are permitted to fish in the area referred to in

(a) vessels whose engine power does not exceed 221 kW using bottom trawls or Danish seines;

(b) paired vessels whose combined engine power does not exceed 221 kW at any time using bottom pair trawls;

(c) **vessels whose engine power exceeds 221 kW** shall be permitted to use **bottom trawls** or **Danish seine**, and paired vessels whose combined engine power exceeds 221 kW shall be permitted to use bottom pair trawls **provided that such vessels do not engage in directed fishing for plaice and sole and comply with the relevant mesh size rules contained in Part B of this Annex.**

The Scheveningen Group states that the provisions in Annex V differ from the provisions in Regulation (EC) 850/98 and create new restrictions that were not previously in place and creating a degree of ambiguity in relation to the vessels and gears exempted from the provisions of the Plaice Box.

Accordingly, under the provisions set out in art 15.2 of Regulation (EU) N°2019/1241, the Scheveningen Group has requested that the Commission adopt a delegated act to amend the provisions set out in Annex V, Part C, point 2 of Regulation (EU) N°2019/1241 and has submitted a Joint Recommendation to this effect. Specifically, they request that the following text be amended:

2.2. The following vessels are permitted to fish in the area referred to in point 2.1:

(a) vessels whose engine power does not exceed 221 kW using bottom trawls or Danish seines;

(b) paired vessels whose combined engine power does not exceed 221 kW at any time using bottom pair trawls;

(c) vessels whose engine power exceeds 221 kW shall be permitted to use bottom **otter** trawls ~~or Danish seine~~, and paired vessels whose combined engine power exceeds 221 kW shall be permitted to use bottom pair trawls provided that such vessels do not engage in directed fishing for plaice and sole and comply with the relevant mesh size rules contained in Part B of this Annex.

(d) vessels whose engine power exceeds 221 kW using Danish seines provided that such vessels comply with the mesh size referred to in point 1.1. of Part B of this Annex.;

They further request that the following text be amended:

2.4. Vessels permitted to fish in the area referred to in point 2.1 shall be included in a list to be provided to the Commission by each Member State. The total engine power of the vessels referred to in point 2.2(a) within the list shall not exceed the total engine power in evidence for each Member State at 1 January 1998. The permitted fishing vessels shall hold a fishing authorisation in accordance with Article 7 of Regulation (EC) No 1224/2009. **The length overall of beam trawlers newly included in the list shall not exceed 24 metres.**

STECF comments

Q1. Whether, based on the information provided with the JR, the reintroduction of the specific exemption for Danish seine as set out under Regulation (EC) 850/98 would ensure levels of protection that are at least equivalent to what is currently in force?

After clarification from DGMARE, STECF interpreted the first question as: Whether, based on the information provided with the JR, the reintroduction of the specific exemption for Danish seine would ensure levels of protection that are at least equivalent to what is currently in force in Regulation (EU) N°2019/1241.

STECF underlines that the wording "Danish seine" may be imprecise as it is sometimes used in a broad sense encompassing all types of seine nets excluding purse seines. To remove any potential ambiguity, it should be made clear that "Danish seine" here refers only to Danish "anchor seine" (gear code SDN) and not to "Scottish" or flyshooter/flydragger seines (gear code SSC).

STECF notes that a key element of the plaice box (after being established in 1989) was that larger beam trawlers with >221kW should no longer be allowed to fish in the area. Therefore, the total beam trawl effort directed at plaice and sole fell substantially and the area is now still mainly fished in by *Crangon* shrimp trawlers with engine power <221kW as well as to a minor extent by Danish gill netters (Beare et al. 2013).

STECF notes that the status of the North Sea plaice stock is very good. In its most recent advice ICES states that "*The spawning-stock biomass (SSB) is well above MSY Btrigger and has markedly increased since 2008, following a substantial reduction in fishing mortality (F) since 1999. Recruitment in 2019 is estimated to be the second highest in the time-series. Since 2009, fishing mortality has been estimated below FMSY.*"

STECF observes that information from FDI database shows that in 2019 Denmark had 122 vessels using anchor seine (SDN) and 28 vessels using Scottish seines (SSC). Total fishing days for the different seines were 2235 and 710 respectively.

