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Scientific, Technical and Economic Committee for Fisheries (STECF) - Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-18-14)

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Abstract

Commission Decision of 25 February 2016 setting up a Scientific, Technical and Economic Committee for Fisheries, C(2016) 1084, OJ C 74, 26.2.2016, p. 4–10. The Commission may consult the group on any matter relating to marine and fisheries biology, fishing gear technology, fisheries economics, fisheries governance, ecosystem effects of fisheries, aquaculture or similar disciplines. This report was reviewed by the STECF in its plenary meeting (PLEN-18-03), 12-16 November 2018.

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STECF advice:

Ulrich, C.., Abella, J. A., Andersen, J., Arrizabalaga, H., Bailey, N., Bertignac, M., Borges, L., Cardinale, M., Catchpole, T., Curtis, H., Daskalov, G., Döring, R., Gascuel, D., Knittweis, L., Lloret, J., Malvarosa, L., Martin, P., Motova, A., Murua, H., Nord, J., Prellezo, R., Raid, T., Sabatella, E., Sala, A., Scarcella, G., Soldo, A., Somarakis, S., Stransky, C., van Hoof, L., Vanhee, W., van Oostenbrugge, H., Vrgoc, N.

EWG-18-14 report:

Scarcella, G., Avdic Mravlje, E., Bernreuther, M., Cappel, R., Casey, J., Cardinale, M., Carvalho, N., Curtin, R., Daskalov, G., Davidjuka, I., Doering, R., Grati, F., Guitton, J., Jung, A., Knittweis, L., Mihanovic, M., Panayotova, M., Radu, G., Ramos, J., Russo, T., Van Winsen, F., Velinova, M., Virtanen, J., Williamson, K., Yankova, M., Zolubas, T.

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Request to the STECF

The STECF is requested to review the report of the STECF Expert Working Group meeting, evaluate the findings and make any appropriate comments and recommendations.

STECF response

STECF reviewed the report of EWG 18-14 and notes that all of the terms of reference were addressed during the meeting.

STECF notes that DG Mare during the meeting of the EWG expressed the usefulness of previous reports in relation to addressing the initiatives and developments at the Member State level in order to secure balance between fleet capacity and fishing opportunities.

STECF observes that the EWG addressed ToR 1-4 using the same approach as previous years. In ToR 1, the six balance indicators were calculated and presented by Member State, i.e. (i) the Sustainable harvest indicator (SHI),(ii) the Stocks at risk indicator (SAR), (iii) the Return on investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA), (iv) the Ratio between current revenue and break-even revenue (CR/BER), (v) the inactive fleet indicators, and (vi) the vessel use indicator. In ToR 2, the action plans proposed by Member States in their annual report were assessed, and commented on in ToR 3. Finally, a list of fleet segments considered being out of balance according to the SHI and SAR indicators are presented.

STECF reiterates its concerns as stated in the balance report from last year (STECF-17-18) about the usefulness and reliability (individually or in combination) for identifying fleet segments out of balance with the fishing opportunities thus requiring an action plan by Member States.

Several EWG's process data and calculate indicators that potentially could be used to inform on whether fishing capacity is in balance with fishing opportunities. Examples are the EWG related to the Annual Economic report (STECF 18-07) and the Fisheries Dependent Information (STECF 18-11) as well as the CFP expansion on indicators (STECF 18-15). It is important to take into account the outcomes of such EWGs to ensure consistency between EWGs.

In ToR 5, the EWG estimated, when possible, the abovementioned six balance indicators for specific Outermost Regions (OMR). STECF observes that the balance indicators could be calculated fully for the Portuguese OMRs, and partly for the Spanish OMRs, but not for the French OMRs by lack of available data.

Finally, ToR 6 addressed potential improvements in the indicators used to describe the balance between fleet capacity and fishing opportunities. In relation to ToR 6, STECF welcomes the initiative to investigate possible new biological indicators to address the balance issue.

In the current 2014 EC Balance Indicator Guidelines, two biological indicators are used:

1) the Sustainable Harvest Indicator (SHI) being a measure of how much a fleet segment relies on stocks that are overfished, where "overfished" is assessed with reference to F_{msy} values over time, and reliance is calculated in economic terms using value of landings
2) the Stock at Risk (SAR) Indicator being a measure of how many biologically vulnerable stocks are being affected by the activities of the fleet segment, where "vulnerability" is assessed to be stocks below B_{lim}, prohibited for direct fishery/lowest possible level, under regulation requiring to release caught fish unharmed or on the IUCN "red list" or CITES list.

STECF observes that the EWG considered three possible additional indicators:

1) Number of Overharvested Stocks (NOS) indicating the number of stocks exploited by a fleet segment for which the ratio of F/F_{MSY} is greater than 1.0 that are exploited by a fleet segment
2) The Number of Stocks at Risk (NSR) being a subset of the current SAR indicator keeping only the quantitative criterion (stocks below B_{lim} based on analytical assessments, criterion a) and excluding thus the qualitative criteria (criteria b-d)[1] : this additional information with clear sources should ease the interpretation of SAR outcomes.
3) The Economic Dependency Indicator (EDI) showing how reliant a particular fleet segment is on the revenue obtained from stocks that are being exploited at a rate that is not consistent with MSY

STECF observes that the EWG managed to address several aspects of the three indicators, but also mentions that further testing and analysis are needed before decisions are made regarding these. STECF also observes that any change in indicators should be carefully implemented in order to keep the continuity in time series and thus development over time.

STECF finally observes that assessing overcapacity also requires an evaluation of how far the current situation stands from the target, especial in terms of fishing mortality. This was the initial intention of the SHI indicator, but EWG 18-14 presents several issues that gives rise to criticism of the SHI indicator. STECF notes that a detailed description and discussion of the methodology can be found in the STECF report 15-02

STECF conclusions

STECF endorses the findings from the EWG, and concludes that EWG has given a range of valuable inputs for potential future developments of this report in ToR 5 and ToR 6, despite that ToR 5 could only be partly addressed due to insufficient availability of data.

STECF concludes that the guidelines on balance indicators (COM (2014) 545 Final) should be revised in line with previous advices, taking into account concerns and proposals in previous EWG reports. This revision would improve the possibility for the Commission and Member States to meet their obligations under Article 22 of the CFP (Regulation (EU) No 1380/2013).

STECF also concludes that a revision should:

1) Discuss, analyse and test potential new indicators, for instance in dedicated EWGs, in order to assess and compare the indicators currently used and newly proposed indicators towards given criteria e.g. robustness, sensitivity, easy and unambiguous calculation. A suitable approach could be to test the indicators through simulation as well as for typical situations in Area 27, Area 37 and OFR to ensure the robustness of the indicators in light of the data available
2) Consider adopting the approach proposed by the EWG to assess the balance between capacity and fishing opportunities at the fishery level rather than separately by fleet segment. In this context the fishery constitutes all fleets from all Member States that have a fishing opportunity for a stock or group of stocks. Separate fleet segment indicators could then inform on whether the segments concerned are overcapitalised which in turn would be informative to MSs for fleet management.
3) Consider further analysis of the SHI indicator including testing the SHI indicator restricted to overexploited stocks

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[1] b) subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis; or

c) subject to a fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited; or

d) a stock which is on the IUCN 'red list' or is listed by CITES.

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REPORT TO THE STECF

EXPERT WORKING GROUP ON

Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities

(EWG-18-14)

Larnaca, Cyprus, 17-21 September 2018

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area

ABSTRACT

The expert working group EWG-18-14 was convened under STECF to assess balance indicators for EU Member State fleet segments (ToR 1 and ToR 4), review national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities, and assess action plans submitted for fleet segments where Member States identified structural overcapacity (ToRs 2 and 3). Also, the group tried to estimate balance indicators for some specific Outermost Regions [namely France (Réunion, French Guiana, Martinique, Guadalupe and Mayotte), Portugal (Madeira and Azores) and Spain (Canary Islands); ToR 5] and proposed an improved suite of indicators to aid the assessment of the balance between fleet capacity and fishing opportunities (ToR 6). The EWG-18-14 was held in Larnaca, Cyprus from the 17 – 21 September 2018.

Independently-calculated balance indicators, based on DCF economic and transversal data and stock assessment information were provided to experts, and the evaluation of these balance indicators was reported by country and region. In addition, experts considered a number of recurring issues and caveats related to biological, economic, and technical indicators. Action plans submitted by Member States for fleet segments with identified structural overcapacity as identified by the Member States in their fleet capacity reports in line with Article 22.4 of Regulation (EU) 1380/2013 were evaluated, and the assessment is presented in the present report. In general, while it was relatively straightforward to identify in Member States' action plans, those fleet segments that were additional to those included in the action plans submitted with their fleet reports, the information presented was only sufficient to note the actions that Member States intend to implement to address any imbalances in the fleet segments identified and was not sufficient to quantitatively assess whether such measures would be sufficient to redress any such imbalances.

The EWG compiled the list of fleet segments that according to the 2016 values for either i) the SHI or ii) the SAR, as computed by the STECF may be out of balance as requested under ToR 4.

ToR 5 was only fully addressed for the Portuguese OMRs as balance indicators are provided for each specific OMR fleet segment. Indicators are also presented for the Canaries fleet segments, but these segments are determined from the OFR based on assumptions. It has not been possible to identify indicators for French OMR fleet segments with the STECF data.

Finally, in the framework of ToR 6, the EWG presented preliminary analyses to test new candidate biological indicators. However, such analysis and testing would be better addressed in a dedicated EWG which will be required to assess and compare of currently used and newly proposed indicators towards given criteria e.g. robustness, sensitivity, easy and unambiguous calculation. A suitable approach could be to test the indicators for several hypothetical model fleet segments as well as for typical situations in Area 27, Area 37 and OFR to ensure the robustness of the indicators in light of the data available. EWG 18-14 notes that without a deep and roboust analysis on candidate indicators it might be confusing for MS to apply new/revised indicators in the fleet report for 2019.

1 INTRODUCTION

1.1 Terms of Reference for EWG-18-14

The following terms of reference were agreed by DG Maritime Affairs and Fisheries (DG-MARE) and the chair of the expert working group:

Background

The Commission requests that an analysis of balance between fleet capacity and fishing opportunity be made using a standard approach across all EU fleet segments and based on DCF information. Where possible, evaluation should use data reference year 2009 to 2015.

Terms of Reference:

1. **Based on the data submitted by Member States under the 2018 DCF Economic data call and the most recent assessments and advice from relevant scientific bodies on stock status and their exploitation rates, compute values for the tech-nical, economic and biological indicators specified in the European Commission Guidelines (COM 2014, 545 final)[2] .**

JRC will provide tabulated values (in the same format as the MS indicator tables in the STECF 16-09 data table for all indicators as detailed in items i) to vi) below, covering all MS fleet segments wherever the necessary data are available.

Values for the following indicators to be provided as specified in the 2014 Balance Indicator Guidelines[2]:

- (i) Sustainable harvest indicator (SHI)
- (ii) Stocks at risk indicator (SAR)
- (iii) Return on investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)
- (iv) Ratio between current revenue and break-even revenue (CR/BER)
- (v) The inactive fleet indicators
- (vi) The vessel use indicator

For fleet segments for which the indicator values can be calculated, STECF is requested to present the trend over the last 5/6-year period and where relevant, to comment on any implications of such trends. STECF is also requested to comment on the reliability of data used in calculating the indicator values.

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[2] COM (2014) 545 final. Communication from the Commission to the European Parliament and the Council. Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy.

For fleet segments for which indicator values cannot be calculated, STECF is requested to explain why that is the case.

2. **'Review the fleet reports submitted by Member States under Article 22.2 / 22.3 of the CFP and assess whether the action plans under Article 22.4 of regulation (EU) 1380/2013 submitted by May 2018 with the Annual report on capacity cor-responding to the situation in 2016 have effectively set out "the adjustment tar-gets and tools to achieve a balance and clear time-frame for its implementation" in line with Article 22.4 of Regulation (EU) 1380/2013'.**

3. **Comment on the proposed measures in the new action plans under Article 22/4 of Regulation (EU) 1380/2013 submitted by Member States, together with their fleet reports on capacity corresponding to the situation in 2017, intended to ad-dress the imbalance as identified in any fleet segments additional to these identi-fied as imbalanced in the fleet report of capacity for 2015. Comments shall focus on whether the measures in the new action plans can be considered sufficient to balance the additional, imbalanced fleets.**

4. **For each Member State, list those fleet segments that according to the 2016 values for either i) the SHI or ii) the SAR, as computed by the STECF, were indi-cated to be out of balance with their fishing opportunities together with the fish stocks on which such segments rely and the fishing area to which such segments are attributed. Separate lists should be provided for each indicator. The fish stocks on which a fleet segment is reliant shall be determined by ranking the landings from all stocks caught by that fleet segment in descending order in terms of landings value and listing those stocks that account for 75% of the total value of the landings by that fleet segment. The area to which a fleet segment is attributed shall be given as FAO area 27, FAO area 37 or other fishing region (OFR).**

5. **For the Outermost Regions of France (Réunion, French Guiana, Martinique, Guadalupe and Mayotte), Portugal (Madeira and Azores) and Spain (Canary Islands), list those fleet segments that according to the 2016 values for either the environmental, economic or technical indicators in the COM Guidelines (2014) 545 Final, as computed by the STECF, were indicated to be out of balance with their fishing opportunities together with the fish stocks on which such segments rely and the fishing area to which such segments are attributed. Separate lists should be provided for each indicator. The fish stocks on which a fleet segment is reliant shall be determined by ranking the landings from all stocks caught by that fleet segment in descending order in terms of landings value and listing those stocks that account for 75% of the total value of the landings by that fleet segment. List the fleet segments for which information available does not allow to calculate the above indicators and conclude on balance.**

6. **The EWG is requested to propose and justify an improved suite of environmental indicators to aid the assessment of the balance between fleet capacity and fishing opportunities**

The environmental indicators cited in ToRs 5 and 6 are the biological indicators specified in the European Commission Guidelines (COM 2014, 545 final).

2 GENERAL CONSIDERATIONS REGARDING THE ASSESSMENT OF 'BALANCE'

As far as possible the Expert group has explicitly addressed the terms of reference provided by the Commission which relate to the calculation and evaluation of balance indicators and the review of fleet reports from Member States and any associated action plans provided in accordance with the criteria specified in the 2014 Balance Indicator Guidelines to Member States (COM (2014) 545 FINAL) and Article 22 of regulation (EU) 1380/2013 to redress any imbalances between their fleet capacity and fishing opportunities.

In previous reports, the Expert Group has discussed at length and provided a detailed critique of the application and utility of the indicators and criteria specified in the 2014 Balance Indicator Guidelines (COM (2014) 545 FINAL) for assessing the balance between capacity and fishing opportunities. Furthermore, numerous suggestions for modification and improvement have also been provided in previous reports and all such criticisms and suggestions have been endorsed by the STECF. The Expert Group wishes to stress that all previous criticisms and suggestions remain valid and in particular draws the attention of the Commission to the following sections of previous reports:

- STECF report 15-02; sections 2.7, 2.8, 2.9;
- STECF report 15-15; 3.5.1, 3.6.1, 3.8, 3.9, 3.10, 3.11.
- STECF report 16-09; 4.2, 4.3, 4.4, 4.5.
- STECF report 17-08; 3.4 and ANNEX I.

The comments and suggestions given in the above report sections are intended to provide advice on how the guidelines to Member States (COM (2014) 545 FINAL) might be modified at some future date and lead to a more appropriate suite of indicators to inform Member States on the balance between capacity and fishing opportunities. In this context, the Expert Group wishes to draw attention to the concluding paragraph from STECF General Observations and Conclusions on the utility and appropriateness of balance indicators given in section 2 of STECF 15-15, which reads as follows:
"STECF acknowledges that there are no immediate plans by the Commission to revise the current suite of indicators or the Guidelines. Nevertheless, recognising that there may be a need to undertake such a revision at some future date, STECF suggests that it would be appropriate to commence investigating the properties and utility of alternative indicators at the earliest opportunity and well ahead of any decision on which indicators are to be used. The guidelines to Member States would then need to be revised accordingly and ideally include explicit instructions on precisely how indicator values should be calculated and how they should be interpreted in the context of the balance between capacity and fishing opportunities. STECF considers that the above work would best be undertaken by a dedicated Expert Working Group."

Furthermore, the Expert group wishes to stress that contrary to the criteria in the guidelines (COM (2014) 545 FINAL), the indicator values for all of the indicators being used to assess the balance between capacity and fishing opportunities merely inform on whether fleet segments should be scrutinised further to determine whether an action plan is warranted. The indicator values (either singly or in combination) cannot be considered reliable metrics to identify which fleet segments require an action plan.

In addition, the Expert Group also wishes to draw to the attention of the Commission the information in Section 8 and 9 (ToR 6) and Annex I of this report which provides a summary of discussion of Indicator Issues and Suggested Actions arising from the present and previous meeting of this expert group.

EWG 18-14 is requested to comment on whether the measures in the new action plans can be considered sufficient to balance any additional imbalanced fleets identified.

To assess whether the action plans can contribute to redressing any imbalance identified in the fleet report, EWG 18-14 suggests that Member State action plans should, at a minimum, contain the following information:

i. a clear statement on which fleet segments are considered to be imbalanced and why;
ii. specific objectives, i.e. that relate to those fleet segments that are identified as being imbalanced and/or the resources on which those segments are reliant;
iii. tools that are considered effective and are appropriate for the imbalanced fleet segments, e.g. by illustrating how the proposed tool will achieve the stated objectives;
iv. targets that are:
   (a) quantifiable,
   (b) specific to those fleet segments or resources identified, and
   (c) justified, e.g. by estimating the impact of the target proposed; and

v. a clearly stated, realistic timeframe to achieve the targets that are set.

EWG 18-14 suggests that Member States state whether any action plans are already in place, whether there have been any amendments to these action plans and specify what those amendments are. The EWG 18-14 also suggests that Member States should confirm that the action plans are being implemented and the progress of these in a section of their fleet reports.

In the following sections references to the 'fleet report for 2017' refers to the Annual fleet report delivered by each Member State in May 2018.

3 TOR 1 - ASSESSMENT OF BALANCE INDICATORS

3.1 Background

All indicators provided and used in the STECF EWGs 18-14 were calculated according to the 2014 Balance Indicator Guidelines (COM (2014) 545 final)[3]. The Commission's 2014 Balance Indicator Guidelines seek to provide a common approach for estimating the balance over time between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy.

3.2 Provision of Indicator Values

3.2.1 *Indicator Calculation Process*

JRC compiled a set of economic and technical indicators as part of STECF EWG 17-01 (Annual economic report 2017 of the EU fishing fleets – Part 1). During the Annual Economic Report (AER) 2017[4] (hereafter referred to as 'AER 2017') meetings indicators were quality checked, analysed and summarised for the period 2008-2016. The SAR indicator values were prepared under two ad hoc contracts and the SHI values were prepared via a collaborative agreement.

An expert group was convened from the 24th-26th July at the JRC in Ispra, Italy, and tasked with providing agreed balance indicator values in accordance with the methodologies outlined in the 2014 Balance Indicator Guidelines. Experts present at the preparatory meeting for EWG 18-14 (hereafter 'EWG 18-14 Prep. Meeting') (i) reviewed the results of biological indicator calculations for the areas / fleet segments they were familiar with, and (ii) reviewed indicator issues, problems and caveats which had been flagged by STECF 15-02 / STECF 15-15, and proposed measures to address these wherever feasible (see Annex I). Participants at the EWG 18-14 Prep. Meeting decided to adopt the date of 26th of July 2018 as a cut-off date for the inclusion of additional or updated data from Member States / advice on stock status from the relevant advisory bodies / IUCN and CITES listings (Table 3.2.1.1).

A table prepared by the JRC containing all the balance indicators by Member State (MS) and fleet segment (supra-region[5] + fishing technology + vessel length) was provided to EWG 18-14. Where available, data were provided for each year over the period 2008-2016.

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[3] Communication from the Commission to the European Parliament and the Council – Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy COM(2014) 545 final.

[4] Scientific, Technical and Economic Committee for Fisheries (STECF) – The 2016 Annual Economic Report on the EU Fishing Fleet (STECF-17-12). 2017. Publications Office of the European Union, Luxembourg, EUR 28359 EN, JRC 107883, 492 pp.

[5] The DCF supra-regions are: (1) Area 27 = Baltic Sea, North Sea, Eastern Arctic, North Atlantic; (2) Area 37 = Mediterranean Sea and Black Sea; (3) OFR = Other Fishing Regions.

Table 3.2.1.1 - Indicators provided to experts at EWG 18-14.

Indicator		Calculated by	Comments
Biological indicators	**SHI** Sustainable Harvest Indicator	Jerome Guitton	1. Calculated by landings value for 2008-2016 for every EU fleet segment for which data were available: • Data sources for stock assessment parameters included the ICES and ICCAT for fleet segments operating in Area 27. • For fleet segments operating in Area 37 the data sources far stock assessment parameters included: a. A database of STECF stock assessment results compiled by the JRC (accessible at: https://stecf.jrc.ec.europa.eu/dd/medbs/). Updated information on stock assessments carried out at FAO/GFCM working groups was collected during preparatory meeting . b. Tuna fisheries stock assessment • Updated information on assessments of stocks targeted by EU fleets in Distant Waters (OFR) and Outermost Regions was not available and could thus not be included in SHI calculations except for Tuna fisheries assessed by IOTC and ICCAT. 2. Coverage ratio was also provided to give the part of the landing values that are included in the SHI. This is a quality indicator and the higher the ratio is, the higher the validity of SHI. Values are not taken into consideration if the ratio is less than 40%. 3. ToR 4: the output was described in the term of reference. For each Member State, those fleet segments that according to the 2016 values for either i) the SHI or ii) the SAR, as computed by the STECF, were indicated to be out of balance with their fishing opportunities together with the fish stocks on which such segments rely and the fishing area to which such segments are attributed were listed. Separate lists were provided for each indicator. The fish stocks on which a fleet segment is reliant were determined by ranking the landings from all stocks caught by that fleet segment in descending order in terms of landings value and listing those stocks that account for 75% of the total value of the landings by that fleet segment. The area to which a fleet segment is attributed was given as FAO area 27, FAO area 37 or other fishing region (OFR). This new indicator was developed for all the fleets.
	SAR Stocks at Risk Indicator	Dr. Armelle Jung Dr. Tommaso Russo	1. Calculated for 2009-2016 for all fleet segments for which data were available. 2. Dr. Jung selected the stocks at risk: • For fleet segments operating in Area 27, the most recent ICES Advice on fishing opportunities was accessed through the ICES website (up to the cut-off date 30/06/2016). • For fleet segments operating in Area 37, the most

			recent GFCM/SAC and STECF stock assessment reports were taken into account. • For fleet segments operating in other areas (OFR), STECF stock assessment reports and RFMO's reports were considered. • Additional information was taken from Council Regulations fixing annual fishing opportunities; from GFCM, ICCAT, IOTOC, SEAFO, NAFO or SPRFMO scientific assessments reports, advices or recommandations ; the CITES species list and the IUCN Red List for Actinopterygii and Elasmobranchii. 3. Dr. Russo implemented a routine in R to calculate the SAR indicator for MS fleet segments. The R script is avalaible in the ftp meeting.
Economic indicators	**ROI or RoFTA** The Return on Investment (ROI) or Return on Fixed Tangible Assets (RoFTA)	JRC	1. Calculated using the same principle as STECF EWG 16-18; the target reference value to which the indicator value is compared is the 2016 risk-free interest rate. The most recent 5-year average (2011-2016) was also used, as stipulated in the 2014 Balance Indicator Guidelines. 2. Calculated for years 2009-2016, the most recent year for which DCF economic data are available.
	CR / BER Current revenue as proportion of break-even revenue	JRC	1. Calculated for years 2009-2016, the most recent year for which DCF economic data are available.
Technical/inactivity indicators	**VUR** Fleet segment utilisation ratio Average Days at Sea / Maximum Days at Sea	JRC	1. Calculated for years 2009-2016 using the latest data submitted by MS during the 2018 DCF call for economic data. 2. Member States (MS) had provided either maximum observed days at sea (DAS) for each fleet segment or maximum theoretical DAS. 3. Due to several inconsistencies and/or relevant missing information in the data provided by some MS, the EWG also used the value of 220 maximum theoretical days at sea per fleet segment for all MS, as stipulated in the 2014 Balance Indicator Guidelines.
	Inactive vessels per length category	JRC	1. Number and proportion of inactive vessels, in number, GT and kW for years 2009-2016 based on the latest data submitted by MS during the 2017 DCF call for economic data.
Data sources: 2018 DCF Fleet Economic Data Call; EUROSTAT; ICES online stock assessment database; JRC STECF stock assessment database; CITES species list; IUCN Red List.			

3.2.2 Data Source and Coverage

The data used to compile the various indicators were collected under the Data Collection Framework (DCF), cf. Council Regulation (European Commission (EC) No 199/2008 of 25th February 2008), amended by the multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019 (see the Commission Implementing Decision (EU) 2016/1251 of 12 July 2016 and the Council Regulation (EC) No 199/2008 on a framework for the collection of data in the fisheries sector). Technical and economic balance indicators were calculated using data submitted under the 2018 DCF call for fleet economic scientific data concerning 2008-2017 issued by DG MARE in January 2018. The two biological indicators (SHI and SAR indicator) were calculated based on DCF transversal (landings) data submitted under the same data call. Additional information needed to calculate the biological indicators was obtained from other sources (see Table 4.2.1.1).

The 2018 fleet economic data call requested transversal and economic data covering years 2008 to 2016/17. Capacity data (GT, kW, no. of vessels) was requested up to and including 2017, while employment and economic parameters were requested up to and including 2016. Most effort and all landings data were requested up to and including 2017, as well as, value of landings (non-mandatory) to allow for economic performance projections to be estimated for 2017. Landings and effort data for fleet segments operating in the Mediterranean & Black Sea region (i.e. Area 37) were requested at the GCFM-GSA level by the 2018 economic data call. This level of aggregation was requested to correctly allocate landings to the relevant stocks when calculating the biological balance indicators (see STECF 15-02 / 15-15 reports).

In terms of the completeness of the Member States data submissions, the AER 2018 report remarks ("Data issues" page 573) that most countries submitted most of the parameters requested under the call. In overall, there has been an improvement in the data quality and coverage compared to previous years. In terms of data quality, inevitably some 'abnormal' estimates for various indicators were detected by JRC or the AER experts during the 4 steps procedure implemented for the data checking (AER2018, p572), and in many cases were rectified by the Member States.

The main problem highlighted by AER 2018 is related to the incomplete data set for Greece, and the consequent exclusion of this MS from the analysis at EU and Regional level. Regarding the analysis at MS and fleet segment level, missing data are generally related to fleet segments with a low vessel number.

For confidentiality reasons, Member States may aggregate fleet segments into clusters to provide sensitive economic data. However, in several cases, clustering may not be enough to guarantee confidentiality, and hence, parts of MS fleets are not completely covered. As reported in AER 2018, this is the case of MSs such as Germany and Lithuania. Other MSs, such as Estonia and Latvia, simply did not provide any data on part of their fleet (high sea fleet).

Specific data issues at MS level reported in the AER 2018, which can affect the quality of the balance indicators are summarised as follows:

- Substantial amounts of missing data were registered for Greece and Spain.
- A significant amount of missing data for essential parts of the data call was registered also for France and Ireland;
- Estonia and Latvia did not provide data for the distant water fleets;
- For confidentiality reasons, Germany, Italy and Poland only provided partial data on the distant water fleets.

Regarding the fleets' inactivity, similarly to what observed by EWG 17-08 for the year 2016, the EWG 18-14 noted that also for the year 2017 data on the number of inactive vessels by length group was not provided by Denmark and Greece. Furthermore, information on inactive vessels was not provided at the requested aggregation level 'supra-region' by Spain, Denmark and Germany in 2016, and Germany and Portugal in 2017. However, the supra-region for Denmark is supposed to be AREA27. Differently, German, Portuguese and Spanish fleets are active in more than one supra-region. The lack of data on supra-region is particularly problematic for Spain since the Spanish fleet is active in all 3 supra-regions (Table 4.2.2.1).

Table 3.2.2.1 - Number of inactive vessels by length group for each Member State in 2016 and 2017

INACTIVE VESSELS 2016		BEL	BGR	CYP	DEU	DNK	ESP	EST	FIN	FRA	GBR	GRC	HRV	IRL	ITA	LTU	LVA	MLT	NLD	POL	PRT	ROU	SVN	SWE	Total
AREA27	VL0010								1396	141	1537			510		42	67		139	30	3693			236	7791
	VL1012								102	19	56			73		4			10	23	61			30	378
	VL1218	3						4	3	3	37			12		1			19	7	115			6	210
	VL1824	4								1	13			4		1			14	2	31				70
	VL2440	1								4	20			5		5			15	1	28			6	85
	VL40XX										4								9		6			2	21
	Total	**8**						**4**	**1501**	**168**	**1667**			**604**		**53**	**67**		**206**	**63**	**3934**			**280**	**8555**
AREA37	VL0006		241	29						62		526	974		329			152				4	51		2368
	VL0612		463	40						128		921	1262		611			117				21	33		3596
	VL1218		6	1						3		88	111		50			5				1	3		268
	VL1824		2							3			35		23			4					1		68
	VL2440									3			40		24			5							72
	VL40XX									1					2										3
	Total		**712**	**70**						**200**		**1535**	**2422**		**1040**			**283**				**26**	**88**		**6376**
OFR	VL0010									733											329				1062
	VL1012									42											2				44
	VL1218									1											7				8
	VL1824									8											6				14
	VL2440														1						4				5
	VL40XX															3									3
	Total									**784**					**1**	**3**					**348**				**1136**
NONE	VL0010				343	401	930																		1674
	VL1012				12	8	44																		64
	VL1218				7	8	74																		89
	VL1824				7	1	11																		19
	VL2440				2	1	40																		43
	VL40XX						6																		6
	Total				**371**	**419**	**1105**																		**1895**
	Total	**8**	**712**	**70**	**371**	**419**	**1105**	**4**	**1501**	**1152**	**1667**	**1535**	**2422**	**604**	**1041**	**56**	**67**	**283**	**206**	**63**	**4282**	**26**	**88**	**280**	**17962**

INACTIVE VESSELS 2017		BEL	BGR	CYP	DEU	ESP	EST	FIN	FRA	GBR	HRV	IRL	ITA	LTU	LVA	MLT	NLD	POL	PRT	ROU	SVN	SWE	Total
AREA27	VL0010					504		1635	141	1459		557		40	72		141	35				254	4838
	VL1012					15		112	19	61		80		6			13	12				33	351
	VL1218	1				26	2	9	3	35		10		1			20	5				9	121
	VL1824	4				3			1	14		2		1			13	3				1	42
	VL2440	1				13			4	22		3		6			16	1				3	69
	VL40XX					1				6							8						15
	Total	**6**				**562**	**2**	**1756**	**168**	**1597**		**652**		**54**	**72**		**211**	**56**				**300**	**5436**
AREA37	VL0006		228	20		86			62		950		308.5			136				4	52		1847
	VL0612		358	14		202			128		1178		665.8			100				16	35		2697
	VL1218		15			39			3		107		14.65			3					4		185.7
	VL1824		1			6			3		35		24.89			5					1		75.89
	VL2440					2			3		37		23.12			5							70.12
	VL40XX								1				2										3
	Total		**602**	**34**		**335**			**200**		**2307**		**1039**			**249**				**20**	**92**		**4878**
OFR	VL0010					134			733														867
	VL1012					5			42														47
	VL1218					3			1														4
	VL1824					4			8														12
	VL2440					14																	14
	VL40XX					4								5									9
	Total					**164**			**784**					**5**									**953**
NONE	VL0010				353														3967				4320
	VL1012				13														63				76
	VL1218				11														115				126
	VL1824				5														37				42
	VL2440				4														34				38
	VL40XX																		6				6
	Total				**386**														**4222**				**4608**
	Total	**6**	**602**	**34**	**386**	**1061**	**2**	**1756**	**1152**	**1597**	**2307**	**652**	**1039**	**59**	**72**	**249**	**211**	**56**	**4222**	**20**	**92**	**300**	**15875**

3.2.3 Fleet Segment Coverage

As reported above, the estimation of the balance indicators requires multiple data coming from different sources. As data are not available for all fleet segments, the balance indicators are calculated for a percentage of the EU fleet. This percentage depends on the specific indicator and its data needs. For instance, the VUR indicator needs data on the maximum days at sea, which are provided by MSs on a voluntary basis. When these data are not provided, the indicator cannot be calculated. On the other hand, the calculation of the SHI > 40% indicator depends on the number of stocks assessed in a specific fishing area. When this number is limited, the indicator cannot be calculated for the fleet segments exploiting that area.
To provide a measure per MS of the percentage of fleet segments for which an indicator is calculated, the landings value of these fleet segments is divided by the total landings value of the MS fleet. The use of the landings value instead of the number of fleet segments to calculate these percentages is aimed to consider the different weight of the fleet segments at MS level.

Table 3.2.3.1 shows the values of these percentages for each indicator and MS. Assuming that data on landings value are available for all fleet segments, a value of 100% means that the indicator is calculated for all fleet segments or, equivalently, for a number of fleet segments covering 100% of the MS landings value. This means that the data required to calculate that indicator are available for all fleet segments.
Values for the SHI indicator are reported in the table for (i) SHI values that were calculated for all stocks with assessment data, even if the proportion of landings value of the assessed stocks made up less than 40% of the total landings value of the fleet segment (in such cases, the indicator is considered as unrepresentative/unreliable), and (ii) SHI values calculated only for those fleet segments for which the proportion of landings value of the assessed stocks made up more than 40% of the total landings value of the fleet segment. For the SAR indicator, all fleet segments with corresponding landings data were screened for stocks falling under the definition of stocks at risk; all of the landings (in weight) data provided by MS were thus considered in the SAR analysis.

Table 3.2.3.1 - Coverage of each balance indicator in terms of landed value submitted by MS for the reference year 2016. SHI = coverage of fleet segments for which SHI could be calculated; SHI 40%+ = coverage of fleet segments where proportion of landings value of the assessed stocks made up more than 40% of the total landings value of the fleet segment.

MS	Vessel utilisation ratio (VUR)	VUR using 220 days	Stocks-at-risk indicator (SAR)*	Sustainable harvest indicator (SHI)	SHI >40%+	Current revenue / break-even revenue	Return of fixed tangable assets (RoFTA)	Return on Investment (RoI)	Net profit margin (NPLm)
BEL	100%	100%	100%	100%	50%	100%	100%		100%
BGR	68%	68%	100%	100%	100%	64%	64%		64%
CYP		100%	100%	100%	16%	100%	100%		100%
DEU	92%	92%	100%	100%	71%	92%	92%		92%
DNK		100%	100%	94%	73%	100%	100%	100%	100%
ESP	70%	70%	100%	91%	42%	58%	58%	17%	58%
EST	40%	80%	100%	100%	80%	80%	80%	80%	80%
FIN	100%	100%	100%	100%	80%	100%	100%		100%
FRA	68%	68%	100%	85%	36%	61%	61%		61%

MS	Vessel utilisation ratio (VUR)	VUR using 220 days	Stocks-at-risk indicator (SAR)*	Sustainable harvest indicator (SHI)	SHI >40%+	Current revenue / break-even revenue	Return of fixed tangable assets (RoFTA)	Return on Investment (RoI)	Net profit margin (NPLm)
GBR	67%	67%	100%	90%	46%	67%	67%	67%	67%
GRC		92%	100%	78%	28%	100%	100%		100%
HRV	74%	74%	100%	93%	35%	70%	70%		70%
IRL	57%	57%	100%	87%	45%	57%	57%		57%
ITA	91%	100%	100%	87%	75%	95%	95%		95%
LTU	41%	41%	100%	83%	50%	41%	41%		41%
LVA	100%	100%	100%	100%	100%	100%	100%		100%
MLT	100%	100%	100%	85%	19%	95%	95%	28%	95%
NLD	100%	100%	100%	100%	50%	100%	100%	100%	100%
POL	77%	100%	100%	77%	22%	77%	77%		77%
PRT	98%	100%	100%	88%	20%	98%	98%		98%
ROU	66%	66%	100%	100%	100%	66%	66%	66%	66%
SVN	100%	100%	100%	100%	50%	100%	100%		100%
SWE	29%	29%	100%	91%	70%	29%	29%		29%
EU total	68%	76%	100%	90%	46%	72%	72%	16%	72%

*** All landings data submitted by MS were considered for the calculation of the SAR indicator. However, where "No stock-at-risk" was found may be due to cases where the data submitted was not in the correct aggregation level to detect particular stocks and thus SAR coverage may be misleading.**

It is important to note that full coverage in the table above does not necessarily mean that the entire MS fleet is covered. It simply means that all the landings data that was submitted was covered. However, for confidentiality reasons, some MS may not provide landings data for specific fleet segments in cases where the data are considered sensitive and clustering of fleet segments may be insufficient to overcome breaching confidentiality rules. In some cases, only landings in weight are provided without the corresponding landed values for all active fleet segments reported by a MS. Indicator coverage is thus only relative to the data provided (value of landing), and should be considered together with the number of fleet segments and/or vessels.

In other cases, fleet segments are omitted entirely, i.e. not even capacity data are reported by MS. For instance, in the 2017 data call, Estonia and Latvia, which appear to have full coverage for most of the indicators, provided data only for their Baltic Sea fleets, since no data on their distant water fleets were submitted due to confidentiality issues. In such cases, there is no way of knowing what the actual coverage would be because certain fleet segments are completely missing from the submitted DCF data. Information on active fleet segments in 2016 with missing landings in value that can be identified is presented in Table 3.2.3.2.

Table 3.2.3.2 - Summary table showing for each Member State the number of fleet segments for which data on landings in value was available in 2016, the number of active fleet segments, and the active fleet segments in 2016 with missing landing values.

MS	MS	Number of Active fleet segments in 2016	Number of aggregated fleet segments in 2016	Data on value of landings in 2016	Format of data provision for Value of Landings in 2016	Landings data coverage in 2016	Fleet segments in 2016 with missing Value of Landings
BEL	Belgium	10	4	4	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
BGR	Bulgaria	25	17	25	Fleet segment	Available for all fleet segments	
CYP	Cyprus	6	6	6	Fleet segment	Available for all fleet segments	
DEU	Germany	20	14	14	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
DNK	Denmark	19	19	19	Fleet segment	Available for all fleet segments	
ESP	Spain	84	59	84	Fleet segment	Available for all fleet segments	
EST	Estonia	5	4	5	Fleet segment	Available for all fleet segments	
FIN	Finland	8	5	5	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
FRA	France	97	62	94	Fleet segment	Missing for 3 fleet segments; the other 6 missing fleet segments (A27 DFN1218 °, A37 DFN1218 °, A37 MGO0612 °, OFR FPO1012, A27 DFN1012(PGP) °, A27 MGP0010 °, A27 MGP0010 °(TM) are possibly provided aggregated due to confidentiality	FRA OFR PGP1012 FRA A27 DFN1012 °(DFN) FRA A27 MGP0010 °(MGP)
GBR	United Kingdom	43	29	43	Fleet segment	Available for all fleet segments	
GRC	Greece	23	14	14	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
HRV	Croatia	31	23	31	Fleet segment	Available for all fleet segments	
IRL	Ireland	33	23	33	Fleet segment	Available for all fleet segments	
ITA	Italy	33	24	24	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
LTU	Lithuania	12	8	8	Aggregate fleet	Available for all fleet segments or aggregated	

MS	MS	Number of Active fleet segments in 2016	Number of aggregated fleet segments in 2016	Data on value of landings in 2016	Format of data provision for Value of Landings in 2016	Landings data coverage in 2016	Fleet segments in 2016 with missing Value of Landings
					segment	fleet segments	
LVA	Latvia	3	3	3	Fleet segment	Available for all fleet segments	
MLT	Malta	21	21	21	Fleet segment	Available for all fleet segments	
NLD	Netherlands	27	14	14	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
POL	Poland	16	9	7	Aggregate fleet segment	Missing for 2 fleets	POL A27 DTS40XX; POL OFR TM40XX
PRT	Portugal	60	53	53	Aggregate fleet segment	Available for all fleet segments or aggregated fleet segments	
ROU	Romania	6	4	6	Fleet segment	Available for all fleet segments	
SVN	Slovenia	14	4	4	Aggregate fleet segment	Available for all aggregated fleet segments	
SWE	Sweden	25	24	24	Fleet segment	Available for all fleet segments; missing for 1 fleet segment - provided by cluster possibly due to confidentiality (A27 PGO VL0010)	

3.2.4 Biological Indicator Visualisation Tool

The expert responsible for the calculation of the SHI values (J. Guitton), has developed an interactive tool which allows users to visualise the input data as well as the results of the biological indicator calculations. The tool is available at:

Link: http://sirs.agrocampus-ouest.fr/stecf_balance_2018/

The input data and balance indicator calculation results can be viewed thematically at fleet segment, country and supra-region level. For example, input data such as landings data can be visualised by weight or value; graphs showing the list of stocks used in calculations and the corresponding timeseries of F/F_{MSY} used for each stock can be displayed; indicator results can be viewed individually or as a combination of a number of indicators displayed on the same graph. The online tool includes updated values of (i) biological indicators specified in the 2014 Balance Indicator Guidelines, and (ii) the alternative indicators suggested in STECF reports 15-02 and 15-15.

EWG 17-08 considers that the tool provides a useful and informative synthesis of the available indicator values and makes the inputs and calculation process transparent. It could also aid Member States to identify and select those fleet segments that require targeted management measures to address the issue of balance/capacity.Member States. The figures below show some examples of the visual tools available online; an example of the potential utility of the evaluation tool is explained in section 3.8 of STECF report 15-15 (Figures 3.2.4.1-9).

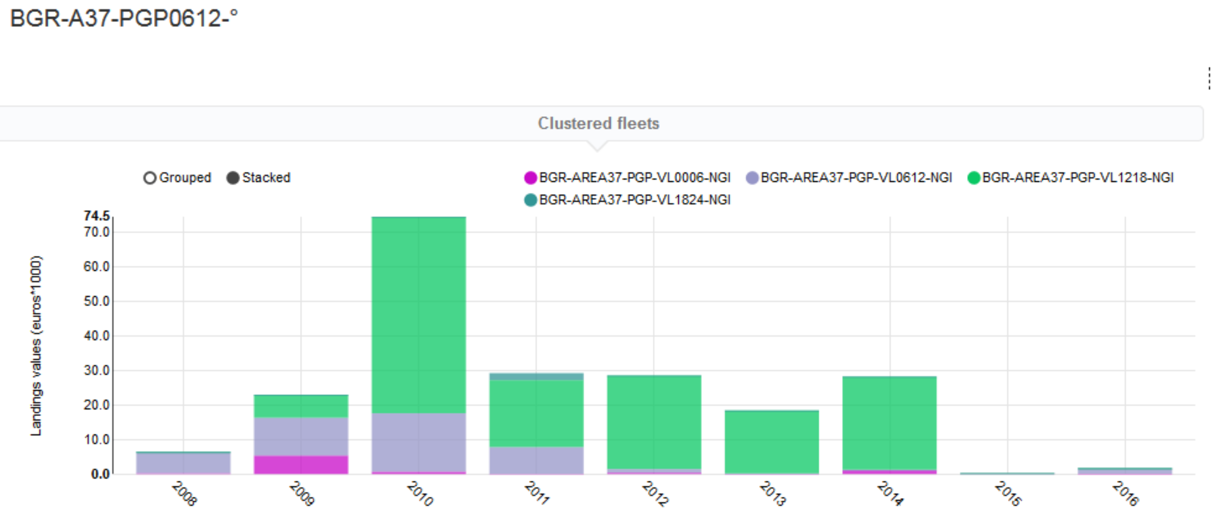

Figure 3.2.4.1 - Comparison of fleet aggregation used in the calculation of economic indicators, where fleet segment clusters are used for confidentiality reasons, and biological indicators, where the lowest aggregation level possible is used. In the above example economic indicators would be available for the fleet segment BGR A37 PGP0612 A37 DFN1218 depending on the reference year biological indicators would be available for the corresponding segments BGR-AREA37-PGP-VL0612-NGI, BGR-AREA37-PGP-VL0006-NGI, BGR-AREA37-PGP-VL1824-NGI, BGR-AREA37-PGP-VL1218-NGI. This tool allows for a visual check of clustering consistency by Member States between years.

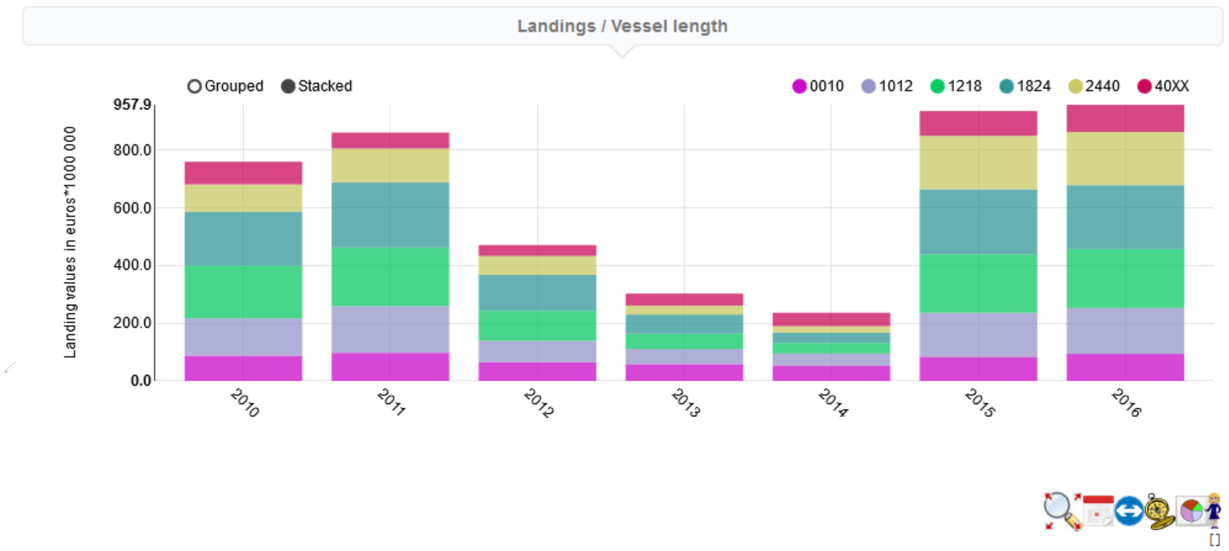

Figure 3.2.4.2 - Total landings values in Euros (x 1 000 000) by fleet segment length (0-10 m; 10-12 m; 12-18 m; 18-24 m; 24 – 40 m; >40 m length overall) for the French

fleet in 2010 to 2016 working in AREA 27, as used in the calculation of balance indicators.

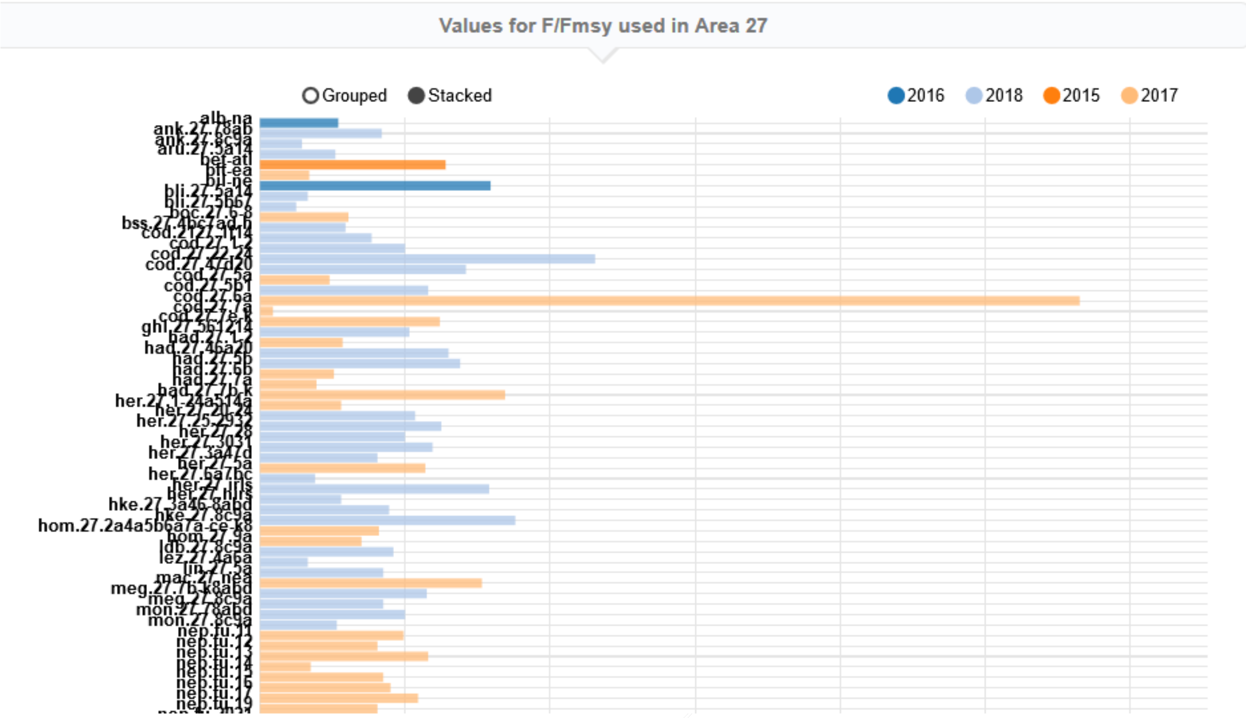

Figure 3.2.4.3 - Most recent F/F_{MSY} values for stocks and corresponding landing values in Area 27 used in the calculation of the SHI indicator. Assessments made available in the reporting years 2014-2018 were used.