STECF notes that in 2018- August 2019 three Danish vessels above 221 kW using Danish seines have fished in and around the 'Plaice Box'. The access for these vessels to the 'Plaice box' has been restricted since the entry into force of the new Technical measures Regulation from August 2019. Therefore, the fishing operations for these three Danish

vessels above 221 kW after August 2019 have taken place around the 'Plaice box'. The Scheveningen group states that ensuring the status quo compared to Regulation (EC) 850/98, as was the intention when introducing Regulation (EU) 2019/1241, would mean that these three vessels would again be allowed to fish inside the plaice box.

To evaluate whether the reintroduction of the specific exemption for Danish seine would ensure levels of protection that are at least equivalent to what is currently in force depends on the effects of these three Danish seiners on sensitive habitats and sensitive species.

Regarding the impact of Danish anchor seine on the sea bottom, STECF observes that the DTU Aqua report (Gislason et al, 2014) considers that the gears to have the greatest, immediate, degree of physical impact, are (i) mussel dredges and dredges for other shellfish. Then, in descending order, the fisheries using ii) beam trawl for plaice, iii) beam trawl for brown shrimp and bottom trawl for Norway lobster and mixed demersal fish for consumption; prawns; Norway pout; cod and plaice, (iv) Scottish seine for cod and haddock (SSC), (v) bottom trawls for sandeel, herring and sprat and **Danish seines for plaice and cod (SDN)**; (vi) Bottom-set gillnets, creels, pots and bottom-set longlines. The table below (Gislason et al, 2014) illustrates the low environmental impact of the Danish anchor seines fishing for plaice and cod in different Danish fisheries in comparison with other towed gears in the area.

Overview: environmental impact of different Danish fisheries. No of stars estimates impact. No effect = no stars. Big effect = 5 stars. - = no information available. Relative energy consumption is litres of gasoil used compared to landing value										
Gear (active)	Primary target species	Depth (m)	Bottom type	Relative energy consumption	Physical bottom impact	Impact on bottom fauna and flora	Bycatch of fish/shell fish	Bycatch of seabirds	Bycatch of cetaceans	Discard
Danish seine	Plaice and cod	>20 m	SAND	**	**	**	**			*
Scottish seine	Cod and haddock	>20 m	Sand/hard bottom	**	**	***	**			*
Bottom trawl	Cod and plaice	>20 m	Mixed	****	***	***	**			**
Beam trawl	Plaice	>20 m	SAND	-	****	****	***			****

STECF notes that the maximum penetration depth of Danish anchor seines has been estimated to be <2cm (Eigaard et al., 2016). Underwater recordings of the seine rope provided qualitative results indicating that interactions with the seabed are relatively minor in nature. (Noack et al., 2019).

Regarding the impact on sensitive species, STECF notes that Danish seine is also considered to have no impact on bycatches of seabirds and cetaceans and are size selectivity with limited discards (Gislason et al, 2014).

STECF concludes that considering the limited number of vessels concerned and the limited impact that Danish anchor seine has on the bottom, the reintroduction of the specific exemption for Danish seine is not expected to have any significant effect on the level of protection. STECF notes however, that should this new text lead to a significant entry of large and efficient Danish seiners in the area, the cumulative impacts inside the area may be more substantial.

Q2. Whether changing the provisions under Annex V, Part C, point 2.2 (c) to refer to “bottom otter trawls” instead of “bottom trawls” would ensure levels of protection that are at least equivalent to what is currently in force

STECF notes that in accordance with FAO gear codes, beam trawl (TBB) is a type of 'bottom trawls' (TBB, OTB, PTB, TBN, TBS and TB). Hence Regulation (EU) 2019/1241 prescribes that all beam trawlers irrespective of engine power are currently permitted to fish inside the 'plaice box' provided that such vessels do not engage in directed fishing for plaice and sole and comply with the relevant mesh size rules contained in Part B of this Annex.

STECF PLEN 14-02 concluded that the intended effects of the plaice box on the plaice stock and on the ecosystem are not straightforward or easy to measure. However, according to Beare et al (2013), the plaice box seems to have had a positive effect on epibenthic predators. STECF notes that otter trawling generally has less physical and visual impacts on the seabed compared to beam trawling (Lindeboom and De Groot, 1998; Gislason et al. 2014, 2016, Eigaard et al., 2016 and Hiddink et al., 2017. Larger beam trawl vessels with more engine power can tow larger and heavier beam trawls compared to vessels with <221 kW.