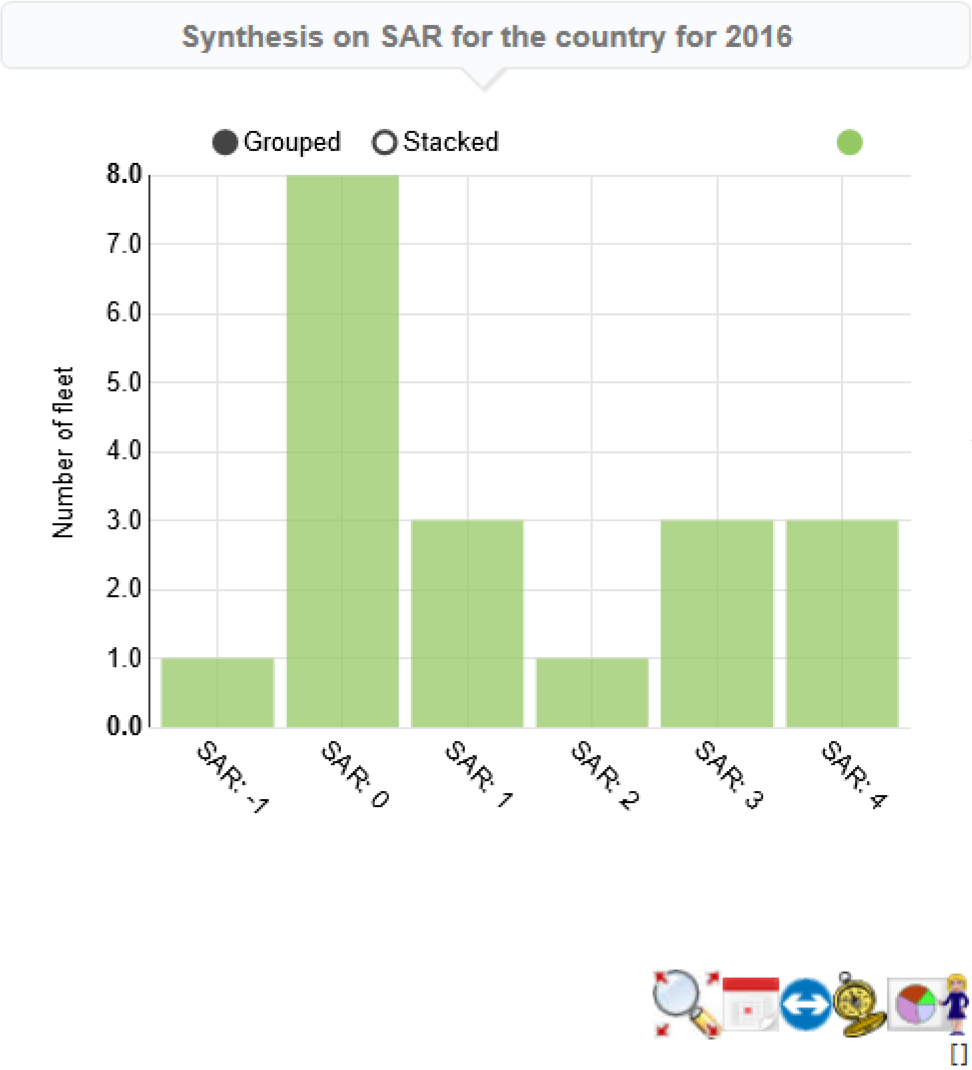

Figure 3.2.4.4 - Stocks at Risk Indicator (SAR) calculation results – indicator values at Member State level. Example shows the number of Danish fleet in the reference year 2016, for which the SAR value is 0 (n=8), 1 (n = 3) etc.

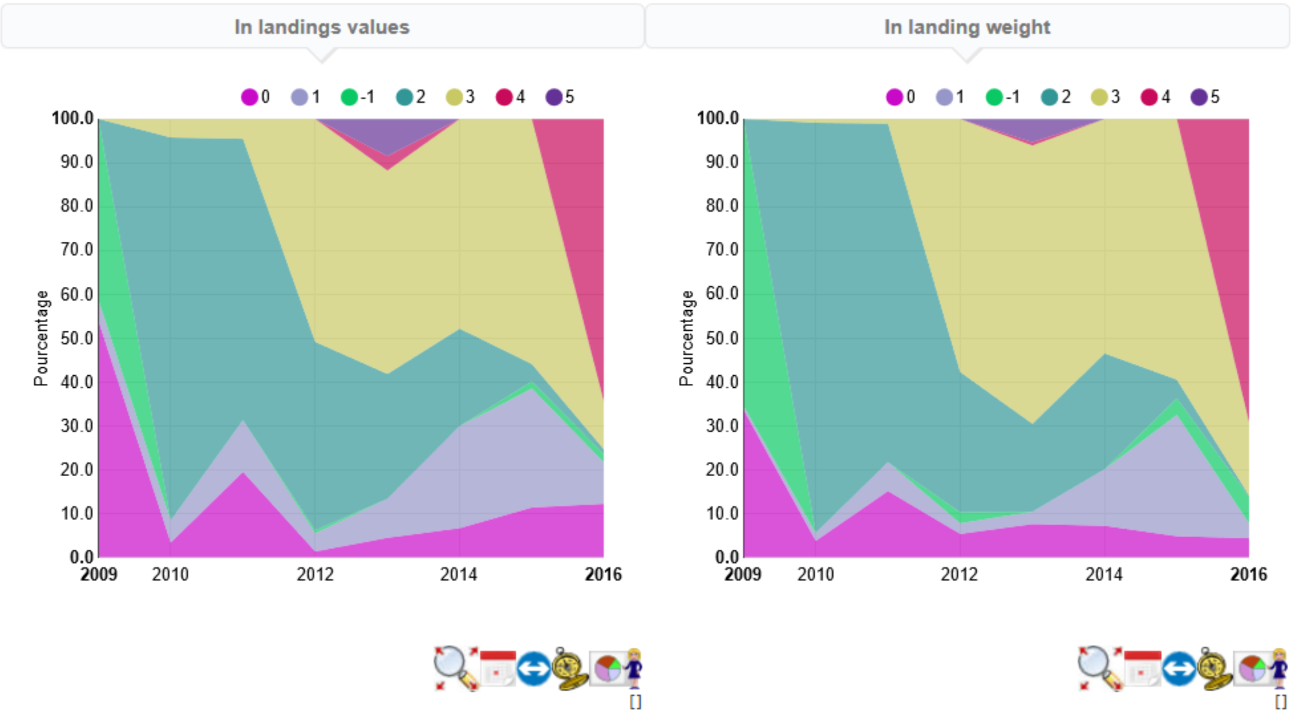

Figure 4.2.4.5 - Stocks at Risk Indicator (SAR) calculation results at Member State level – proportion of landings made by fleet segments landing 0 to 5 stocks at risk. For example, in 2016 fleets which landed 0 stocks at risk accounted for 12.3% of landings values of the Danish fleet.

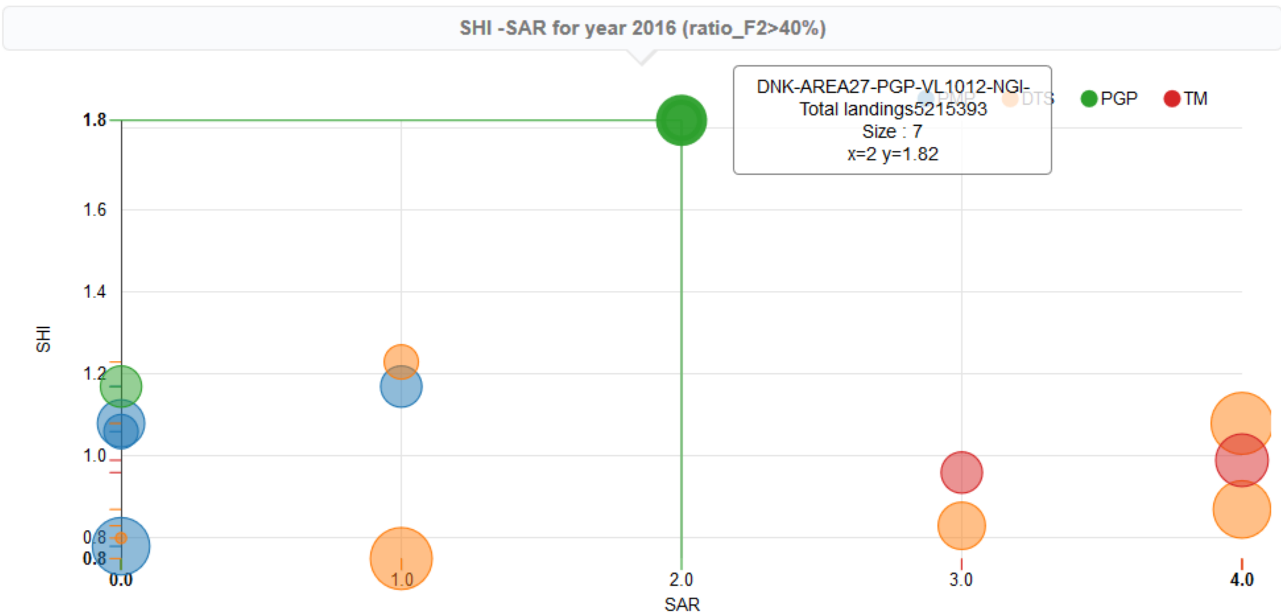

Figure 4.2.4.6 - Results of Sustainable Harvest Indicator (SHI) and Stocks at Risk (SAR) indicator calculation results for the Danish fleet in AREA27, reference year 2016. Only SHI calculation results where more than 40% of the annual value of landings came from

assessed stock (ratio_F2>40%) are shown. Users can choose to restrict the display to a particular fishing technique by clicking on the relevant symbol in the legend.

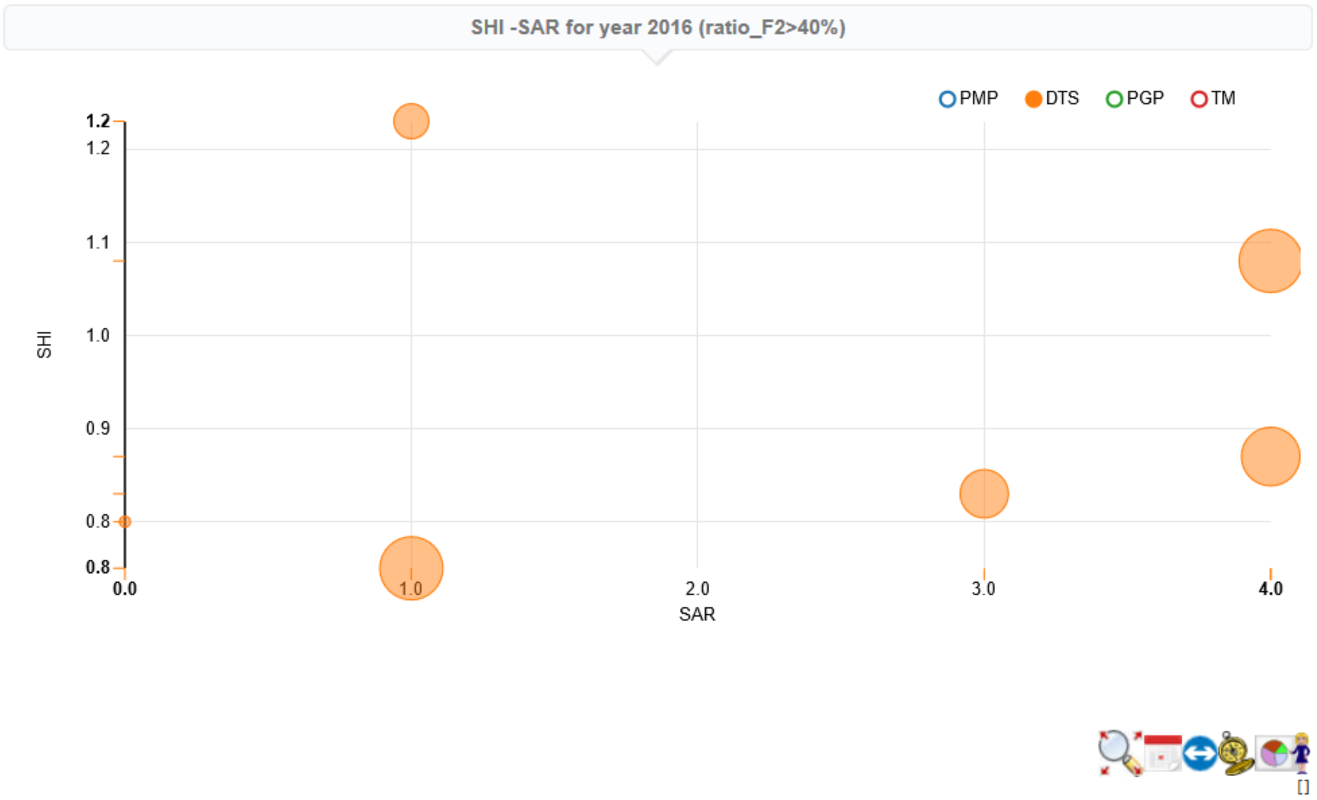

Figure 4.2.4.7 - Results of Sustainable Harvest Indicator (SHI) and Stocks at Risk (SAR) indicator calculation results for the Danish DTS working in AREA27, reference year 2016. Only SHI calculation results where more than 40% of the annual value of landings came from assessed stock (ratio_F2>40%) are shown. Users can select a particular bubble to access information for the relevant fleet segment.

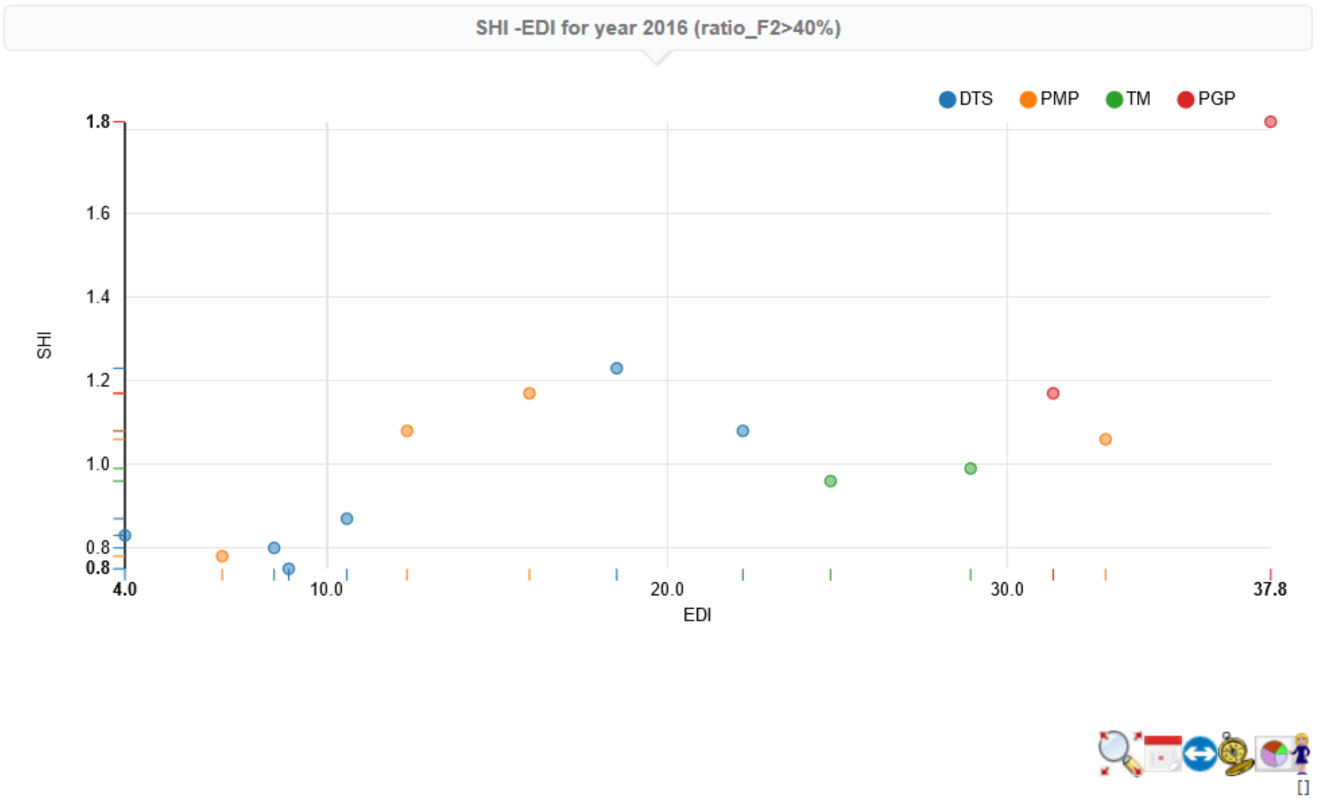

Figure 4.2.4.8 - Results of Sustainable Harvest Indicator (SHI) and Economic Dependency Indicator (EDI - Part of the landings values based on overexploited stocks harvest) indicator calculation results for the Danish fleet operating in Area 27, reference year 2015. Only SHI calculation results where more than 40% of the annual value of landings came from assessed stock (ratio_F2>40%) are shown. Users can choose to restrict the display to a particular fishing technique by clicking on the relevant symbol in the legend.

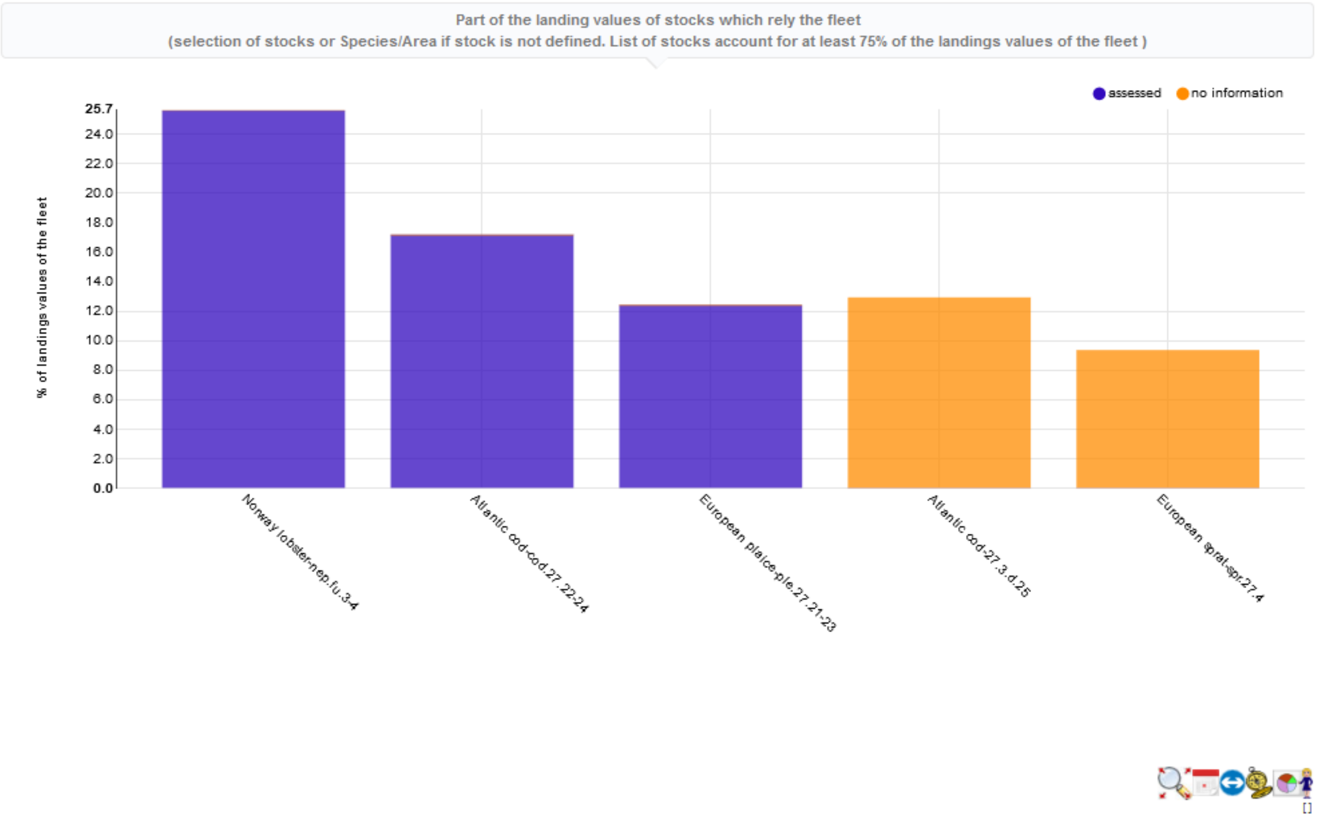

Figure 4.2.4.9 - Results for the new indicator TOR4 for Danish fleet DNK-AREA27-DTS-VL1012-NGI 5 species showed represents 75% of the landing values of the fleet and the blue ones are assessed and we have values of F/Fmsy. For orange species they are not included in the SHI calculation. If we want to improve the SHI coverage we first have to deal with stock assessment for these orange species. It's a way to highlight lack of knowledge.

3.3 Methods of Calculating Indicators and Trends

3.3.1 Sustainable Harvest Indicator (SHI)

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the sustainable harvest indicator is a measure of how much a fleet segment relies on stocks that are overfished. Here, "overfished" is assessed with reference to F_{MSY} values over time (F / Fmsy > 1), and reliance is calculated in economic terms (landed value). Where F_{MSY} is defined as a range, exceeding the upper end of the range is interpreted as "overfishing". Values of the indicator above 1 indicate that a fleet segment is, on average, relying for its income on fishing opportunities which are structurally set above levels corresponding to exploitation at levels corresponding to MSY. According to the 2014 Balance Indicator Guidelines this could be an indication of imbalance if it has occurred for three consecutive years. Shorter time period should be considered in the case of small pelagic species.

A detailed description and discussion of the methodology can be found in the STECF report 15-02. According to the 2014 Balance Indicator Guidelines the SHI is calculated for each national fleet segment (or cluster of segments dependent on the information provided by Member States via the economic data call), using the following formula:

$$\frac{\sum_{i=1}^{i=n} V_i \frac{F_i}{Fmsy_i}}{\sum_{i=1}^{i=n} \sum V_i}$$

In which, Fi is the fishing mortality available for stock i from scientific assessments (e.g. ICES, STECF, GFCM, ICCAT, IOTC advice) and Vi is the value of landings from stock i. Data on Fi (mean F) and F_{MSY} for fish stocks found in Area 27 were obtained from the ICES online database, a database of stock assessments output summaries (http://ices.dk/marine-data/tools/Pages/stock-assessment-graphs.aspx/). For Area 37 output from assessments carried out by STECF working group was compiled by JRC (https://stecf.jrc.ec.europa.eu/dd/medbs/ram). In addition information on F/Fmsy was scrutinized from GFCM Stock Assessment Forms (http://www.fao.org/gfcm/data/safs/en/) kindly provided by GFCM secretariat. Information on tuna / tuna-like species was obtained from the ICCAT (http://www.iccat.es/en/) and IOTC website (http://www.iotc.org/). In addition, we considered stocks fished by European fleets in NAFO area (www.nafo.int) as well as in SPRFMO (e.g, jack mackerel, www.sprfmo.int). The full indicator time series (2009-2016) was updated based on the most recent assessments available (2017 is most cases) and F_{MSY} point estimates. Ranges for F_{MSY} have been estimated by ICES for a number of stocks but have not been officially adopted for management in most cases at the time the working group met. Therefore, the SHI is based on the F_{MSY} point estimates only.

Landings data are in many cases not available at species level and often more than one stock is present in a certain area. Sometimes the genus code is used in logbooks, and it covers more than one species for example RED for Sebastes spp (it covers for REB *Sebastes mentella* and REG *Sebastes norvegicus*). STECF EWG 17-08 decided to use the last five years of landings data provided in the ICES advice sheets at the stock level to estimate the proportion of each stock in the DCF landing's data. STECF 18-14 applied the same approach. The use of data from the ICES database is necessary since data reported under the DCF do not contain landings from shared stocks by non-EU fishing fleets.

For the Mediterranean Sea, stocks may be assessed either as belonging a single or multiple GSAs and in such cases more than one assessment may be carried out. In such cases to associate a landings value to the F/F_{MSY} estimate for each stock assessment, we simple divide the total landings value reported for the combined GSAs by the number of assessments.

For example, for deep-water pink shrimp (DPS) in GSAs9, 10 and 11, two assessments are carried out; one for DPS in GSA 10 and a second for DPS in GSAs 9, 10 and 11 combined. Therefore, 50% of the total landings value from GSA 10 is associated with the value of F/F_{MSY} resulting for the GSA 10 assessment and 50% to that for GSAs 9,10 and 11. For GSA 9 and 11, landings values are associated with F/F_{MSY} from the merged GSAs(9,10 and 11) stock assessment. The stocks to which such a procedure has been applied are listed in Table 3.3.1.1.

Table 3.3.1.1 - Stock assessed both by combined GSAs and single GSA at STECF EWGs.

ANE	ane-gsa09 ane-gsa09_10_11
DPS	dps-gsa09 dps-gsa09_10_11
DPS	dps-gsa09_10_11 dps-gsa10
DPS	dps-gsa17_18 dps-gsa17_18_19
HKE	hke-gsa01_03 hke-gsa01_05_06_07
hke	hke-gsa01_03 hke-gsa02_03_04_05
hke	hke-gsa09 hke-gsa09_10_11
MTS	mts-gsa17 mts-gsa17_18
MTS	mts-gsa17_18 mts-gsa18
MUT	mut-gsa17 mut-gsa17_18
MUT	mut-gsa17_18 mut-gsa18
PIL	pil-gsa01 pil-gsa01-03

A detailed overview of the values for splitting the stocks are provided in Annex IV of the present report.

EWG 18-14 considers that this methodology should be refined (e.g. annual splitting values could be calculated / splitting values could be calculated at MS level) after peer review by a larger number of experts with expertise in the various geographical regions for which the biological indicators are calculated.

The most important issues related to the calculation of indicator values discussed and addressed during the EWG 18-14 Prep and previous Prep. Meeting are outlined below:

- Stock Assessment Selection - The 2014 Balance Indicator Guidelines state the calculation of the SHI indicator should take into account '*the most recent value of fishing mortality available from scientific assessments'*. The EWG 18-14 Prep. Meeting discussed the approach which should be taken in the absence of recent, updated stock assessments, and agreed that the SHI should take into account all stocks for which the most recent assessment was undertaken in 2014 or more recently.

- F_{MSY} Ranges - STECF 15-15 pointed out that proposals for stock management plans in the ICES area are currently taking into account F_{MSY} ranges. In such scenario SHI calculations would need to be revised to reflect the use of F_{MSY} ranges in management plans, a scenario for which the 2014 Balance Indicator Guidelines state: '*Where Fmsy is defined as a range, exceeding the upper end of the range is interpreted as "overfishing*"'.

- Norway Lobster FUs - Information from the ICES stock assessment graph database has been used to split the *Nephrops* landings in a given area into Functional Unit (FU) based estimates (if there was more than one FU in a given area). An average over the last five years' landings by FU has been used to calculate the splitting factors. Only *Nephrops* FUs with harvest rates and F_{MSY} values available (category 1 *Nephrops* stocks) are included in the calculation of the SHI indicator. Possible shortcomings of this method are described in section 3.4.2.

- ICES currently estimates F_{MSY} proxies for many data limited stocks (assessment category 3 and 4). For many of these stocks the state in relation to F_{MSY} proxy is given in the advice, however, the exact values for F_t/F_{MSY} (F_t = fishing mortality by year) are not presented and they are also missing in the assessment database. EWG 18-14 was not able to include these stocks in the SHI calculations. For future years, a recommendation to ICES to provide this information would be highly beneficial.

- Highly Migratory Stocks (ICCAT) - Stock status information for highly migratory species under the jurisdiction of the ICCAT was reviewed to determine which stocks could be incorporated in the SHI indicator since a stock assessment database with stock status data are not available from ICCAT. Stocks were selected according to the following criteria:
  - The most recent assessment was undertaken in 2014 or more recently;
  - A value for F/F_{MSY} was given in, or a value for F/F_{MSY} could be derived using the information given in the relevant ICCAT report.

  Using the above criteria, the following stocks were included in the SHI:
  - Eastern and Western Atlantic Bluefin tuna (BFT-EA and BFT-WA);
  - Mediterranean Swordfish (SWO MED);
  - North Atlantic Swordfish (SWO ATLN);
  - Atlantic Bigeye tuna (BET-ATL);
  - Mediterranean Albacore (ALB MED);
  - North Atlantic Albacore (ALB ATLN);
  - South Atlantic Albacore (ALB ATLS).

  For BET and for ALB ATLN, time series of F/F_{MSY} were derived from Figures 6 and 17 in reports available at:

https://www.iccat.int/Documents/SCRS/ExecSum/BET_ENG.pdf
https://www.iccat.int/Documents/Meetings/Docs/2016_ALB_REPORT_ENG.pdf

In the absence of appropriate information in the ICCAT reports, no time series for F/F_{MSY} were available or could be derived for BFT, SWO ATLN or ALB ATLS. In such cases, the point estimates for F/F_{MSY} were assumed to remain constant over the time series used to calculate the SHI.

- Mediterranean and Black Sea Biological Indicator Evaluation
  Assessment made during STECF working group was compiled by JRC and was provide for the SHI calculation. This was a useful source of information that would be a recurrent data collection. However, GFCM stock assessment was not included in this stock assessment database and during the preliminary working group 34 stocks assessment parameters were collected from the 53 Stock Assessment Forms scutinized from GFCM website and included in the SHI calculation.

- EWG 18-14 Prep. Meeting participants noted that the list of F/F_{MSY} ratios in the JRC database includes only the outcomes of the assessment carried out in the framework of STECF meetings. In order to further increase the accuracy of the SHI calculation for the Mediterranean, information on F and F_{MSY} timeseries was therefore extracted from reports of the GFCM Working Group on Stock Assessment of Demersal Species (WGSAD), the Working Group on Stock Assessment of Pelagic Species (WGSAP), as well as stock assessment forms available online (http://www.fao.org/gfcm/data/safs/en/). EWG 18--14 Prep. Meeting notes that this was a time consuming process since in many cases data has to manually be extracted from graphs provided in stock assessment forms, and considers that a single database with a complete list of updated assessments (as is available for the ICES region) should be required for the Mediterranean and Black Sea and for high migratory species especially looking for Tuna species assessments. For Tuna, F/F_{MSY} has been collected through ICCAT and IOTC but sometimes reports only provide short time series.
- In cases where stock assessments were available from more than one source, the more updated stock assessment was taken into account for SHI calculations. Where STECF and GFCM assessment were available and values of F and/or F_{MSY} differed, both assessments were retained and the SHI calculations were based on an average of the two assessment results.

Indicator Trends

SHI indicator trends were calculated according to the filters detailed below for the years 2011-2016 (Table 3.3.1.2).

Table 3.3.1.2 Methodology used to automatically generate comments on indicator trends.

Filter 1	Filter 2	Result
At least the last 2 consecutive years with	Slope* >0.5	Increasing
	Slope* <-0.5	Decreasing

data	-0.5=<Slope*=<0.5	No significant trend**
	Slope = 0	Flat / null
No data for 2014 and/or 2015		No conclusion (Null value)

* The slope is calculated with the intercept of the trend line
** A threshold of 5% is used to indicate whether the value is significant or not.

Instances where the SHI indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments are highlighted in the indicator table. EWG 18-14 considers that for such fleet segments SHI indicator values cannot be used meaningfully to assess the balance or imbalance. No trend analysis was performed for such fleet segments.

3.3.2 Stocks at Risk Indicator (SAR)

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the stocks at risk indicator is a measure of how many stocks are being affected by the activities of the fleet segment that are biologically vulnerable, i.e., stocks which are at low levels and are at risk of not being able to replenish themselves and which are either important in the catches of the fleet segment or where the fleet segment is important in the overall effects of fishing on the stock. If a fleet segment takes more than 10% of its catches taken from a stock which is at risk, or the fleet segment takes 10% or more of the total catches from a stock at risk, the 2014 Balance Indicator Guidelines suggest that this could be treated as an indication of imbalance.

A detailed description and discussion of the methodology can be found in the reports of STECF 15-02/15-15. According to the 2014 Balance Indicator Guidelines the SAR indicator aims to count the number of stocks that are exploited by a fleet segment and which are currently assessed as being at high biological risk. According the definition of the SAR indicator in the 2014 Balance Indicator Guidelines, a stock at risk (SAR) means a stock which is either:

a) assessed as being below the B_{lim}; or
b) subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis; or
c) subject to a fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited; or
d) a stock which is on the IUCN 'red list' or is listed by CITES.

AND for which either:

1- the stocks make up to 10% or more of the catches by the fleet segment; **or**
2- the fleet segment takes 10% or more of the total catches from that stock.

The meaning of these last two conditions are represented in Figure 4.3.2.1. Here, three stocks are exploited by five fleet segments, and landings data (in weights) are available for each stocks/fleet segment. The marginal sum of landings for each fleet segment is computed (by row) and used to scale each landing value to its relative contribution (in percentage) to the total landings for each fleet segment. In the meantime, the marginal sum of landings for each stock (by column) is computed and used to scale each landing value to its relative contribution (in percentage) to the total landings for each stocks. According to the SAR definition, all the cases in which either the relative contribution by fleet segment or by stocks is equal to or larger than 10% are selected and considered for the SAR. Then, the value of the SAR for each fleet segment corresponds to the number (if any) of the stocks over the threshold (highlighted in orange) and listed as “at risk”. In the example of Fig. 4.3.2.1, if all the stocks (A, B, and C) are defined “at risk”, the Fleet segments 1 and 2 will have a SAR=1, while the Fleet segments 2-5 will have a SAR=2.

For Preparatory EWG 18-14, more than 270 stocks were examined, of which 153 were considered at risk for at leat one year of the time period 2009-2016. The total number of Stocks as Risk increased from 2012 to 2015, mainly due to the introduction of new fishing regulation texts including some fishing prohibition to data limited species with scientific concerns. The slight decrease of number of stocks at risk since 2015 is mainly due to some biological enhancement of SSB for stocks assessed and managed (Figures 3.3.2.1-3).

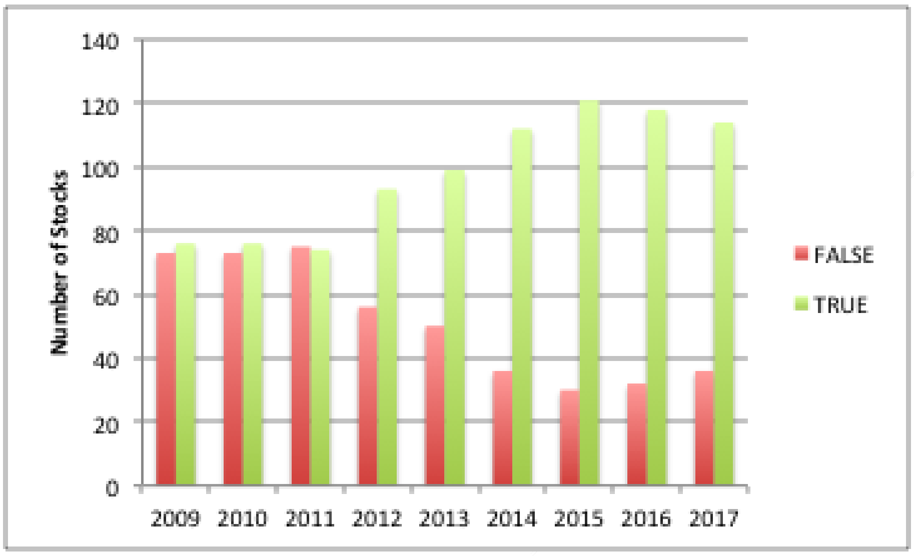

Figure 3.3.2.1 - Distribution of the number of SAR per year (TRUE = Stock is considered at risk; FALSE = Stock is not considered at risk).

For 2017, about a quarter of the stock were selected based on quantitative data (SSB/B lim), more than half of them due to some fishing regulation texts and the 20% remaining were linked to some listing in Interntaion Convention (IUCN or CITES).

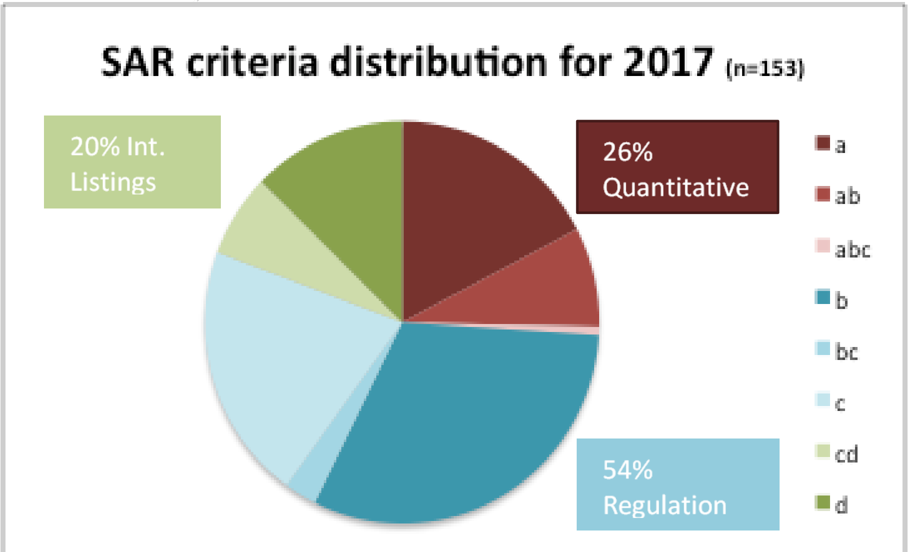

Figure 3.3.2.2 - Distribution of SAR per selecting criteria (a to d) in 2017.

The same methodology described in the STECF 15-02 / 15-15 reports was applied by the expert selecting stocks for the calculation of the SAR. The calculation of the indicator was then carried out using a routine written in R. The script is designed to compute the SAR indicator value, for the temporal range defined by the input data, for each fleet segment, by crossing-checking landings data with a list of stocks-at-risk.

Landings (weights)

	Stock A	Stock B	Stock C	
FS1	25	3	3	31
FS2	2	30	0	32
FS3	11	0	100	111
FS4	3	10	30	43
FS5	7	75	0	82
	48	118	133	

Landings (% by FS)

	Stock A	Stock B	Stock C	
FS1	80.645	9.677	9.677	100.000
FS2	6.250	93.750	0.000	100.000
FS3	9.910	0.000	90.090	100.000
FS4	6.977	23.256	69.767	100.000
FS5	8.537	91.463	0.000	100.000

Landings (% by STOCK)

	Stock A	Stock B	Stock C	
FS1	52.083	2.542	2.256	
FS2	4.167	25.424	0.000	
FS3	22.917	0.000	75.188	
FS4	6.250	8.475	22.556	
FS5	14.583	63.559	0.000	
	100.000	100.000	100.000	

Cross-table FS-Stock

	Stock A	Stock B	Stock C	
FS1	1	0	0	
FS2	0	1	0	
FS3	1	0	1	
FS4	0	1	1	
FS5	1	1	0	

Figure 3.3.2.3. Example of pre-processing of landings data for the computation of the SAR indicator

The same methodology used for attributing landings data available at species level to stocks was used for the calculation of the SAR indicator (see section 4.3.1). The full list of stocks at risk identified for the assessed fleet segments in the reference year 2015 is presented in Annex IV.

<u>SAR R Script: Inputs</u>

Four sources of data are used as input for the calculation:

1. The full database of the DCF Landings by year, species, areas and fleet segment provided by the JRC;
2. The list of the stocks identified as "at-risk" for one (or more) of the conditions a) to b) in the previous definition. These stocks at risk are listed by year, stock code, FAO 3 alpha code and area.
3. The splitting table described for the SHI (see section 4.3.1) and used to estimate the proportion of each stock in the DCF landing's data.
4. The ICES database of stock distribution, which represents a reference for some steps of the computation and for the check of coherence of the other input data.

The R script firstly uses as input the DCF Landings database provided by the JRC (in csv format). The first step of the analysis is the re-shaping of landings data: records by species are transformed in records by stocks. This transformation is based on the splitting table mentioned above.

The list of the stocks as risk was organized as a 2-way matrix, in which each row corresponds to a stock identified by its code, the 3 alpha species code and the area of presence, while each column corresponds to a year of the analysis (see Table 4.3.2.1).

In this matrix, the code "ALL" identify stocks at risk for with respect to all the fishing techniques, whereas specific codes separated by commas are listed in other cases. Empty cells of the matrix correspond to stocks NOT at risk for a specific year.

Table 4.3.2.1 - Some sample rows of the SAR matrix input

fishstock	**species_code**	**sub_division_fao**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
sol.27.7a	**SOL**	27.7.a	ALL	ALL	ALL	ALL	ALL	ALL	ALL
sol.27.8ab	**SOL**	27.8.a	ALL					ALL	ALL
sol.27.8ab	**SOL**	27.8.b	ALL					ALL	ALL
gag.med	**GAG**	sa.1				LL, GNS, GEN	LL, GNS, GEN	LL, GNS, GEN	LL, GNS, GEN

SAR R Script: Version and Dependencies

The R script uses only two external packages:

- The openxlsx package available at CRAN (https://cran.r-project.org/web/packages/openxlsx/index.html). The package openxlsx requires the packages: methods, Rcpp (≥ 0.11.1), grDevices, stats, utils.
- The stringr package available at CRAN (https://cran.r-project.org/web/packages/stringr/index.html). The package stringr requires the packages: stringi (≥ 0.4.1), magrittr.

The R script can be used from basic R users and runs on different versions of R (not necessarily the latest release).

SAR R Script: Workflow

The workflow is summarized in Figure 3.3.2.1.

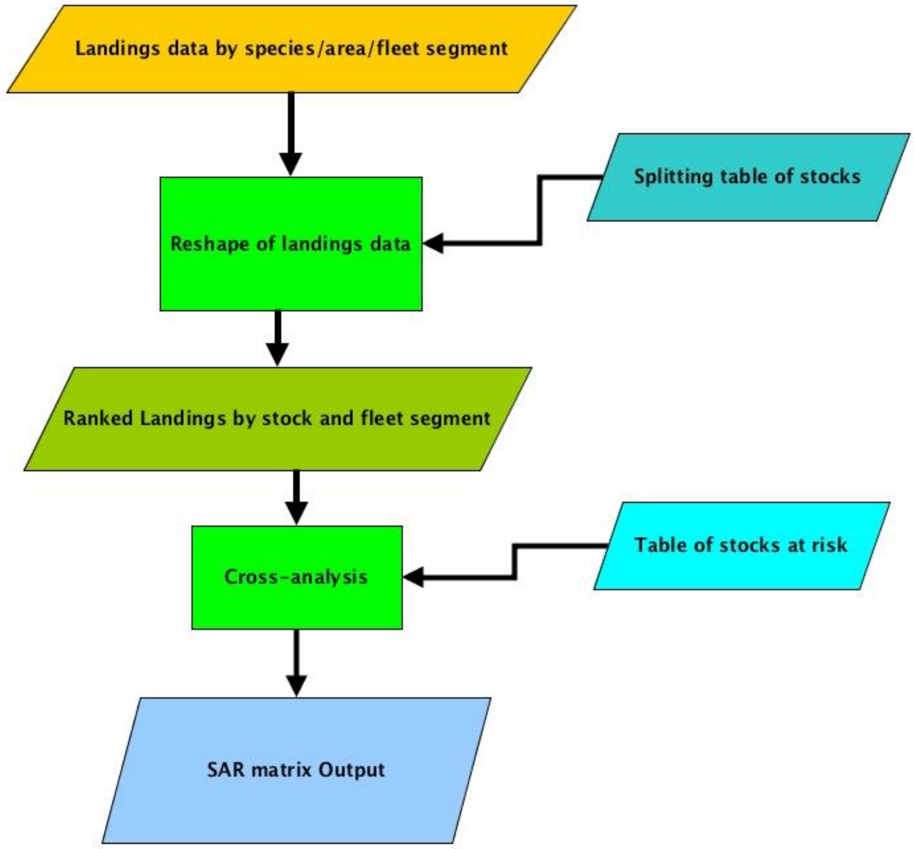

Figure 4.3.2.1. Workflow of the R script designed to calculate the SAR for EU fleet segments

SAR R Script: Outputs

The R script returns three objects:

1. A data frame, exported as a common Excel File (.xlsx), in long format, which reports the SAR value for each fleet segment and for each year. This is the main output of the script and contains the following fields:
    - Member.State: the three alpha code identifying the MS
    - Supra.Region: the area of activity of the fleet segment
    - Fishing.technique: the gear used
    - Vessel.length.group: the class of LOA
    - geo_indicator: Area
    - Year: the reference year
    - SAR: the value of the SAR indicator
    - Interpretation: the meaning of the SAR value
    - Fleet_Segment_name: an internal code generated by the JRC for data processing purposes
    - Cluster_name: the highest level of aggregation
    - Stock_at_Risk: the name of the stocks determining the SAR value
    - Category of the threshold: a : >10% fleet segment catch, b : > 10% stock catch or a,b : both 10 % threholds are fulfilled

An example of this output is provided in Table 3.3.2.2.

Table 3.3.2.1 - Some sample rows of the SARmatrix output.

Member State	Supra Region	Fishing.technique	Vessel.length.group	geo_indicator	year	SAR	Interpretation	Fleet_Segment_name	Cluster_name	Stock_at_Risk	Criteria
BGR	AREA37	DFN	VL1218	NGI	2010	2	Out of balance	BGR A37 DFN1218 °	AREA37 DFN VL1218	dgs-gsa29, tur-gsa29	a/a
BGR	AREA37	DFN	VL1218	NGI	2011	0	In balance	BGR A37 DFN1218 °	AREA37 DFN VL1218		
BGR	AREA37	DFN	VL1218	NGI	2012	0	In balance	BGR A37 DFN1218 °	AREA37 DFN VL1218		
FRA	AREA27	DTS	VL2440		2011	3	Out of balance	FRA A27 DTS2440		ory-nea, bli.27.5b67, cod.27.6a	b/b/b
FRA	AREA27	DTS	VL2440		2012	0	In balance	FRA A27 DTS2440 °	AREA27 DTS VL2440		
FRA	AREA27	DTS	VL2440		2013	0	In balance	FRA A27 DTS2440 °	AREA27 DTS VL2440		
PRT	AREA27	DFN	VL0010	NGI	2016	0	In balance	PRT A27 DFN0010			
PRT	AREA27	DFN	VL0010	P3	2009	-1	No stocks at risk found	PRT A27 DFN0010 P3			
PRT	AREA27	DFN	VL0010	P3	2010	-1	No stocks at risk found	PRT A27 DFN0010 P3			

The most important issues related to the calculation of indicator values discussed and (where possible) addressed during the EWG 18-14 Prep. Meeting and previous Prep. Meeting are outlined below:

- *Committee for Central for Eastern Atlantic (CECAF)* - Stock status information for pelagic species under the jurisdiction of the CECAF was reviewed to determine which stocks could be incorporated in the SAR indicator. Selection of stocks for inclusion in the SAR was according to the criteria specified in the 2014 Indicator Guidelines, but restricted to those stocks for which the most recent assessment was in 2015 or more recent years. Cunene horse mackerel (*Trachurus trecae*) was included for calculating the SAR.

- When B_{lim} was not available a proxy of 0.4 SSB_{msy} were agreed to be used for some RFMO's stocks as for instance the inclusion of Striped Marlin (*Tetrapturus audax*) in IOTC.

- Where new species were added to the SAR list, the relevant geographical ranges were investigated and corresponding FAO fishing areas added to the Stock Description column in the 2016 SAR stock selection sheet.

- The main issues faced by the group during the EWG 18-14 Prep. Meeting were that in some cases the stock assessments had not yet been released and this would need to be updated with the new B_{lim} if available before the deadline the group's agreed deadline (26/07/2018). Moreover, stocks with B_{lim} were easily selected based on criterion (a) but in the case of criteria (b) and (d) in some cases the advice might be subject to interpretation. The group thus reviewed the available information and agreed the outcomes during preparatory meeting.

- Since 2016, ICES is on a review process of stock coding for auto-generation of advice sheets. The groups noticed that the cessation of the STECF Consolidated Review of Scientific Advice reports in 2014 caused difficulties for the compilation of stock advice, especially in OFR areas.
- The experts agreed to select only the "critically endangered" (CR) fish species listed on the IUCN Red list as stocks at risk for the SAR calculation, in order to be consistent with the previous years. However, inclusion of fishes under "endangered" (EN) category would make sense tob e included too.
- New stocks assessed at a smaller scale than the spatial aggregation of the DCF landings data available to the EWG were considered during the preparatory EWG 17-08 in order to define a splitting rule for such cases (e.g.: cod stock in Artic cod.27.1-2-coast, Cod (*Gadus morhua*) in subareas 1 and 2 (Norwegian coastal waters cod) located in 27.21.D coastal waters only).
- SAR definition criteria "c" includes some EC Regulations for fishing opportunity. In the present EWG the coding system was used to distinguished gear prohibition for some stocks. However the temporal measures listed in such Regulations cannot be included in the SAR selection (eg. Porkupine bank closure from 01-31 May).
- The groups stressed that the information on SAR criteria "b" and "c" are still heterogeneous from the various relevant reports and selection of stocks still dependent on interpretation, with the exception of criteria "a" and "d".
- The group highlight the impossibility to perform properly the calculation for some OFR stocks. Only the first threshold calculation can be performed (the stocks make up to 10% or more of the catches by the fleet segment) but the second one is partial (the fleet segment takes 10% or more of the total catches from that stock.) considering that the EWG does not have access to the total catch of OFR stocks.