STECF concludes that changing the provisions under Annex V, Part C, point 2.2 (c) to refer to “bottom otter trawls” instead of “bottom trawls” would prevent larger beam trawlers with >221 kW engine power to fish inside the plaice box, and thus ensure levels of protection that are at least equivalent to what is currently in force.

STECF notes that there would be socio-economic consequences, for smaller shrimp vessels, if they must compete with larger beam trawl vessels with more engine power fishing in the same area. Beare et al. (2013) highlights the importance of considering socio-economic and political objectives when setting up the management for semi-closed areas like the plaice box. STECF notes that EWG 20-14 could, however, not fully evaluate the socio-economic benefits of the plaice box for the smaller vessels due to a lack of comparable data from the historical period previous to the implementation of the plaice box. STECF suggests it may be possible to assess the potential negative economic impact of lifting the restrictions on small shrimp vessels.

Q3. Whether introducing a provision under Annex V, Part C, point 2.4, limiting the length of beam trawlers newly included in the list to a maximum of 24 metres would ensure levels of protection that are at least equivalent to what is currently in force

STECF notes that the proposal to limit the length of beam trawlers newly included in the list of vessels permitted to fish in the 'Plaice box' to a maximum of 24 meters, means that the provisions would equate to that prescribed in Regulation (EC) 850/98.

STECF observes that according to public data in the EU fleet register¹⁶, Belgian and Dutch beam trawl vessels up to 24m have an engine power registered up to or equal to 221 kW but the registered kW seems largely independently of vessel length. Vessels above 24m

¹⁶ https://webgate.ec.europa.eu/fleet-europa/search_en

have registered engine power substantially higher than 221kW (above 700 kW) with a much more direct correlation between kW and vessel length. Furthermore, an EU Commission report from 2019 on engine power verification by Member States, evidenced that in those fleets, the true engine power of vessels below 221 kW often exceeds, sometimes substantially, the registered kW. The report highlights poor effectiveness and enforcement of engine power limitations by Member States. , Therefore, STECF observes that restricting the length of beam trawlers newly included in the list to a maximum of 24m would help to reduce the potential impact on the ecosystem compared to the current provisions of Regulation (EC) No 2019/1241, noting that even smaller beam trawlers below this length will have impacts.

STECF therefore concludes that the proposed addition of limiting the length of beam trawlers newly included in the list to a maximum of 24 meters would ensure levels of protection that are at least equivalent to what is currently in force.

STECF conclusions

Q1. Whether, based on the information provided with the JR, the reintroduction of the specific exemption for Danish seine as set out under the old technical measures regulation (EC) 850/98 would ensure levels of protection that are at least equivalent to what is currently in force?

STECF concludes that considering the limited number of vessels concerned and the limited impact that Danish anchor seine has on the bottom, the reintroduction of the specific exemption for Danish seine is not expected to have any significant effect on the level of protection inside the area. STECF notes however, that should this new text lead to a significant entry of large and efficient Danish seiners in the area, the cumulated impact might become more substantial.

Q2. Whether changing the provisions under Annex V, Part C, point 2.2 (c) to refer to "bottom otter trawls" instead of "bottom trawls" would ensure levels of protection that are at least equivalent to what is currently in force

STECF concludes that the proposed change of the expression "bottom trawls" to "bottom otter trawls" in Annex V, part C, para 2.2.(c) is likely to remove any ambiguity in the Regulation and provide levels of protection that are at least equivalent, and likely higher, to what is currently prescribed in 2019/1241. Amending "bottom trawls" to "bottom otter trawls" would mean that beam trawlers with an engine power >221kW would be excluded.

Q3. Whether introducing a provision under Annex V, Part C, point 2.4, limiting the length of beam trawlers newly included in the list to a maximum of 24 metres would ensure levels of protection that are at least equivalent to what is currently in force

Given the limited effectiveness of engine power limitations to restrict the actual fishing power of beam trawls registered under 221 kW, STECF concludes that restricting to <=24

m the vessel length of beam trawlers newly included in the list of vessels with <221 kW engine power that are allowed to fish in the 'Place box', will ensure levels of protection that are at least equivalent to what is currently in force in Regulation (EC) No 2019/1241.

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