<u>Indicator Trends</u>

EWG 18-14 agreed with the conclusions reached in the STECF 15-02 / 15-15 reports that calculation of trend for SAR indicator is not relevant. Considering that SAR selection is based on both quantitative or qualitative data and is calculation produce a binary value after threshold selection, it would be incorrect to produce a trend.
Falling that, the group decided to produce an overview table of the SAR indicator per year and areas (see table here: https://stecf.jrc.ec.europa.eu/reports/balance).

3.3.3 Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the Return on Investment (ROI) or Return on Fixed Tangible Assets (RoFTA) indicator compares the long-term profitability of the fishing fleet segment to other available investments. If this value is smaller than the low-risk long term interest rates available elsewhere, then this suggests that the fleet segment may be overcapitalised. If the return on investment or net profit is less than zero and less than the best available long-term risk-free interest rate, this is an indication of long-term economic inefficiency that could indicate the existence of an imbalance.

Note: Indicators are not calculated if one or more of the essential cost and income items were not provided e.g. Net profit is not calculated if depreciated replacement value was not provided

ROI (also referred to as capital productivity) is the return of the investment divided by the cost of the investment. It measures profits in relation to the capital invested, i.e. indicates how profitable a sector is relative to its total assets. The higher the return, the more efficient the sector is in utilising its asset base.

When data on intangible assets (e.g. fishing rights, natural resource) are not available, the Return on Fixed Tangible Assets (ROFTA) is used as an approximation of ROI.

ROI is calculated as:

Net profit / (fleet depreciated replacement value + estimated value of fishing rights)

where,

Net profit = (Income from landings + other income + income from fishing rights) -
(crew wage + unpaid labour + energy + repair + other variable costs + non variable
costs + fishing rights costs + annual depreciation)

ROI is compared against a Target Reference point (TRP). For this exercise, the 5-year average of the risk free long-term interest rate for each MS was used.

RoFTA is calculated as

Net profit / (fleet depreciated replacement value);

where,

Net profit = (Income from landings + other income) - (crew wage + unpaid labour +
energy + repair + other variable costs + non variable costs + annual depreciation)

EWG 18-14 applied the criteria of the 2014 Balance Indicator Guidelines to comment on whether fleet segments where ‘in balance or ‚out of balance‘. When the indicator value was less than the interest rate, but greater than zero the comment, not sufficiently profitable‘ was used.

Since ROI is only available for countries that provide data on fishing rights (income, costs and estimated valu of fishing rights), and RoFTA is available for all MS except Greece, analysis was mainly based on RoFTA values.

<u>Indicator Trends</u>

Trends were calculated according to the filters detailed below for the years 2011 – 2016 (Table 3.3.3.1).

Table 3.3.3.1 Methodology used to automatically generate comments on indicator trends.

Filter 1	Filter 2	Result
At least the last 2 consecutive years with data	Slope* >0.05	Increasing
	Slope* <-0.05	Decreasing
	-0.05=<Slope*=<0.05	No significant trend**
	Slope = 0	Flat / null
No data for 2014 and/or 2015		No conclusion (Null value)

* The slope is calculated with the intercept of the trend line / the first value of the trend (a/i0)
** A threshold of 5% is used to indicate whether the value is significant or not.

3.3.4 Ratio Current Revenue and Break-Even Revenue (CR/BER)

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the ratio between current revenue and break-even revenue measures the economic capability of the fleet segment to keep fishing on a day-by-day basis: does income cover the pay for the crew and the fuel and running costs for the vessel? If not, there may be an imbalance. If the ratio between current revenue and break-even revenue is less than one, this is an indication of short-term economic inefficiency that could indicate the existence of an imbalance.

Current revenue to break-even revenue ratio (CR/BER) is calculated as:

Current revenue (CR) / Break Even Revenue (BER)

In which:
CR = income from landings + other income
BER = fixed costs / (1-[variable costs / current revenue])

In which:
Fixed costs = non variable costs + annual depreciation
Variable costs = crew wage + unpaid labour + energy costs + repair costs + other variable costs

As for the ROI or RoFTA indicator, fleet segments frequently need to be grouped together in clusters in order to deliver economic data that does not breach confidentiality requirements. Fleet segments should only be clustered when the number of vessels in the fleet segment is too low to ensure confidentiality of sensitive economic data. As economic data are often only provided by the main fleet segment contained in the cluster, the other minor fleet segments in the cluster may not contain any data.

<u>Indicator Trends</u>

Trends were calculated according to the filters detailed below for the years 2011 – 2016 (Table 3.3.4.1).

Table 3.3.4.1 Methodology used to automatically generate comments on indicator trends.

Filter 1	Filter 2	Result
At least the last 2 consecutive years with data	Slope* >0.05	Increasing
	Slope* <-0.05	Decreasing
	-0.05=<Slope*=<0.05	No significant trend**
	Slope = 0	Flat / null
No data for 2014 and/or 2015		No conclusion (Null value)

* The slope is calculated with the intercept of the trend line / the first value of the trend (a/i0)
** A threshold of 5% is used to indicate whether the value is significant or not.

3.3.5 The Inactive Fleet Indicators

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the Vessel Use Indicators describe how intensively the ships in a fleet segment are being utilized. One of these Vessel Use Indicators is the Inactive Fleet Indicator, which describes the proportion of vessels that are not actually active at all (i.e. that did not fish at any time in the year).

The inactive vessels are split according to length classes. For each subgroup, the number of vessels, total GT and kW were provided per year. If the proportion of inactive vessels is more than 20% (in number or in GT or in kW) within a MS, this could indicate some technical inefficiency.

<u>Indicator Trends</u>

Trends were calculated according to the filters detailed below for the years 2011 – 2016 (Table 3.3.5.1).

Table 3.3.5.1 Methodology used to automatically generate comments on indicator trends.

Filter 1	Filter 2	Result
At least the last 2 consecutive years with	Slope* >0.05	Increasing
	Slope* <-0.05	Decreasing

data	-0.05=<Slope*=<0.05	No significant trend**
	Slope = 0	Flat / null
No data for 2014 and/or 2015		No conclusion (Null value)

* The slope is calculated with the intercept of the trend line / the first value of the trend (a/i0)
** A threshold of 5% is used to indicate whether the value is significant or not.

3.3.6 The Vessel Use Indicator

According the 2014 Balance Indicator Guidelines (COM 2014, 545 final), the 'Vessel Use Indicators' describe how intensively the ships in a fleet segment are being utilised. One of these Vessel Use Indicators is the Vessel Utlilisatio Indicator, also known as the Vessel Utilisation Ratio (VUR). This indicator concerns the average activity levels of vessels that did fish least once in the year, taking account of the seasonality of the fishery and other restrictions. Under normal conditions, it can be expected that 10% or less of the vessels in a fleet segment should be inactive, which could be due to major repairs, refits, conversions or pending sales and transfers. If more than 20% of the fleet segment is recurrently inactive or if the average activity level of vessels in a fleet segment is recurrrently less than 70% of the potential, workable activity of comparable vessels, this could indicate technical inefficiency, that may reveal the existence of an imbalance, unless it can be explained by other reasons, such as unexpected climatic or man-made events or emergency measures as foreseen in the CFP.

Two sets of values for this indicator were included in the balance indicator tables prepared by JRC: VUR per fleet segment based on max DAS (Days At Sea) provided by MS, and VUR per fleet segment based on a common max DAS of 220. In cases were MS does not provided the max DAS, 220 DAS is applied as an alternative.

Indicator Trends

Trends were calculated according to the filters detailed below for the years 2011 – 2016 (Table 3.3.6.1).

Table 3.3.6.1 Methodology used to automatically generate comments on indicator trends.

Filter 1	Filter 2	Result
At least the last 2 consecutive years with data	Slope* >0.05	Increasing
	Slope* <-0.05	Decreasing
	-0.05=<Slope*=<0.05	No significant trend**
	Slope = 0	Flat / null
No data for 2014 and/or 2015		No conclusion (Null value)

* The slope is calculated with the intercept of the trend line / the first value of the trend (a/i0)
** A threshold of 5% is used to indicate whether the value is significant or not.

3.4 Indicator Issues, Problems and Caveats

3.4.1 General Considerations

In line with the meeting TOR EWG 18-14 considered the technical, economic and biological indicators contained in the 2014 Balance Indicator Guidelines (COM 2014, 545 final), and commented on the balance or imbalance for the fleet segments provided according to the criteria of the guidelines.

The group could not assess in any detail the reliability of the data and indicator values which were made available in the limited time available. For biological indicators several errors were noted and corrected during the EWG 18-14 Prep. Meeting as well as during EWG 18-14, but it was not possible to fully assess the reliability of the data that were used to calculate indicator values. Instead, additional information on, for instance, the coverage of the indicator was provided (see section 3.2.3). Further checking and/or peer review by experts from a wider range of Member States would thus have been appropriate prior to using the indicator values for the purpose of the EWG. For the technical and economic indicators, it was assumed that the 2018 AER EWGs 18-03 and 18-07 had already quality checked the data. In some cases, the assessment of the economic indicators was made difficult because of the use of inconsistent clustering of fleet segments over time by some MS.

Comments on whether specific fleet segments are in or out of balance with their fishing opportunities were made by EWG 18-14 based on the 2014 Balance Indicator Guidelines as requested by the TOR. The EWG nevertheless recognises and acknowledges that deciding whether a fleet segment is in, or out of balance with its fishing opportunities is a judgement which must include consideration of political aims and preferences and also depends on the individual characteristics of fleet segments, communities and fisheries. Such a judgement call should ultimately be made by fisheries management decision makers with relevant regional expertise.

Comments on indicator trends were automatically generated using a series of filters. The EWG considers that such automatically generated filters give better consistency than asking experts to comment on trends. EWG 18-14 considers that the definitions and thresholds used should in future be tested in more detail. Indicator specific methods may in future increase the accuracy of indicator trends, for instance the use of a moving average for the economic indicators could be considered due to the high level of fluctuations in some indicator values.

3.4.2 Biological Indicator Considerations

General issues, problems and caveats that affect the overall reliability of the biological indicators specified in the 2014 Balance Indicator Guidelines have already been highlighted in the STECF 15-02, 15-15, and 16-09 reports, and a summary of proposed actions was presented in Annex I of STECF 16-09. To avoid repetition caveats which were already discussed by previous EWGs are not repeated here. With regards to the efficiency of the indicator calculation process EWG 18-14 observes that a database where stock assessment data coming from all RFMOs is still lacking. Moreover, the cessation of the STECF Consolidated Review of Scientific Advice reports in 2014 caused difficulties for the compilation of stock advice, especially in the case of OFR areas. Another problem for the calculation of the biological indicators arises from the aggregated species groups (see Annex II).

3.4.2.1 Sustainable Harvest Indicator (SHI)

STECF stock assessment data were extracted from a database supplied by the JRC. In order to further increase the accuracy of the SHI calculation for the Mediterranean, information on F and F_{MSY} timeseries was in addition extracted from reports of the GFCM Working Group on Stock Assessment of Demersal Species (WGSAD), the Working Group on Stock Assessment of Pelagic Species (WGSAP), as well as stock assessment forms available online (http://www.fao.org/gfcm/data/safs/en/; Table 3.4.2.1). GFCM stock assessment information from the Black Sea was for the first time integrated into the calculation of biological indicators by EWG 18-14.

EWG 18-14 Prep. Meeting notes that this was a time consuming process since in many cases data has to manually be extracted from graphs provided in stock assessment forms, and considers that a single database with a complete list of updated assessments (as is available for the ICES region) should be required for the Mediterranean and Black Sea and for high migratory species especially looking for Tuna species assessments. For Tuna, F/F_{MSY} has been collected through ICCAT and IOTC, but sometimes reports only provide short time series.

In cases where stock assessments were available from more than one source, the more updated stock assessment was taken into account for SHI calculations. Where STECF and GFCM assessment were available and values of F and/or F_{MSY} differed, both assessments were retained and the SHI calculations were based on an average of the two assessment results.

A further difficulty encountered by the EWG 18-14 Prep. Meeting participants was the fact that some recent stock assessment outcomes are available for both single and combined GSAs. For example, the spottail mantis shrimp (*Squilla mantis*) stock was assessed by combining GSAs 17-18 by STECF, but using data from GSA 17 only by GFCM. The SHI estimates took into account both assessments. EWG 18-14 notes that the species was not analyzed in the framework of StockMed project and there is no evidence that the combined assessment would better reflect the status of the stock.

Table 3.4.2.1 - Source of updated (year of assessment 2017) stock assessment data for Mediterranean (Area 37) fleet segment SHI calculations.

Species Code	GSA	Assessment Source	Species Code	GSA	Assessment Source
ane	6	GFCM	mut	18	GFCM
ane	17-18	GFCM	mut	22	GFCM
ara	5	GFCM	pil	17-18	GFCM
ara	6	GFCM	sol	17	GFCM
ars	9	GFCM	tur	29	GFCM
ctc	17	GFCM	whg	29	GFCM
dps	5	GFCM	ane	6	STECF
dps	6	GFCM	ane	9-11	STECF
dps	10	GFCM	ane	17-18	STECF
dps	12-16	GFCM	ane	22-23	STECF
dps	17-18	GFCM	ane	29	STECF
hke	1-3	GFCM	dgs	29	STECF
hke	2-5	GFCM	dps	17-19	STECF
hke	6	GFCM	hke	19	STECF
hke	7	GFCM	hmm	29	STECF
hke	9	GFCM	hom	9-11	STECF

Species Code	GSA	Assessment Source	Species Code	GSA	Assessment Source
hke	12-16	GFCM	mts	17-18	STECF
hke	17-18	GFCM	mut	19	STECF
hke	22	GFCM	mut	29	STECF
hmm	29	GFCM	nep	17-18	STECF
mts	17	GFCM	pil	6	STECF
mur	5	GFCM	pil	17-18	STECF
mut	6	GFCM	pil	22-23	STECF
mut	7	GFCM	rjc	29	STECF
mut	10	GFCM	rpw	29	STECF
mut	15-16	GFCM	spr	29	STECF
mut	17	GFCM	tur	29	STECF
mut	17-18	GFCM	whg	29	STECF

3.4.2.2 Stocks at Risk Indicator (SAR)

Criterion ‘a’ specified for the identification of stocks at risk in the 2014 Balance Indicator guidelines was generally not applicable for most of the stocks in Mediterranean, since these stocks lack B_{lim} estimates. SAR selection in the Mediterranean and Black Sea was instead based mainly on criteria b – d of the 2014 Balance Indicator Guidelines. Whilst reviewing the SAR indicators it was clear that the interpretation of several criteria is subjective. The rationale of interpreting criterion b for the Mediterranean Sea should be further discussed by future EWGs / during a revision of the guidelines by the Commission as foreseen under ToR 6 of the present report.

Another issue discussed by experts was the fact that the SAR definition criterion 'c' necessitates the consideration of EC fishing opportunity regulations / GFCM Recommendations, which in some cases are gear specific. For example, according to Recommendation GFCM/36/2012/3, each Contracting member and non-Contracting Party (CPCs) shall ensure that catches of tope shark (*Galeorhinus galeus*) taken with bottom- set nets, longlines and tuna traps shall be promptly released unharmed and alive to the extent possible. EWG 18-14 continued using a coding system introduced by EWG 17-08 to distinguish gear prohibitions which are in place for such stocks. However, the temporal measures listed in such Regulations could not be included in the SAR selection criteria.

In some cases, the list of stocks at risk comprises units (defined by species name and distribution) are absent in both ICES table of stocks definitions and the Splitting table used to re-shape the input landings data. This issue forces the experts to consider these units as stand-alone entities, and generates unofficial stock codes. Moreover, it complicates the computation of the SAR indicator, which is largely based on the knowledge about stocks distribution.

3.4.2.3 Suggestion to improve the biological indicator calculation

Taking into account the issues faced by the group in the biological indicator calculation, EWG 18-14 reiterates the importance of implementing the a common database with the information required for the calculation of the SAR and SHI indicators by the JRC or by contracting experts using ad-hoc contracts, in order to avoid data source retrieval during the preparatory meeting. The preparatory meeting could instead be divided in a first part dedicated to the check of inconsistencies in biological indicator data input, and a second part dedicated to the output check.

Moreover, the group noticed that ICES is currently providing F_{MSY} proxy values for more and more of the Data Limited Stocks (DLS). This means that the SHI indicator may be calculated including information from these stocks. However, the actual values for current F divided by the F_{MSY} proxy (Ft/F_{MSY} proxy) are in most cases not yet provided by ICES, neither in the ICES advice sheets nor in the stock assessment database. The reason is that often the assessments still use just a survey index, while the determination of reference points is carried out e.g., with a production model and only the qualitative information on stock status is used for advice. Therefore, the information on the stock status of DLS stocks could not be used for this year's SHI calculations. The EWG 18-14 suggests starting a dialog with ICES to explore the possibility that information on Ft/F_{MSY} proxy is made available in the future, and to discuss for which stocks the information is robust enough given the uncertainties around these estimates.

More in general EWG 18-14 suggests that bilateral meetings between STECF/JRC and relevant RFMOs should be arranged in order to inform RFMOs about STECF Balance EWGs, improve coordination in general, and collaborate on the provision of accurate input data for the biological indicators in particular.

3.4.3 Economical and Technical Indicator Considerations

General issues, problems and caveats which affect the overall reliability of the economic and technical indicators specified in the 2014 Balance Indicator Guidelines have already been highlighted in the STECF 15-02 and 15-15 reports and in STECF 16-09, and one additional caveat discussed in some detail by EWG 18-14 is presented below.

<u>The economic indicators of ROI/RoFTA and CR/BER</u>

There are a number of issues with the economic indicators for assessment of balance, some of which have been highlighted in previous reports and some issues which have not. The two main economic indicators are return on investment (ROI)/return on fixed tangible assets (RoFTA) and current revenue against breakeven revenue (CR/BER). Historically, in STECF working groups on balance these two indicators were considered to indicate respectively the long term and short term economic performance of fleet segments. ROI/RoFTA was considered to be a long-term economic indicator as it incorporates opportunity costs while CR/BER was considered to be a short term indicator as it excluded opportunity and depreciation costs. There are a number of issues with this understanding of the indicators.

First, there is a timespan issue that in reality makes these indicators both short-term. Both of these indicators depend on the net and gross profit in the latest year of data, respectively. Therefore, for the ROI/RoFTA indicator the result is a short-term economic indicator based on net profit, or in other words the resource rent generated by the fleet segment. There are no long-term aspects to this result as it is an annual result which is subject to the annual performance. Consequently, the correlation between the results of both indicators is generally over 90% for all fleet segments analysed. There is hence clear redundancy in using this combination of indicators. A simpler economic indicator that informs of the short-term economic performance is net profit margin.

Second, there are no targets in the long-term for economic results of fishing fleets like there are for the biological indicators (Fmsy). The results of both economic indicators are compared to zero generation of resource rent in the case of ROI/RoFTA and zero gross profits for CR/BER. Clearly, these are not ambitious targets for EU fishing fleets.

3.4.3.1 Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

EWG 18-14 notes that different approaches are taken when estimating the ROI and/or RoFTA indicators by the Annual Economic Report (AER) and Balance expert working groups. The 2014 Balance indicator Guidelines specify that the indicator is to be compared against the 'low risk long term interest rate'. The guidelines further suggest to use the 'arithmetic average interest rate for the previous 5 years'. On the other hand, the AER uses the 'real interest rate' when calculating the Opportunity cost of Capital, which would then be used as the reference point if or when assessing ROI or RoFTA in the AER. EWG 16-09 participants considered the discussion of this issue presented in Annex 1 of the AER 2016, as well as the possible ways forward presented by AER 2016 participants. Until the 2014 Balance Indicator Guidelines are amended Balance EWGs are however not in a position to amend the manner in which the ROI and/or RoFTA indicators are calculated.

3.4.3.2 Ratio Current Revenue and Break-Even Revenue (CR/BER)

The *CR/BER* measures the economic capability of the fleet segment to keep fishing on a day-by-day basis. According to the 2014 Balance Indicator Guidelines, the *CR/BER* is calculated as: *CR/BER = Revenue / Break-Even Revenue*; where the *Revenue* considers income from landings and other income*, w*hile the *Break-Even Revenue* (*BER*) accounts for fixed and variable costs. However, the same Indicator Guidelines allow for the possibility to include the opportunity cost of capital and the depreciation costs in the estimation.

STECF 15-15 decided not to consider the opportunity cost of capital in the break even revenue calculations in order to differentiate from the ROI and RoTA indicators, and provide a more short-term approach. However, as mentioned in the introduction to this chapter, this indicator provides little extra information than the ROI/RoFTA given that both indicators use a measure of profitability in one year. The results of this indicator are generally the same as ROI/RoFTA and so serious consideration should be given to excluding its use in future works on balance.

EWG 18-14 reiterates the previous comment that due to the volatile nature of variable costs associated with fishing, the CR/BER indicator values may fluctuate considerably from one year to the next.

3.4.3.3 The Inactive Fleet Indicators

EWG 18-14 stresses again that especially in fleet segments with under 10 m vessels (small-scale coastal fleets), many vessels are only used part time and fishing is often not the only source of income. Therefore, this indicator needs to be treated with care and does not necessarily indicate that these fleet segments are not in balance.

Within the current data file provided by the JRC, EWG 18-14 notes that the inactive fleet indicators (by vessel numbers, GTs and kWs) estimated by length class do not provide appropriate measures of the inactivity level within the length class or each length class inactivity is measured as the percentage of the entire fleet rather than the percentage of inactivity within the length class. The current method allows identification of the length class that contributes most to the overall fleet inactivity. However, this method masks the level of inactivity within the length class. An alternative and more appropriate measure of the inactivity level within a length class can be obtained by dividing the number of inactive vessels in the class by the total number of vessels in the same length class. This alternative method could be provided in the data file alongside the current format.

Additionally, MS could comment in their fleet reports on the nature of the levels of inactivity within length classes and overall for the entire fleet in particular on whether the levels of inactivity are due to vessel registration processes at the national level or if these levels represent latent fishing capacity.

3.4.3.4 The Vessel Use Indicator

As for the inactive fleet indicator, EWG 18-14 notes that for the VUR indicator, the small-scale fleet should be treated differently due to the fact that many fishers are only working part-time or fishing is only one source of income.

3.5 Indicator Findings – Regional Overviews

3.5.1 Area 27 – Northeast Atlantic

Sustainable Harvest Indicator (SHI)

Out of 350 fleet segments active in 2016, landings in value have been provided aggregated in 308 fleet segments and SHI indicator values were available for 289.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 144 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 145 fleet segments for which, according to the 2014 guidelines, the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 72.02% of the total value of the landings in 2016 provided by MS. The values of the SHI for these fleet segments indicate:

- 103 fleet segments appear to be not in balance with their fishing opportunities;
- 42 fleet segments appear to be in balance with their fishing opportunities.

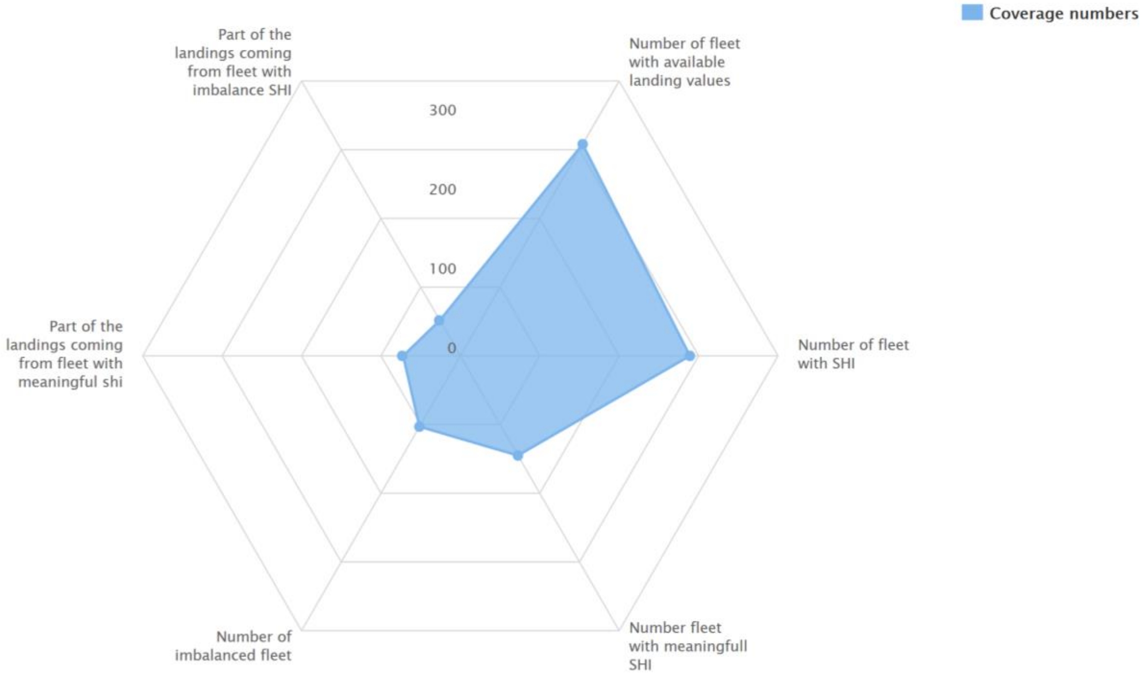

Figure 4.5.1.1. Diagram showing the SHI indicator information available for Area 27 in 2016.

Stocks at Risk Indicator (SAR)

SAR indicator was provided aggregated for 309 of the 350 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 222 fleet segments appear to be in balance with their fishing opportunities;
- 87 fleet segments appear to be not in balance with their fishing opportunities. The number of SAR stocks identified for these fleet segments were as follows:
    - 44 fleet segments with 1 SAR
    - 22 fleet segments with 2 SAR
    - 10 fleet segments with 3 SAR
    - 5 fleet segment with 4 SAR
    - 2 fleet segments with 5 SAR
    - 3 fleet segment with 6 SAR
    - 1 fleet segment with 7 SAR.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016, there are 528 active fleet segments in the Area 27 covering 15 EU countries. After clustering these amount to 273 segments.

The number of fleet segments for which the ROFTA indicator is available for 2016 is 224 and the number of segments for which trends are calculated is 212. Although for some countries ROI is available (RoI is available for fleet segments in 7 MS.), ROFTA is available for all countries and used for this regional analysis.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the RoFTA indicator values for the 224 fleet segments indicate that:

- 185 fleet segments appear to be in balance with their fishing opportunities.
- 32 fleet segments appear to be not in balance with their fishing opportunities;
- 7 fleet segments are classified as not sufficiently profitable.

For 157 segments an increasing trend is assessed for ROFTA while a decreasing trend is observed for 54 segments. No trends were assessed for 1 segment.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 224.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 17-08 notes that the CR/BER indicator values for the 224 fleet segments for which balance/out of balance was calculated indicate that:

- 191 fleet segments appear to be in balance with their fishing opportunities.
- 33 fleet segments appear to be not in balance with their fishing opportunities;

The Inactive Fleet Indicators

In the European inactive fleets in Area 27 there are 56 fleet segments with 8555 inactive vessels reported. 20 fleet segments show decreasing trend in the number of inactive vessels and 12 showed increasing trend, others with no clear trend.

The Vessel Use Indicator

In the Area 27 the number of fleet segments for which the Vessel Use Indicator is available is 208. According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for segments in the Area 27 indicate that:

- 113 fleet segments appear to be in balance with their fishing opportunities;
- 95 fleet segments appear to be not in balance with their fishing opportunities.

For 14 segments an increasing trend is assessed for Vessel Use Indicator while a decreasing trend is observed also for 12 segments.

3.5.2 Area 37 – Mediterranean and Black Sea

Sustainable Harvest Indicator (SHI)

Out of 216 fleet segments active in 2016, landings in value have been provided aggregated in 185 fleet segments and SHI indicator values were available for 170.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 78 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 92 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 54.79% of the total value of the landings in 2016 provided by MS, and were as follows

• 84 fleet segments may not be in balance with their fishing opportunities;

• 8 fleet segments may be in balance with their fishing opportunities.

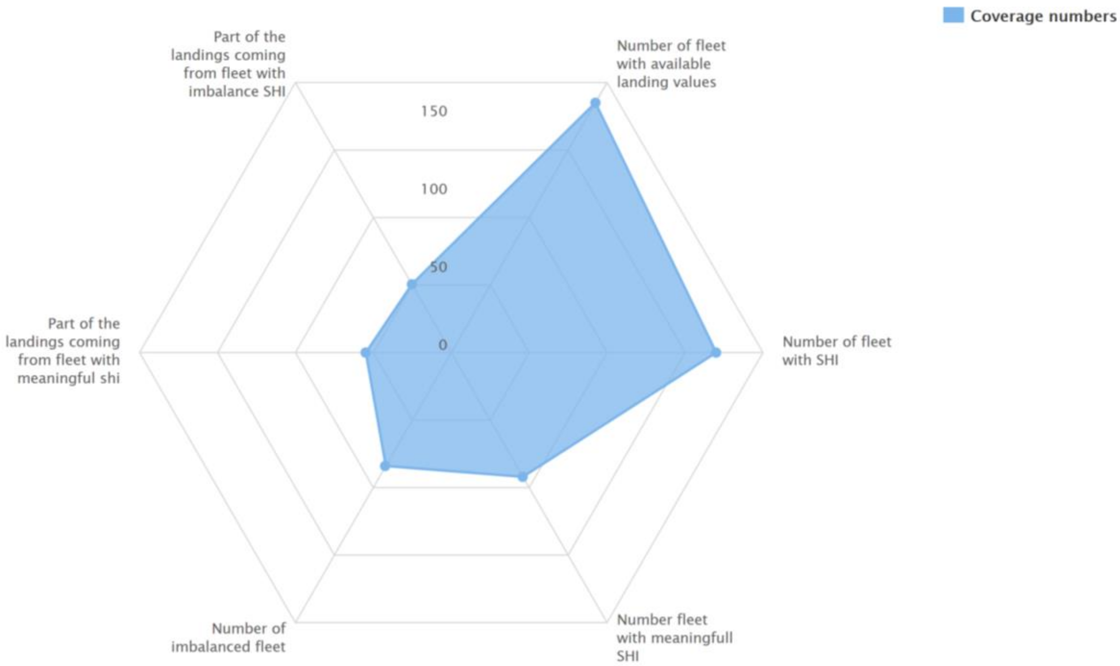

Figure 4.5.2.1. Diagram showing the SHI indicator information available for Area 37.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate that all fleet segments appear to be in balance with their fishing opportunities.

Return on Fixed Tangible Assets (RoFTA)

Out of 216 fleet segments active in 2016, landings in value have been provided aggregated in 185 fleet segments.

The number of fleet segments for which the *ROFTA* indicator is calculated in 2016 is 142, and trends are calculated for 128 fleet segments. In 83 segments increasing trend in *ROFTA* are estimated, while decreasing trends are observed in 45 segments.

According to the criteria of the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the overview of the RoFTA indicator values for the 142 fleet segments in Area 37, indicates that:

- 50 fleet segments appear to be not in balance with their fishing opportunities;
- 84 fleet segments appear to be in balance with their fishing opportunities;
- 8 fleet segments appear to be not sufficiently profitable.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is calculated in 2016 is 142, while trends are calculated in 128 of them. In 28 fleet segments in Area 37, decreasing trends are detected, whereas in 79 fleet segments the trends in *CR/BER* are increasing, and in 21 fleet segments no significant trends are detected.

According to the criteria of the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the overview of the RoFTA indicator values for the 142 fleet segments in Area 37, indicates that:

- 57 fleet segments appear to be not in balance with their fishing opportunities;
- 85 fleet segments appear to be in balance with their fishing opportunities.

Inactive Vessel Indicators

Inactive vessels are potential complement to the existing capacity of the fleets. Their returning to the active fleets has the potential to delay or hamper the measures of bringing overcapacity into line with the available fishing opportunities.

In 2016 there were 39 inactive fleet segments located in Area 37. Trends of the inactive vessels indicator were estimated in 38 fleet segments. An increasing trends were found in 7 fleet segments, 18 segments showed decreasing trends, while the remaining 13 segments showed no significant trends.

In Area 37 there were 6,376 inactive vessels reported in 2016, with 5,964 of them having LOA <12m. Hence only 6.5% of all inactive vessels had LOA >12m.

Inactive vessels registered in Croatia (2,422) dominated the total number of inactive vessels reported in Area37 in 2016 that made up to 38% of the total number of inactive vessels. In 2015 the number of inactive vessels registered in Croatia raised up to 3 times more than those in 2014. The number of inactive vessels in Croatia decreased by 50% in 2016 compared to 2015. The reason for this considerable fluctuation is explained by the national registration of about 3,500 vessels into the SSCF as professional fishing vessels that took place in 2015. Before these vessels have been registered as “subsistence” fishing vessels and thus have not been reported in fisheries statistics.

Vessel Utilization Ratio

In Area 37 the number of fleet segments for which the Vessel Utilization Ratio (VUR) is available is 119 in 2016. According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the VUR indicator values for segments in the Area 37 indicate that:

- 65 fleet segments appear to be in balance with their fishing opportunities;
- 54 fleet segments appear to be not in balance with their fishing opportunities.

Out of 119 active fleet segments, increasing trends in VUR were detected in 14 segments, decreasing trends - in 17 segments; 3 fleet segments had flat trends (0 slope), and 85 showed no significant trend.

3.5.3 OFR – EU Distant Waters and Outermost Regions

Sustainable Harvest Indicator (SHI)

Out of 54 fleet segments active in 2016, landings in value have been provided aggregated in 49 fleet segments and SHI indicator values were available for 33.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 18 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 15 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 40% of the total value of the landings in 2016 provided by MS. The values of the SHI for these fleet segments indicate:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 12 fleet segments appear to be in balance with their fishing opportunities.

In the period 2012-2016 the SHI indicator values considered meaningful to assess balance or imbalance showed no evident trend for 9 fleet segments.

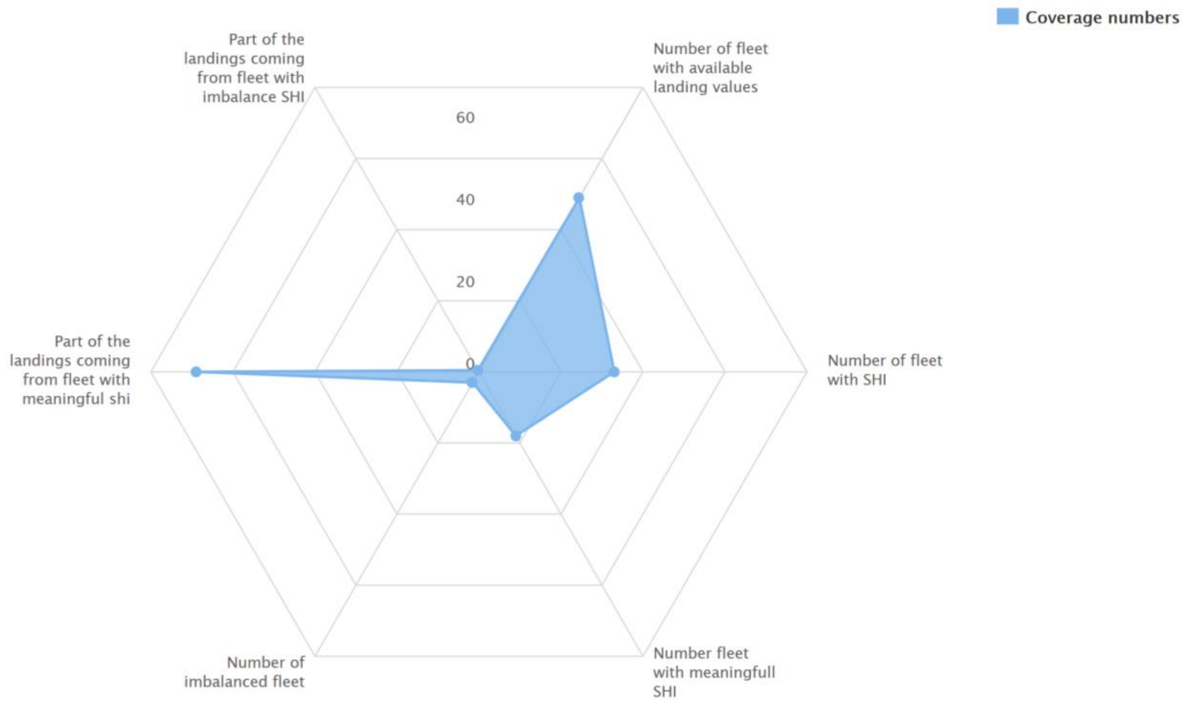

Figure 4.5.3.1 Diagram showing the SHI indicator information available for OFR.

Stocks at Risk Indicator (SAR)

SAR indicator was provided aggregated for 50 of 54 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 41 fleet segments appear to be in balance with their fishing opportunities;
- 9 fleet segments appear to be not in balance with their fishing opportunities. The number of SAR stocks identified for these fleet segments were as follows:
    - 8 fleet segments with 1 SAR
    - 1 fleet segment with 2 SAR.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In the OFR region there are 65 fleet segments in total: 54 active and 11 inactive segments. The 54 active fleet segments are aggregated in 42 clusters for which a RoFTA indicator is available for 30, of which 16 show trends.

According to the criteria in the 2015 Balance Indicator Guidelines EWG 18-14 notes that the RoFTA indicator values for the 30 fleet segments indicate that:

- 7 fleet segments appear to be not in balance with their fishing opportunities;
- 20 fleet segments appear to be in balance with their fishing opportunities;
- 3 fleet segments appear to be not sufficiently profitable.

For 9 segments an increasing trend is assessed for *ROFTA* while a decreasing trend is observed for 7 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

In the OFR region the number of fleet segments for which the *CR/BER* indicator is available is 30 with trends assessed for 16.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 30 fleet segments indicate that:

- 7 fleet segments appear to be not in balance with their fishing opportunities;
- 23 fleet segments appear to be in balance with their fishing opportunities.

Of the 16 segments with a trend assessed, for 5 segments a decreasing trend is shown, for 7 segments an increasing trend is shown while 4 segments show no trend.

The Inactive Fleet Indicators

In 2016, four countries (France, Italy, Lithuania and Portugal) reported 11 vessel length segments that had inactive vessels across a range of length groupings (*VL0010, VL1012, VL1218, VL1824, VL2440 and VL40XX)*.

In 2016, the fleet segments with the highest levels of inactivity within their national fleets in terms of vessels number are the *VL0010* group in France at 10.7%, the *VL0010* group in Portugal at 4.1% and the *VL40XX* group in Lithuania at 2.0%.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 36 and trends are available for 31 segments.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the OFR segments, indicate that of the 36 segments:

- 18 fleet segments appear to be not in balance with their fishing opportunities;
- 18 fleet segments appear to be in balance with their fishing opportunities.

For 7 segments an increasing trend is assessed for Vessel Use Indicator while a decreasing trend is observed for 2 segments and no trend is observed for 22 segments.

3.6 Indicator Findings – National Sections[6]

For biological indicator the information is provide by Area as applicable (27, 37, OFR), while for economic and technical ndicators the information is provided at member state level.

3.6.1 Belgium (BEL)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 10 fleet segments active in 2016, landings in value have been provided aggregated in 4 fleet segments and SHI indicator values were available for 4.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 2 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 2 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 83.43% of the total value of the landings in 2016 provided by MS, and were as follows

- 2 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 4 active fleet segments for which aggregated landings data was available in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 3 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 10 fleet segments in the Belgian fleet. After clustering these amount to 4 segments.

The number of fleet segments for which the *ROFTA* indicator is available for 2016 is 4 and the number of segments for which trends are calculated is 4.

[6] Complimentary data for SHI and SAR are available in ANNEXES III-V

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the RoFTA indicator values for the 4 Belgian fleet segments indicate that:

- 0 fleet segments appear to be not in balance with their fishing opportunities
- 4 fleet segments appear to be in balance with their fishing opportunities

For all 4 segments an increasing trend is assessed for *ROFTA*.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 4 Belgian fleet segments indicate that:

- 0 fleet segments appear to be not in balance with their fishing opportunities
- 4 fleet segments appear to be in balance with their fishing opportunities

For 3 segments an increasing trend is shown while the other segment shows no trend.

The Inactive Fleet Indicators

In 2016, 4 vessel length segments had inactive vessels (VL1012, VL1218, VL1824 and VL2440). These length classes are clustered into one segment (VL2440).

The total inactive Belgian vessels account for 11% of the total number of vessels, 5% of the total GT and 7% of the total kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 4 Belgian segments indicate that:

- 0 fleet segment appears to be not in balance with their fishing opportunities (0 segments below 12m and 0 above 12m);
- 4 fleet segments appear to be in balance with their fishing opportunities (0 segments below 12m and 4 above 12m).

For all 4 segments no trend is assessed for Vessel Use Indicator.

Data Issues

No major issues need to be reported.

3.6.2 Bulgaria (BGR)

Area 37

Sustainable Harvest Indicator (SHI)

Landings in value and SHI indicator values were available for all the 25 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 0 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 25 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 100.00% of the total value of the landings in 2016 provided by MS, and were as follows

- 25 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 25 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 18 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities;
- 6 fleet segments with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There were 25 fleet segments in the Bulgarian fleet in 2016. After clustering these amount to 17 segments.

The number of fleet segments for which the *ROFTA* indicator is available for 2016 is 16 and the number of segments for which trends are calculated is 16.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the ROFTA indicator values for the Bulgarian fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 9 fleet segments may appear to be in balance with their fishing opportunities;
- 3 fleet segments may appear to be not sufficiently profitable.

For eleven segments an increasing trend is assessed for *ROFTA* while a decreasing trend is assessed for the other five segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 16 and the number of segments for which trends are calculated is 16.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the Bulgarian fleet segments indicate that:

- 9 fleet segments appear to be not in balance with their fishing opportunities;
- 7 fleet segments appear to be in balance with their fishing opportunities.

For eleven segments an increasing trend is assessed for CR/BER while for five segments a decreasing trend is assessed.

The Inactive Fleet Indicators

In 2016, 4 vessel length classes had inactive vessels (*VL0006, VL0612, VL1218 and VL1824)*. The total inactive Bulgarian vessels account for 37% of the total number of vessels, 20% of the total GT and 27% of the total kW.

The fleet segments with the highest levels of inactivity are the *VL0612* group at 24% in terms of number of vessels and at 22% in terms of kW.

All length classes show a decreasing trend in terms of vessel numbers, GT and kW and only one segment, VL0612, may appear out of balance.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 17.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the Bulgarian segments indicate that:

- 8 fleet segments appear to be not in balance with their fishing opportunities;
- 9 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend is assessed for 2 fleet segments, a decreasing trend for 3 segments and the other 12 segments show no trend for the Vessel Use Indicator.

Data Issues

No major data issues were identified during the meeting. Differences between the value of landings and the total income still exist due to the use of different data sources.

3.6.3 Croatia (HRV)

Area 37

Sustainable Harvest Indicator (SHI)

Landings in value and SHI indicator values were available for all the 31 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 18 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 11 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 82.05% of the total value of the landings in 2016 provided by MS, and were as follows

- 9 fleet segments may not be in balance with their fishing opportunities;
- 2 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 31 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 31 fleet segments may be in balance with their fishing opportunities.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

After clustering the *CR/BER* indicator was available for 22 segments, of which:

- 3 appeared to be *in balance* with their fishing opportunities.
- 19 appear to be not in balance.

Trends were calculated for 18 segments, 5 showing a decreasing trend, 10 showed an increasing trend while 5 showed no trend.

The Inactive Fleet Indicators

Five vessel length segments (all Area 37) had inactive vessels: VL0006, VL0612, VL1218, VL1824, VL2440. These represented 31% of the total number of vessels, 31% of the total GT and 33% of the total kW. The fleet segments with the highest levels of inactivity were the VL0612 group with 16% of vessels inactive (9% GT, 18% kW), the VL0006 group with 13% of vessels inactive (2% GT, 4% kW), and the VL2440 group with 0.5% of vessels inactive (12% GT, 5% kW).

The Vessel Use Indicator

After clustering the vessel utilisation indicator was available for 23 segments, of which:

- 10 appeared to be *in balance* with their fishing opportunities,
- 13 appear to be not in balance*,* of which *10* are segments below 12 m in length and 3 are segments above 12 metres LOA.

Trends were calculated for 19 segments, of which:

- 0 displayed an *increasing trend*,
- 3 displayed a *declining trend*,
- 16 displayed *no trend.*

Data Issues

As regards to the 3,500 small-scale vessels which were transferred into the commercial SSCF in 2015, all these vessels fall under the polyvalent passive gears segment (PGP), but these fishers are not full-time engaged in the fishery and most of them had very limited activity in 2015 and 2016. It should be noted that economic and fishing activity data analysis for 2015 and 2016 for the PGP segment should be taken with caution, as the fleet was mostly inactive in 2015 and with limited activity in 2016 and 2017. It is expected that for 2017, after all remaining licences have been issued, and entire fleet segment shows its activity potential, the real potential of the segment shall be known. Therefore, it is expected that economic and fishing activity data analysis of the segment shall be improved in the following years.

3.6.4 Cyprus (CYP)

Area 37

Sustainable Harvest Indicator (SHI)

Landings in value and SHI indicator values were available for all the 6 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 5 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG 18-14 notes that for the 1 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 29.56% of the total value of the landings in 2016 provided by MS, and were as follows

- 0 fleet segments may not be in balance with their fishing opportunities;
- 1 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 6 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 6 fleet segments may be in balance with their fishing opportunities.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

Data exists for 10 segments while the number of fleet segments for which the *CR/BER* indicator is available is 6.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 6 Cypriot fleet segments indicate that:

- 6 fleet segments appear to be not in balance with their fishing opportunities;
- No fleet segments appear to be in balance with their fishing opportunities.

Three segments show an increasing trend while 3 segments show no trend.

The Inactive Fleet Indicators

In 2016, 3 Cypriot fleet segments were considered inactive (VL0006, VL0612 and VL1218).

The total inactive vessels account for 8% of the number of Cypriot vessels, 6% of the total GTs and 8% of the total kW of the Cypriot fleet.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator (*VUR220*) is available is 6.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 6 Cypriot segments indicate that:

- 5 fleet segments appear to be not in balance with their fishing opportunities;
- 1 fleet segment appears to be in balance with their fishing opportunities.

For all 6 segments no trend in the Vessel Use Indicator (*VUR220*) is observable.

<u>Data Issues</u>

According to the AER 2018 no major issues require reporting.

3.6.5 Denmark (DNK)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 19 fleet segments active in 2016, landings in value have been provided for all 19 fleet segments and SHI indicator values were available for 18.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 4 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 14 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 91.67% of the total value of the landings in 2016 provided by MS, and were as follows

- 7 fleet segments may not be in balance with their fishing opportunities;
- 7 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 19 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 9 fleet segments may be in balance with their fishing opportunities;
- 3 fleet segment with SAR: 4 SAR stock may not be in balance with their fishing opportunities.
- 3 fleet segment with SAR: 3 SAR stock may not be in balance with their fishing opportunities.
- 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 3 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

The number of fleet segments for which the ROI indicator is available for 2016 is 19 and the trends are calculated for all of them.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the ROI indicator values for the 19 Danish fleet segments indicate that:

- 5 fleet segments appear to be not in balance with their fishing opportunities;
- 12 fleet segments appear to be in balance with their fishing opportunities;
- 2 fleet segments appear not to be sufficiently profitable.

For 17 segment(s) an increasing trend is assessed for ROI while a decreasing trend is observed for 2 segment(s).

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 19 and trends are calculated for all 19 segments.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 19 Danish fleet segments indicate that:

- 5 fleet segments appear to be not in balance with their fishing opportunities;
- 14 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend was assessed for 16 segments, a decreasing trend for one segment and two segments showed no trend.

The Inactive Fleet Indicators

In 2016, 5 Danish fleet segments were considered inactive (VL0010, VL1012, VL1218, VL1824 and VL2440).

The total inactive vessels account for 23% of the number of Danish vessels, 2% of the total GTs and 6% of the total kW of the Danish fleet.

The Vessel Use Indicator

No data on VUR is available and VUR220 was used in such a context.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 17-08 notes that the VUR220 indicator values for the 19 Danish segments indicate that:

- 13 fleet segments appear to be not in balance with their fishing opportunities;
- 6 fleet segments appear to be in balance with their fishing opportunities.

For 17 segments no trend in the Vessel Use Indicator (VUR220) is observable, an increasing trend is observed for 1 segment and a decreasing one for another.

Quality of data

According to the AER 2018, no major data issues were identified.

3.6.6 Estonia (EST)

Area 27

Sustainable Harvest Indicator (SHI)

Landings in value and SHI indicator values were available for all the 5 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 1 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 4 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 71.60% of the total value of the landings in 2016 provided by MS, and were as follows

- 4 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 5 active fleet segments in 2016

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 5 fleet segments may be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 5 fleet segments in the Estonian fleet (some with very few vessels), and 4 segments remain after clustering.

The number of fleet segments for which the ROI indicator is available for 2016 is 4 and the trends are calculated for 3 of them.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the ROI indicator values for the Estonian fleet segments indicate that:

- 4 fleet segments appear to be in balance with their fishing opportunities;
- 0 fleet segments appear to be out of balance with their opportunities.

For 2 segments an increasing trend is assessed for ROI, a decreasing trend is observed for 1 segment while no trend could be calculated for 1 segment due to lack of historical data (this is due to the TM1218 segment being reclassified as a new segment).

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

Of the five active fleet segments in the Estonian fleet the number of fleet segments for which the CR/BER indicator is available is 4. Trends were calculated for three segments.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 17-08 notes that the CR/BER indicator values for the Estonian fleet segments indicate that all the 4 fleet segments appear to be in balance with their fishing opportunities.

One segment showed an increasing trend, one showed a decreasing tre3nd, one showed no trend and one trend was not calculated due to reclassification of the segment.

The Inactive Fleet Indicators

In 2016, 1 vessel length segment had inactive vessels (VL1218).

The total inactive Estonian vessels in the one remaining fleet segment account for less than 1% of the total number of vessels, 1% of the total GT and 1%of total kW.

The Vessel Use Indicator

More segments are assessed for VUR220 than VUR. The number of fleet segments for which the VUR220 is available is 4. Trends are assessed for 3 segments.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR220 values for the Estonian segments indicate that all 4 fleet segments appear to be out of balance with their fishing opportunities.

The trends in VUR220 show no trend for all three segments.

Data issues

Due to confidentiality issues, the data for the distant water fleet (DTS VL40XX) are not reported. There were only two owners operating with 5 vessels in this segment in 2016.

3.6.7 Finland (FIN)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 11 fleet segments active in 2016, landings in value have been provided aggregated in 5 fleet segments and SHI indicator values were available for 5.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 1 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 4 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 80.54% of the total value of the landings in 2016 provided by MS, and were as follows

- 4 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 5 active fleet segments for which aggregated landings data was available in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 5 fleet segments may be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016 there were 13 segments in the Finish fleet of which 10 were active and 3 inactive. After clustering, the *ROFTA* indicator was available for 5 segments, of which:

- 1 appeared to be in balance,
- 4 appear to be not in balance.

Trends were calculated for 5 segments, of which:

- 2 displayed an increasing trend,
- 3 displayed a declining trend.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

After clustering the *CR/BER* indicator was available for 5 segments, of which:

- 1 appears to be in balance,
- 4 appear to be not in balance.

Trends were calculated for 5 segments, of which:

- 1 displayed an increasing trend,
- 1 displayed a declining trend,
- 3 displayed no trend.

The Inactive Fleet Indicators

Three vessel length segments (all Area 27) had inactive vessels: VL0010, VL1012, VL1218. These represented 48.3% of the total number of vessels, 22.5% of the total GT and 40.6% of the total kW. The fleet segment with the highest level of inactivity was the VL0010 group with 45% of vessels inactive (16.3% GT, 31.4% kW).

The Vessel Use Indicator

After clustering the vessel utilisation indicator was available for 3 segments, of which:

- 2 appeared to be in balance with their fishing opportunities,
- 1 appear to be not in balance.

Trends were calculated for 3 segments, of which:

- 3 displayed an decreasing trend.

Quality of data

According to the AER 2018 Finland that the recording of in-active vessels below 12 m was changed in 2012 and again 2014-15. Therefore, there are changes in the time series. Over the last years Finland has also modified the assumptions used in the Perpetual Inventory Method (PIM) regarding service life of each asset, depreciation rates and share of each asset in total value as well as the price per capacity used. These updates have greatly affected depreciated replacement values and the depreciation reported for the time series, affecting also the net profits of the sector.

3.6.8 France (FRA)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 52 fleet segments active in 2016, landings in value have been provided aggregated in 51 fleet segments and SHI indicator values were available for 49.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 30 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 19 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 71.60% of the total value of the landings in 2016 provided by MS, and were as follows

- 12 fleet segments may not be in balance with their fishing opportunities;
- 7 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 51 active fleet segments for which aggregated data was available in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 34 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 6 SAR stock may not be in balance with their fishing opportunities.
- 1 fleet segment with SAR: 5 SAR stock may not be in balance with their fishing opportunities.
- 2 fleet segment with SAR: 3 SAR stock may not be in balance with their fishing opportunities.
- 5 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 8 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Area 37

Sustainable Harvest Indicator (SHI)

Out of 29 fleet segments active in 2016, landings in value have been provided aggregated in 26 fleet segments and SHI indicator values were available for 23.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 14 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 9 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 44.62% of the total value of the landings in 2016 provided by MS, and were as follows

- 7 fleet segments may not be in balance with their fishing opportunities;
- 2 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 26 active fleet segments for which aggregated landings data was available in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 26 fleet segments may be in balance with their fishing opportunities;

OFR

Sustainable Harvest Indicator (SHI)

Out of 16 fleet segments active in 2016, landings in value have been provided aggregated in 14 fleet segments and SHI indicator values were available for 6.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 1 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 5 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 97.89% of the total value of the landings in 2016 provided by MS, and were as follows

- 1 fleet segments may not be in balance with their fishing opportunities;
- 4 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 14 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 13 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2015 there were 213 segments in the French fleet of which 195 were active and 18 inactive. After clustering, the *ROFTA* indicator was available for 50 segments, of which:

- 41 appeared to be in balance with their fishing opportunities,

- 8 appear to be not in balance,
- 1 appeared to be not sufficiently profitable.

Trends were calculated for 45 segments, of which:

- 31 displayed an increasing trend,
- 14 displayed a declining trend.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

After clustering the *CR/BER* indicator was available for 50 segments, of which:

- 41 appeared to be in balance with their fishing opportunities,
- 9 appear to be not in balance.

Trends were calculated for 45 segments, of which:

- 17 displayed an increasing trend,
- 12 displayed a declining trend.

15 displayed *no trend.*

The Inactive Fleet Indicators

18 vessel length segments had inactive vessels:

- AREA27: VL0010, VL1012, VL1218, VL1824, --------, VL40XX,
- AREA37: VL0006, VL0612, VL1218, VL1824, VL2440, VL40XX,
- OFR: VL0010, VL1012, --------, VL1824.

These represented 17.2% of the total number of vessels, 3.8% of the total GT and 12.8% of the total kW. The fleet segments with the highest levels of inactivity were the OFR VL0010 group with 10.7% of vessels inactive (0.9% GT, 8.4% kW), and in Area 27 VL0010 group with 2.2% of vessels inactive (0.2% GT, 0.9% in kW). For Area 37 VL0612 was the group with the highest percentage of inactive vessels with 2% (0,2% GT, 0,9% in kW).

The Vessel Use Indicator

After clustering the vessel utilisation indicator was available for 57 segments, of which:

- 26 appeared to be in balance with their fishing opportunities,
- 37 appear to be not in balance*,* of which 31 are segments 0 – 12 m in length and 6 are segments above 12 metres LOA.

Trends were calculated for 57 segments, of which:

- 13 displayed an increasing trend,
- 10 displayed a declining trend,
- 34 displayed no trend*.*

Data issues

According to the AER 2018 France has some minor data issues relating to historical capacity data (pre-2012) and still a few data gaps regarding the Outermost Regions. Coverage of capacity data is low for less than 12m vessels in the Mediterranean. Investments are reported with a low response rate.

3.6.9 Germany (DEU)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 20 fleet segments active in 2016, landings in value have been provided aggregated in 14 fleet segments and SHI indicator values were available for 14.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 4 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 10 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 74.30% of the total value of the landings in 2016 provided by MS, and were as follows

- 10 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 14 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 6 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 4 SAR stock may not be in balance with their fishing opportunities.
- 5 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 2 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016, there are 25 fleet segments in the German fleet, with 20 active segments. After clustering these amount to 13 segments.

The number of fleet segments for which the *ROFTA* indicator is available for 2016 is 13 and the number of segments for which trends are calculated is 13.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the RoFTA indicator values for the 13 German fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 9 fleet segments appear to be in balance with their fishing opportunities;

For 11 segments an increasing trend is assessed for ROFTA while a decreasing trend is observed for 2 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 13.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 13 German fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;

- 9 fleet segments appear to be in balance with their fishing opportunities.

For 9 segments an increasing trend is assessed for CR/BER, for 1 segment a decreasing trend is observed while no trend is observed for 3 segments.

The Inactive Fleet Indicators

In 2016, 5 vessel length segments had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440*)*.

The total inactive German vessels account for 26% of the total number of vessels, 3% of the total GT and 7% of the total kW.

The fleet segment with the highest levels of inactivity is the VL0010 group at 24%, in number and 3% in kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 13.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 13 German fleet segments indicate that:

- 4 fleet segments (2 above 12 metres) appear to be not in balance with their fishing opportunities;
- 9 fleet segments (7 above 12 metres) appear to be in balance with their fishing opportunities.

For all 13 segments, no trend is assessed for Vessel Use Indicator.

Data Issues

According to the AER 2018, there is no major data quality issues. Vessels under 8 meters are sampled for effort data. The remaining variables (cost, employment, fuel consumption) are estimated based on results from an accountants' network and from surveys with questionnaires. Due to confidentiality issues, only capacity and weight of landings data are provided for the pelagic fleet.

3.6.10 Greece (GRC)

Area 37

Sustainable Harvest Indicator (SHI)

Out of 33 fleet segments active in 2016, landings in value have been provided aggregated in 14 fleet segments and SHI indicator values were available for 11.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 7 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 4 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 27.05% of the total value of the landings in 2016 provided by MS, and were as follows:

- 4 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 14 active fleet segments for which aggregated landings data were provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 14 fleet segments may be in balance with their fishing opportunities.

Economic and technical indicators

The AER 2018 reported that there are still substantial gaps in several years regarding economic data for Greece. Therefore, the indicator calculations are not presented here as they are seen as unreliable.

The Inactive Fleet Indicators

In 2016, 3 vessel length classes had inactive vessels (VL0006, VL0612, VL1218*)*. The total inactive Greek vessels accounted for 7.74% of the total number of vessels, 5.41% of the total GT and 7.86% of the total kW. The largest percentage of inactive vessels was in VL 0612 with 5% (3.6% of GT, 5.6% of kW).

Data Issues

Significant data issues were reported for Greece in the AER 2018. The National Programme has faced difficulties over the years, which have led to interrupted time-series.

3.6.11 Ireland (IRL)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 33 fleet segments active in 2016, landings in value have been provided aggregated in 33 fleet segments and SHI indicator values were available for 29.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 14 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 15 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 81.42% of the total value of the landings in 2016 provided by MS, and were as follows:

- 11 fleet segments may not be in balance with their fishing opportunities;
- 4 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 33 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 26 fleet segments may be in balance with their fishing opportunities.
- 1 fleet segment with SAR: 5 SAR stock may not be in balance with their fishing opportunities.
- 1 fleet segment with SAR: 4 SAR stock may not be in balance with their fishing opportunities.
- 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 4 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016, 32 fleet segments were active in the Irish fleet. As some of them were aggregated in providing economic data, a final number of 12 fleet segments can be considered for the analysis.

In 2016 the number of fleet segments for which the *ROFTA* indicator is available is 12 and the number of segments for which trends are calculated is 11.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the RoFTA indicator values for the Irish fleet segments indicate that:

- 6 fleet segments appear to be not in balance with their fishing opportunities,
- 6 fleet segments appear to be in balance with their fishing opportunities.

For 5 segments an increasing trend is assessed for *ROFTA* while a decreasing trend is observed for 6 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 12 and the number of segments for which trends are calculated is 11.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the CR/BER indicator values for the Irish fleet segments indicate that:

- 6 fleet segments appear to be not in balance with their fishing opportunities,
- 6 fleet segments appear to be in balance with their fishing opportunities.

For 7 segments an increasing trend is assessed for *CR/BER* while a decreasing trend is observed for 3 segments. For one segment there is no trend.

The Inactive Fleet Indicators

In 2016, 5 vessel length classes had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440).

The total inactive Irish vessels account for 29.6% of the total number of vessels, 19.5% of GT and 6.43% of the total kW.

The length classes with the highest number of inactive vessels are the *VL0010* group at 25% of the total number of vessels, 16.5% of total GT and 0.71% of the total kW, and the *VL1012* group at 3.6% of the total number of vessels, 1% of GT and 3 % of the total kW.

A decreasing trend is registered in the levels of inactivity for all vessel length classes in terms of both number of vessels and total kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 19.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the VUR indicator values for the Irish segments indicate that:

- 12 fleet segments appear to be not in balance with their fishing opportunities,
- 7 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is assessed for Vessel Use Indicator while a decreasing trend is observed for 4 segments. For 11 fleet segment no trend was observed.

Data issues

Values and figures differ from previous reports as more survey returns changed the total national estimates. The survey target rates, however, differ between fleet segments. There are still data issues for the vessels below 10 m as many of the vessels are not obliged to deliver certain data.

3.6.12 Italy (ITA)

Area 37

Sustainable Harvest Indicator (SHI)

Out of 31 fleet segments active in 2016, landings in value have been provided aggregated in 22 fleet segments and SHI indicator values were available for 21.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 3 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 18 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 61.23% of the total value of the landings in 2016 provided by MS, and were as follows:

- 17 fleet segments may not be in balance with their fishing opportunities;
- 1 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 22 active fleet segments in 2016. According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 22 fleet segments may be in balance with their fishing opportunities;

OFR

Sustainable Harvest Indicator (SHI)

Out of 2 fleet segments active in 2016, landings in value have been provided aggregated in 2 fleet segments and SHI indicator values were available for 0 segments.

Stocks at Risk Indicator (SAR)

No SAR indicator was available for the 2 active fleet segments in 2016.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 34 fleet segments in the Italian fleet. After clustering these amount to 23 segments.

The number of fleet segments for which the ROFTA indicator is available for 2016 is 23 and the number of segments for which trends are calculated is 21.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the RoFTA indicator values for the 23 Italian fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities,
- 18 fleet segments appear to be in balance with their fishing opportunities,

- 1 fleet segment appears to have insufficient profitability.

For 14 segments an increasing trend is assessed for ROFTA while a decreasing trend is observed for 7 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 23.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 23 Italian fleet segments indicate that:

- 5 fleet segments appear to be not in balance with their fishing opportunities,
- 18 fleet segments appear to be in balance with their fishing opportunities.

For 10 segments an increasing trend is assessed for CR/BER while a decreasing trend is observed for 6 segments. 5 segments report no trend and 2 make no report.

The Inactive Fleet Indicators

In 2017, 5 vessel length segments had inactive vessels (VL0006, VL0612, VL1218, VL1824, VL2440).

The total inactive Italian vessels account for 8.7% of the total number of vessels, 4.3% of the total GT and 5.5% of the total kW.

The fleet segments with the highest levels of inactivity are the VL0612 group at 4.76% and the VL0006 group at 2.7%.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 22.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 23 Italian segments indicate that:

- 17 fleet segments appear to be not in balance with their fishing opportunities,
- 5 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is assessed for the Vessel Use Indicator while a decreasing trend is also observed for 2 segment(s). 16 segments report no trend.

Data Issues

In the Annual Economic Report 2017 the following data issues were reported:

> *No major data transmission issues to report. Due to confidentiality reasons, Italy only provides partial data on its distant water pelagic trawler fleet. This impacts on the AER as only incomplete coverage of the EU fleet is possible*.

3.6.13 Latvia (LVA)

<u>Area 27</u>

<u>Sustainable Harvest Indicator (SHI)</u>

Landings in value and SHI indicator values were available for all the 3 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 0 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 3 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 100.00% of the total value of the landings in 2016 provided by MS, and were as follows:

- 3 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

<u>Stocks at Risk Indicator (SAR)</u>

SAR indicator was available for all the 3 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 3 fleet segments may be in balance with their fishing opportunities.

<u>Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)</u>

The *ROFTA* indicator for 2016 is available for all 3 active fleet segments.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 RoFTA indicator values for the 3 Latvian fleet segments indicate that:

- All 3 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is assessed for ROFTA, while a decreasing trend is observed for 1 segment.

<u>Ratio between Current Revenue and Break-Even Revenue (CR/BER)</u>

The number of fleet segments for which the CR/BER indicator is available is 3.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the CR/BER indicator values for the 3 Latvian fleet segments indicate that:

- All 3 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend is observed for 2 fleet segments.

The Inactive Fleet Indicators

In 2016, inactive vessels were registered only for the vessel length class lower than 10m (VL0010).

The total inactive Latvian vessels account for 20.0% of the total number of vessels, 1.6% of the total GT and 3.6% of the total kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 3.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the VUR indicator values for the 3 Latvian fleet segments indicate that:

- 2 fleet segments appear to be not in balance with their fishing opportunities;
- 1 fleet segment appears to be in balance with its fishing opportunities.

No trend is observed for the 3 fleet segments.

3.6.14 Lithuania (LTU)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 8 fleet segments active in 2016, landings in value have been provided aggregated in 8 fleet segments and SHI indicator values were available for 7.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 3 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 4 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 64.81% of the total value of the landings in 2016 provided by MS, and were as follows:

- 4 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 8 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 8 fleet segments may be in balance with their fishing opportunities.

OFR

Sustainable Harvest Indicator (SHI)

Out of 4 fleet segments active in 2016, landings in value have been provided aggregated in 4 fleet segments and SHI indicator values were available for 3.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 1 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 2 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 27.27% of the total value of the landings in 2016 provided by MS, and were as follows:

- 0 fleet segments may not be in balance with their fishing opportunities;
- 2 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 4 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 3 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 12 fleet segments in the Lithuanian fleet. After clustering, these amount to 5 segments.

The number of fleet segments for which the RoFTA indicator is available and trends are calculated for 2016 is 5.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the RoFTA indicator values for the Lithuanian fleet segments indicate that:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 2 fleet segments appear to be in balance with their fishing opportunities.

For 1 segment an increasing trend is assessed for RoFTA, while a decreasing trend is observed for 4 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)
The number of fleet segments for which the CR/BER indicator is available is 5.
According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the Lithuanian fleet segments indicate that:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 2 fleet segments appear to be in balance with their fishing opportunities.

A decreasing trend is observed for all fleet segments.

The Inactive Fleet Indicators
In 2016, all vessel length classes had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440, VL40XX).
The length classes with the highest levels of inactivity are the VL0010 group at 27.3% of the total number of vessels and 1.7% of total kW, and the VL2440 group at 3.3% of total number of vessels and 1.9% of total kW.

The Vessel Use Indicator
The number of fleet segments for which the Vessel Use Indicator is available is 5.
According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the Lithuanian segments indicate that:

- 1 fleet segment appears to be not in balance with its fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend is assessed for 1 segment and a decreasing trend for another segment. Trends for the other 3 fleet segments were not calculated for the lack of the indicator in 2015.

3.6.15 Malta (MLT)

Area 37

Sustainable Harvest Indicator (SHI)

Out of 21 fleet segments active in 2016, landings in value have been provided aggregated in 21 fleet segments and SHI indicator values were available for 18.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 14 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 4 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 42.79% of the total value of the landings in 2016 provided by MS, and were as follows:

- 4 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 21 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 21 fleet segments may be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

The number of fleet segments for which the *ROFTA* indicator is available for 2016 is 20 on a total of 21 fleet segments. No cluster is reported.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the RoFTA indicator values for the 20 Maltese fleet segments indicate that:

- 14 fleet segments appear to be not in balance with their fishing opportunities;
- 6 fleet segments appear to be in balance with their fishing opportunities.

For 10 segments an increasing trend is assessed for *ROFTA*, while a decreasing trend is observed for 8 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 20.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the CR/BER indicator values for the 20 Maltese fleet segments indicate that:

- 14 fleet segments appear to be not in balance with their fishing opportunities;
- 6 fleet segments appear to be in balance with their fishing opportunities.

For 10 segments an increasing trend is assessed for *CR/BER*, while a decreasing trend is observed for 4 segments.

The Inactive Fleet Indicators

In 2016, 5 vessel length classes had inactive vessels (*VL0006, VL0612, VL1218, VL1824, VL2440)*.

The total inactive Maltese vessels account for 27.9% of the total number of vessels, 27.3% of the total GT and 25.0% of the total kW.

The length classes with the highest levels of inactivity are the *VL0006* group at 15.0% in vessel numbers (5.0% in kW), and the *VL0612* group at 11.5% in vessel numbers (13.2% in kW).

The Vessel Use Indicator

The Vessel Use Indicator is available for all the 21 fleet segments.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that:

- 2 fleet segments appear to be not in balance with their fishing opportunities;
- 19 fleet segments appear to be in balance with their fishing opportunities.

For 5 segments a decreasing trend is assessed for Vessel Use Indicator, while an increasing trend is observed for 2 segments.

3.6.16 Netherlands (NLD)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 27 fleet segments active in 2016, landings in value have been provided aggregated in 14 fleet segments and SHI indicator values were available for 14.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 7 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 7 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 69.98% of the total value of the landings in 2016 provided by MS, and were as follows:

- 6 fleet segments may not be in balance with their fishing opportunities;
- 1 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 14 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 12 fleet segments may be in balance with their fishing opportunities;
- 2 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016, there are 27 active fleet segments in the Dutch fleet. After clustering, these amount to 14 segments.

Both ROI and RoFTA could be calculated for the Dutch fleet, therefore the ROI indicator is analysed. The number of fleet segments for which the *ROI* indicator is available in 2016 is 14 and the number of segments for which trends are calculated is 13.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the ROI indicator values for the 14 Dutch fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 10 fleet segments appear to be in balance with their fishing opportunities.

For 10 segments an increasing trend is assessed for *ROI*, while a decreasing trend is observed for 3 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

In 2016, the number of fleet segments for which the *CR/BER* indicator is available is 14.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 14 Dutch fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 10 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend is assessed for *CR/BER* for 13 segments, while a decreasing trend is assessed for the remaining fleet segment.

<u>The Inactive Fleet Indicators</u>

In 2016, 6 vessel length classes had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440, VL40XX).

The total inactive Dutch vessels account for 28.1% of the total number of vessels, 7.2% of the total GT and 10.4% of the total kW.

The length class with the highest number of inactive vessels is the VL0010 group at 19.0% in number and 2.4% in kW.

<u>The Vessel Use Indicator</u>

The number of fleet segments for which the Vessel Use Indicator is available is 14.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 14 Dutch segments indicate that:

- 5 fleet segments appear to be not in balance with their fishing opportunities;
- 9 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is assessed for Vessel Use Indicator, while no trend is observed for 12 segments.

3.6.17 Poland (POL)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 15 fleet segments active in 2016, landings in value have been provided aggregated in 7 fleet segments and SHI indicator values were available for 7.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 5 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 2 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 50.67% of the total value of the landings in 2016 provided by MS, and were as follows:

- 2 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 8 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 7 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 16 fleet segments in the Polish fleet. After clustering, these amount to 9 segments.

The number of fleet segments for which the RoFTA indicator is available for 2016 is 7 and the number of segments for which trends are calculated is 5.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the *RoFTA* indicator values for the 7 Polish fleet segments indicate that:

- 2 fleet segments appear to be not in balance with their fishing opportunities and a fleet segment is not sufficiently profitable;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For the 5 segments with sufficient data for trend, 2 show a decreasing and 2 an increasing trend for ROFTA, while no trend was obtained for the remaining fleet segment.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 7.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the *CR/BER* indicator values for the 7 Polish fleet segments indicate that:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For 2 fleet segments a decreasing trend is shown, for other two an increasing trend and one segment show no trend.

The Inactive Fleet Indicators

In 2016, 5 vessel length classes had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440).

The total inactive Polish vessels account for 7.2% of the total number of vessels, 2.7% of the total GT and 4.4% of the total kW.

The fleet segments with the highest levels of inactivity are the VL0010 group at 3.4% and the VL1012 group at 2.6%.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 7.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 7 Polish segments indicate that:

- 7 fleet segments appear to be not in balance with their fishing opportunities.

For the 7 segments for which data is available no trend is observed in the Vessel Use Indicator.

3.6.18 Portugal (PRT)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 49 fleet segments active in 2016, landings in value have been provided aggregated in 44 fleet segments and SHI indicator values were available for 40.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 31 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 9 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 33.49% of the total value of the landings in 2016 provided by MS, and were as follows

- 6 fleet segments may not be in balance with their fishing opportunities;
- 3 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 44 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 32 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 3 SAR stock may not be in balance with their fishing opportunities.
- 2 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 9 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

OFR

Sustainable Harvest Indicator (SHI)

Out of 10 fleet segments active in 2016, landings in value have been provided aggregated in 8 fleet segments and SHI indicator values were available for 7.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 5 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 2 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 8.60% of the total value of the landings in 2016 provided by MS, and were as follows

• 2 fleet segments may not be in balance with their fishing opportunities;

• 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 8 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

• 6 fleet segments may be in balance with their fishing opportunities;

• 2 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There were 60 active fleet segments in the Portuguese fleet in 2016. After clustering, these amount to 53 segments.

The number of fleet segments for which the *ROFTA* indicator is available for 2016 is 52.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the *RoFTA* indicator values for the Portuguese fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 48 fleet segments appear to be in balance with their fishing opportunities.

A total of 37 fleet segments showed an increasing trend for *ROFTA*, while a decreasing trend is observed for 9 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 52.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the *CR/BER* indicator values for the Portuguese fleet segments indicate that:

- 4 fleet segments appear to be not in balance with their fishing opportunities;
- 48 fleet segments appear to be in balance with their fishing opportunities.

An increasing trend is assessed for *CR/BER* for 42 segments on a total of 47 for which trends are available. Only 3 fleet segments show a decreasing trend.

The Inactive Fleet Indicators

Portugal did not properly allocate the number of inactive vessels in 2016. A differentiation is provided in the fleet segments names, which produced a duplication of vessel length classes for the supra region AREA27. Considering all supra regions, a total of 6 vessel length classes had inactive vessels in 2016 (VL0010, VL1012, VL1218, VL1824, VL2440, VL40XX).

The total inactive Portuguese vessels accounted for 52.9% of the total number of vessels, 23.8% of the total GT and 23.9% of the total kW.

The length class with the highest number of inactive vessels is the VL0010 group, which represents almost an half of the fleet (49.7%) in number, 3.9% in GT and 10.0% in kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator calculated by using the max days at sea (DAS) provided by the MS is available is 52.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the VUR indicator values for the 52 Portuguese segments indicate that:

- 24 fleet segments appear to be not in balance with their fishing opportunities;
- 28 fleet segments appear to be in balance with their fishing opportunities.

For 6 segments an increasing trend is assessed for Vessel Use Indicator, while a decreasing trend is observed for 2 fleet segments. Trend is not available for the other fleet segments.

3.6.19 Romania (ROU)

Area 37

Sustainable Harvest Indicator (SHI)

Landings in value and SHI indicator values were available for all the 6 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for all 6 fleet segments can be used to assess the balance or imbalance because in all 6 segments the indicator values are based on stocks that comprise more than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 6 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 100.00% of the total value of the landings in 2016 provided by MS, and were as follows:

- 6 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 6 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 4 fleet segments may be in balance with their fishing opportunities;
- 2 fleet segments with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 6 active fleet segments in the Romanian fleet in 2016. After clustering these amount to 4 clustered segments.

The number of fleet segments for which the ROI indicator is available for 2016 is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 ROI indicator values for the Romanian fleet segments indicate that:

- 0 fleet segment appears to be not in balance with their fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For 4 segments an increasing trend is assessed for ROI while a decreasing trend is observed for 0 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 CR/BER indicator values for the Romanian fleet segments, indicate that:

- 0 fleet segment appears to be not in balance with their fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For 4 segments an increasing trend is assessed for CR/BER while a decreasing trend is observed for 0 segments.

<u>The Inactive Fleet Indicators</u>

In 2016, 3 vessel length segments had inactive vessels (VL0006, VL0612, VL1218). The total inactive Romanian vessels account for 17.7% of the total number of vessels, 9% of total GT and for 8.2% of total kW.

The fleet segments with the highest levels of inactivity are the VL0612 group at 14.3% of the total number of vessels and 5% of the total kW, and the VL0006 group at 2.7% of the total number of vessels and 0.08% of the total kW.

<u>The Vessel Use Indicator</u>

The number of fleet segments for which the Vessel Use Indicator is available is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 VUR indicator values for the Romanian segments indicate that:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 1 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is assessed for Vessel Use Indicator while, a decreasing trend is observed for 1 segment and no trend is observed for 1 segment.

<u>Data Issues</u>

No major issues were reported.

3.6.20 Slovenia (SVN)

Area 37

Sustainable Harvest Indicator (SHI)

Out of 14 fleet segments active in 2016, landings in value have been provided aggregated in 4 fleet segments and SHI indicator values were available for 4.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 2 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 2 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 45.47% of the total value of the landings in 2016 provided by MS, and were as follows

- 2 fleet segments may not be in balance with their fishing opportunities;
- 0 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 4 active fleet segments for which aggregated landings data was provided in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 4 fleet segments may be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016, there are 14 active fleet segments in the Slovenian fleet (some with very few vessels), and after clustering 4 clustered segments remain.

The number of fleet segments for which the ROFTA indicator is available for 2016 is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 RoFTA indicator values for the Slovenian fleet segments indicate that:

- 0 fleet segment appear to be not in balance with their fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For 3 segments, a decreasing trend is observed for RoFTA, while for 1 segment an increasing trend is observed.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available for 2016 is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 17-08 notes that the 2016 CR/BER indicator values for the Slovenian fleet segments indicate that:

- 0 fleet segment appear to be not in balance with their fishing opportunities;
- 4 fleet segments appear to be in balance with their fishing opportunities.

For 2 segments an increasing trend is observed for ROFTA, while a decreasing trend is observed for 1 segment and no trend is observed for 1 segment.

The Inactive Fleet Indicators

In 2016, 4 vessel length segments had inactive vessels (VL0006, VL0612, VL1218, VL1824). The total inactive Slovenian vessels account for 51.4% of the total number of vessels and for 46.5% of total kW. The fleet segments with the highest levels of inactivity are the VL0006 group at 29.8% of the total number of vessels and 6.3% of the total kW, and the VL0612 group at 19.3% of the total number of vessels and 28.1% of the total kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 4 and the number of segments for which trends are calculated is 4.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 VUR indicator values for the Slovenian segments indicate that:

- 3 fleet segments appear to be not in balance with their fishing opportunities;
- 1 fleet segment appears to be in balance with their fishing opportunities.

For 1 segment an increasing trend is assessed for Vessel Use Indicator while no trend is observed for 3 segments.

Data Issues

No major data issues in data transmission and data quality reported by AER2018 for Slovenia.

3.6.21 Spain (ESP)

Area 27

Sustainable Harvest Indicator (SHI)

Out of 37 fleet segments active in 2016, landings in value have been provided aggregated in 36 fleet segments and SHI indicator values were available for 34.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 18 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 16 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 65.12% of the total value of the landings in 2016 provided by MS, and were as follows

- 11 fleet segments may not be in balance with their fishing opportunities;
- 5 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 36 active fleet segments for which aggregated landings data was available in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 20 fleet segments may be in balance with their fishing opportunities;
- 2 fleet segment with SAR: 6 SAR stock may not be in balance with their fishing opportunities.
- 2 fleet segment with SAR: 3 SAR stock may not be in balance with their fishing opportunities.
- 6 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 6 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Area 37

Sustainable Harvest Indicator (SHI)

Out of 29 fleet segments active in 2016, landings in value have been provided aggregated in 29 fleet segments and SHI indicator values were available for 27.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 15 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 12 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 75.99% of the total value of the landings in 2016 provided by MS, and were as follows

- 10 fleet segments may not be in balance with their fishing opportunities;
- 2 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 29 active fleet segments in 2016

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 28 fleet segments may be in balance with their fishing opportunities;

• 1 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

OFR

Sustainable Harvest Indicator (SHI)

Out of 19 fleet segments active in 2016, landings in value have been provided aggregated in 19 fleet segments and SHI indicator values were available for 16.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 8 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 8 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 70.21% of the total value of the landings in 2016 provided by MS, and were as follows

- 0 fleet segments may not be in balance with their fishing opportunities;
- 8 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 19 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 14 fleet segments may be in balance with their fishing opportunities;
- 5 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There are 84 active fleet segments in the Spanish fleet. After clustering these amount to 57 segments.

The number of fleet segments for which the ROFTA indicator is available for 2016 is 49 (only 15 segments for which ROI is available) and the number of segments for which trends of RoFTA are calculated is 40.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 RoFTA indicator values for the 49 Spanish fleet segments indicate that:

- 2 fleet segments appear to be not in balance with their fishing opportunities;
- 47 fleet segments appear to be in balance with their fishing opportunities;

For 34 segments an increasing trend is assessed for ROFTA while a decreasing trend is observed for 6 segments.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the CR/BER indicator is available is 49 and the number of segments for which trends of CR/BER are calculated is 40.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the CR/BER indicator values for the 49 Spanish fleet segments indicate that:

- 2 fleet segments appear to be not in balance with their fishing opportunities;

- 49 fleet segments appear to be in balance with their fishing opportunities.

For 33 segments an increasing trend is assessed for ROFTA, while a decreasing trend is observed for 4 segments and no trend is observed for 3 segments.

The Inactive Fleet Indicators

In 2016, 6 vessel length segments had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440 and VL40XX)

The total inactive Spanish vessels account for 11.68% of the total number of vessels, 5.34% of the total GT and 6.12% of the total kW.

The fleet segments with the highest levels of inactivity are the VL0010 group at 9.83% in number and 1.71% in kW, and the VL2440 group at 0.42% in number and 2.16% in kW.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 59.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the 2016 VUR indicator values for the 59 Spanish segments indicate that:

- 10 fleet segments appear to be not in balance with their fishing opportunities;
- 49 fleet segments appear to be in balance with their fishing opportunities.

For 3 segments an increasing trend is assessed for Vessel Use Indicator while a decreasing trend is observed for 3 segments and no trend for 47 segments.

Data Issues

AER 2018 pointed out that there are some issues with raising the data due to the sampling plan. Spanish authorities are designing a new more realistic sampling design.

3.6.22 *Sweden (SWE)*

Area 27

Sustainable Harvest Indicator (SHI)

Out of 25 fleet segments active in 2016, landings in value have been provided aggregated in 24 fleet segments and SHI indicator values were available for 22.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 5 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 17 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 92.95% of the total value of the landings in 2016 provided by MS, and were as follows

- 10 fleet segments may not be in balance with their fishing opportunities;
- 7 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 24 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 18 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.
- 5 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

In 2016 there were 36 active segments in the Swedish fleet. After clustering, the *ROFTA* indicator was available for 7 segments, of which:

- 5 appeared to be *in balance* with their fishing opportunities,
- 2 appear to be not in balance.

Trends were calculated for 7 segments, of which:

- 5 displayed an *increasing trend*,
- 2 displayed a *decreasing trend*.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The *CR/BER* indicator was available for 7 segments, of which:

- 5 appeared to be *in balance* with their fishing opportunities;
- 2 appear to be not in balance;

Trends were calculated for 7 segments, of which:

- 4 displayed an *increasing trend*,
- 3 displayed *no trend.*

The Inactive Fleet Indicators

In 2016, five vessel length segments had inactive vessels: VL0010, VL1012, VL1218, VL2440, VL40XX. These represented 22.3% of the total number of vessels, 15.2% of the total GT and 15.6% of the total kW. The fleet segment with the highest level of inactivity was the VL0010 group with 18.8% of vessels inactive (1.6% GT, 6.0%kW).

The Vessel Use Indicator

The vessel utilization indicator was available for 7 segments, of which:

- 2 appeared to be *in balance* with their fishing opportunities;
- 5 appear to be not in balance;

Trends were calculated for 7 segments all of which displayed no trend.

Data Issues

There were no major issues reported in the AER 2018 for Sweden.

3.6.23 *United Kingdom (GBR)*

Area 27

Sustainable Harvest Indicator (SHI)

Out of 41 fleet segments active in 2016, landings in value have been provided aggregated in 41 fleet segments and SHI indicator values were available for 38.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 19 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 19 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 76.03% of the total value of the landings in 2016 provided by MS, and were as follows

- 11 fleet segments may not be in balance with their fishing opportunities;
- 8 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 41 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 34 fleet segments may be in balance with their fishing opportunities;
- 1 fleet segment with SAR: 7 SAR stock may not be in balance with their fishing opportunities.

• 2 fleet segment with SAR: 3 SAR stock may not be in balance with their fishing opportunities.

• 1 fleet segment with SAR: 2 SAR stock may not be in balance with their fishing opportunities.

• 3 fleet segment with SAR: 1 SAR stock may not be in balance with their fishing opportunities.

OFR

Sustainable Harvest Indicator (SHI)

Out of 2 fleet segments active in 2016, landings in value have been provided aggregated in 2 fleet segments and SHI indicator values were available for 1.

According to the criteria in the 2014 Balance Indicator Guidelines, the SHI indicator values for 0 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments.

The EWG notes that for the 1 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for 6.70% of the total value of the landings in 2016 provided by MS, and were as follows:

- 0 fleet segments may not be in balance with their fishing opportunities;
- 1 fleet segments may be in balance with their fishing opportunities.

Stocks at Risk Indicator (SAR)

SAR indicator was available for all the 2 active fleet segments in 2016.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 SAR indicator values indicate:

- 2 fleet segments may be in balance with their fishing opportunities.

Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)

There were 43 fleet segments in the UK fleet in 2016. After clustering these amount to 29 segments.

The number of fleet segments for which the *ROI* indicator is available for 2016 is 29.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 ROI indicator values for the UK fleet segments indicate that:

- 28 fleet segments appear to be in balance with their fishing opportunities;
- 1 fleet segment appears not to be sufficiently profitable.

23 fleet segments showed an increasing trend for ROI while a decreasing trend is observed for 5 segments and no trend is observed for 1 segment.

Ratio between Current Revenue and Break-Even Revenue (CR/BER)

The number of fleet segments for which the *CR/BER* indicator is available is 29.

According to the criteria in the 2014 Balance Indicator Guidelines, EWG 18-14 notes that the 2016 CR/BER indicator values for the UK fleet segments indicate that:

- 29 fleet segments appear to be in balance with their fishing opportunities.

18 fleet segments showed an increasing trend for the CR/BER indicator while a decreasing trend is observed for 5 segments and no trend is observed for 6 segments.

The Inactive Fleet Indicators

In 2016, 6 vessel length segments had inactive vessels (VL0010, VL1012, VL1218, VL1824, VL2440, VL40+). The total inactive UK vessels account for 26.5% of the total number of vessels, 6.2% of the total GT and 12.6% of the total kW.

The fleet segments with the highest levels of inactivity are the *VL0010* group at 24.4% in terms of number of vessels and 8.4% inactivity in terms of kW.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 18-14 notes that the Inactive Fleet Indicators values for the UK fleet segments indicate that:

- 1 fleet segment appear to be not in balance with their fishing opportunities;
- 5 fleet segments appear to be in balance with their fishing opportunities.

The Vessel Use Indicator

The number of fleet segments for which the Vessel Use Indicator is available is 29.

According to the criteria in the 2014 Balance Indicator Guidelines EWG 17-08 notes that the VUR indicator values for the UK segments indicate that:

- 18 fleet segments appear to be not in balance with their fishing opportunities;
- 11 fleet segments appear to be in balance with their fishing opportunities.

For 1 segment an increasing trend is assessed for Vessel Use Indicator, while a decreasing trend is observed for 1 segment and no trend is observed for 27 segments.

Data Issues

No major issues were detected for the UK in the AER 2018.

3.7 Overview of Balance Indicator Trends

There were no clear signals overall in indicator trends in 2010-2016 for Areas 27 and 37. Improving trends in indicator values were found for the majority of fleet segments for which the economic indicators could be calculated. Analyses of technical indicators showed that indicator trends were improving for the inactive vessel indicator, but no clear trend was apparent for the VUR indicator. Improving trends in indicator values were found for the majority of fleet segments for which the SHI could be calculated. EWG 18-14 considered a trend analysis based on SAR indicator values to be too unreliable (Tables 4.7.1-2).

Table 4.7.1 Out of balance trend summary table at supra-region level. The number of fleet segments with improved, worsened and no trends in Area 27 (Northeast Atlantic), Area 37 (Mediterranean and Black Sea), OFR (Other Fishing Regions) over the period 2010-2016 are shown. For biological and technical indicators decreasing trends indicate improvement; for economic indicators increasing trends indicate improvement.

	Trend	SHI >40%	out of balance	VUR	out of balance	VUR 220	out of balance	Inactive vessels	out of balance	CR/BER	out of balance	RoFTA	out of balance	ROI	out of balance
Area 27	decreasing	117	30	12	5	6	3	20	3	28	12	54	17	11	3
	increasing	36	21	14	2			12	3	148	10	157	25	62	5
	no trend	117	46	168	82	213	129			36	10				0
Area 27 total		**270**	**97**	**194**	**89**	**219**	**132**	**32**	**6**	**212**	**32**	**211**	**31**	**73**	**8**
Area 37	decreasing	66	31	17	8	4	4	18	2	28	14	45	32	1	1
	increasing	44	29	14	1	4	3			79	24	83	24	8	2
	no trend	32	13	85	45	117	95			21	11		0		0
Area 37 total		**142**	**73**	**116**	**54**	**125**	**102**	**18**	**2**	**128**	**49**	**128**	**42**	**9**	**3**
OFR	decreasing	6	1	2	1					5	3	7	2		
	increasing	2	1	7	4	6	2			7	1	9	5		
	no trend	18	1	22	12	24	14			4	1		0		
OFR total		**26**	**3**	**31**	**17**	**30**	**16**	**0**	**0**	**16**	**5**	**16**	**5**		

When only considering the trends for Member State fleet segments assessed as being out of balance in 2016 according to the criteria of the 2014 Balance Indicator Guidelines (see Table 4.7.2 for assessments of trends in individual countries), the majority of fleet segments which were out of balance according to the biological indicator (SHI) either showed no trends or improving trends. There were no clear trends for the technical and economic indicators.

Table 4.7.2 Out of balance trend summary table at Member State level. The number of fleet segments with improved, worsened and no trends in Area 27 (Northeast Atlantic), Area 37 (Mediterranean and Black Sea), OFR (Other Fishing Regions) over the period 2010-2016 are shown. For biological and technical indicators decreasing trends indicate improvement; for economic indicators increasing trends indicate improvement.

Member State	No. Fleet Segments*	Trend	SHI >40%	out of balance	VUR	out of balance	VUR 220	out of balance	Inactive vessels	out of balance	CR/BER	out of balance	RoFTA	out of balance	ROI	out of balance
BEL	4	decreasing	3	1					1							
		increasing							2		3		4			
		no trend	1	1	4		4	1			1					
BGR	25	decreasing	8	8	3	1			4	1	5	2	5	1		
		increasing	13	13	2						11	7	11	3		
		no trend	2	2	11	7	16	16								
CYP	6	decreasing	3						2				1	1		
		increasing									3	3	5	4		
		no trend	3				6	5	1		3	3				
DEU	14	decreasing	11	6					2		1		2	1		
		increasing					1		1	1	9	2	11	3		
		no trend	3	3	13	4	12	7	2		3	2				
DNK	19	decreasing	10	5					3	1	1	1	2	1	2	1
		increasing	1								16	3	17	4	17	4
		no trend	7	2			19	13	1		2	1				
ESP	84	decreasing	31	8	3	1	2		1		4	1	6		1	
		increasing	5	2	3		2	1			33		34	1	12	
		no trend	22	7	47	9	49	18	5		3					
EST	5	decreasing							1		1		1		1	
		increasing	2	1							1		2		2	
		no trend	2	2	1		3	3			1					
FIN	5	decreasing							3	1			3	3		
		increasing	5	4	1						1	1	2	2		
		no trend			4	3	5	4			4	4				

Member State	No. Fleet Segments*	Trend	SHI >40%	out of balance	VUR	out of balance	VUR 220	out of balance	Inactive vessels	out of balance	CR/BER	out of balance	RoFTA	out of balance	ROI	out of balance
FRA	91	decreasing	12	3	8	2					11	3	20	5		
		increasing	15	9	9	4	4	2	2		20	1	27	1		
		no trend	43	8	42	29	55	34	11		16	2				
GBR	43	decreasing	16	3	1				1		5		11		5	
		increasing	1	1	1				1	1	18		18		23	
		no trend	22	7	27	18	29	17	4		6				1	
GRC	14	decreasing	4	2					1							
		increasing	2						2		10	2	10	2		
		no trend	2													
HRV	31	decreasing	14	4	3	2	1	1	3		5	5	9	9		
		increasing	7	3					2		8	6	9	5		
		no trend	3	1	16	8	18	15			5	4				
IRL	38	decreasing	7	1	3	2			5	1	9	4	10	3		
		increasing	6	1	3	1					8		7	1		
		no trend	12	6	13	7	19	14								
ITA	24	decreasing	7	6	1	1	1	1	1		3	1	6	1		
		increasing	7	7	2		2		1		14		16	1		
		no trend	7	4	19	14	20	16	5		5	1				
LTU	12	decreasing	3	1	1		2	1	3	1	5	3	4	3		
		increasing	2		1				2				1			
		no trend	3	2			3	3	1							
LVA	3	decreasing											1			
		increasing	2	1					1	1	2		2			
		no trend	1	1	3	2	3	3			1					
MLT	21	decreasing	5		5	2	2	2	3		4	4	8	7	1	1
		increasing	3		2				1		10	5	10	5	4	2
		no trend	6	3	9		17	17	1		4	3				
NLD	14	decreasing	11	3					2		1	1	1	1	3	2

Member State	No. Fleet Segments*	Trend	SHI >40%	out of balance	VUR	out of balance	VUR 220	out of balance	Inactive vessels	out of balance	CR/BER	out of balance	RoFTA	out of balance	ROI	out of balance
		increasing			2				2		13	3	13	3	10	1
		no trend	3	3	12	5	14	9	2							
POL	9	decreasing	3	1					3		2	2	2	1		
		increasing							1		2		3			
		no trend	2	1	5	5	7	5	1		1					
PRT	53	decreasing	27	6	2	2	5	2			3	2	9	2		
		increasing	2		6	1	1		1	1	42	2	37	2		
		no trend	14	2	38	19	42	27	15		2		1			
ROU	6	decreasing	2	2	1	1			2							
		increasing	3	3	2	1	2	2			4		4		4	
		no trend	1	1	1	1	2	2								
SVN	4	decreasing	2	1					2	1	1		3			
		increasing	1	1	1				1		2		1			
		no trend	1		3	3	4	4	1		1					
SWE	24	decreasing	10	1					1				2	1		
		increasing	5	5					2		4		5	1		
		no trend	7	4	7	5	7	5			3	2				

* No FS refers to the number of fleet segments or aggregated fleet segments for which a valid assessment of 'balance' for the reference year and trend analysis were available. This figure will not correspond to the total number of fleet segments (or aggregated fleet segments) for a MS if an assessment was not available for one or more fleet segments for the reference year and if the trend analysis was not possible, i.e. if one of the two most recent years of data are missing.

4 TOR 2 – Assessment of Member State Action Plans

4.1 Introductory Remarks for TOR 2

Article 22 of Regulation 1380/2013 (on the Common Fisheries Policy) states that where fleet segment assessments clearly demonstrate that fishing capacity is not effectively balanced with fishing opportunities, a Member State should prepare and include in its report an action plan for the fleet segment(s) identified as having structural overcapacity. According to Article 22 of Regulation 1380/2013, action plans should set out the adjustment targets and tools to achieve a balance, and a clear timeframe for its implementation. This Regulation is further supported by COM (2014) 545 Final, which states that action plans should also specify the causes of imbalance and in particular if it has a biological, economic or technical background as calculated according to the indicators.

The evaluation of action plans conducted by EWG 18-14 was based on the protocol described in the STECF 15-02 report. In line with the meeting Terms of Reference, experts considered the following when reviewing the action plans:

i. Indicators and fleet segments considered;
ii. Adjustment targets specified;
iii. Specification of tools to reach the adjustment targets;
iv. Specification of a clear implementation timeframe.

Expert judgements are based on comparing the submitted Member State action plans with the requirements of the 2014 Balance Indicator Guidelines (COM (2014) 545 Final). Such an approach in no way implies that the Expert group agrees with the criteria prescribed in the guidelines for determining whether a fleet segment is out of balance with its fishing opportunities.

4.2 Assessment of Member State Action Plans

Of the 23 Member States submitting fleet reports in 2018, there were 11 accompanying action plans.

4.2.1 Belgium (BEL)

EWG 18-14 notes that in its fleet report for 2017, no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.2 Bulgaria (BGR)

EWG 18-14 notes that no new or revised action plan is presented for the Bulgarian fleet and no additional fleet segments have been identified for action.

4.2.3 Croatia (HRV)

Indicators and Fleet Segments Considered

Croatia presented a new action plan with its Annual report on balance between fishing capacity and fishing opportunities for 2017. The Croatian authorities identify that the all PS segments, MGO and PMP as well as FPO VL0612 and HOK VL0006 are not in balance with their fishing opportunities. All of the above fleet segments operate in the Adriatic Sea.

Adjustment tools and targets

Croatia plans to implement additional effort limitations for vessels targeting anchovy and sardine to introduce complementary spatial and temporal closures. Measures will dominantly target protection of juvenile fish and redirection of fleet from the areas identified as nurseries or important for protection of early age classes of sardine and anchovy. Capacity reduction measures was implemented at a national level under national management plans (implemented by the EFF OP and EMFF OP) and applied to the purse seine fleet segments.

Over the next four years (2018 to 2021) Croatia is planning to apply at least the following measures as follows:

•Maximum of 180 fishing days per vessel per year;

• Maximum 20 days per vessel per month;

• Maximum of 144 days targeting anchovy and 144 days per vessel targeting sardine;

• Spatial and temporal closure of no less than 15 continuous days and up to 30 continuous days taking place between 1 April to 30 September in order to protect anchovy during spawning and additional closure period between 1 October and 31 March to protect sardine during spawning season;

• Closures for vessels over 12 m length overall for not less than 6 months which shall cover at least 30 percent of the area which has been identified as a nursery area or as an important area for the protection of early age classes of fish (in territorial and inner sea);

• Limitation of overall fleet capacity of purse seiners actively fishing for small pelagic stocks in terms of gross tonnage (GT) and/or gross registered tonnage (GRT), engine power (kW) and number of vessels, as recorded both in national and GFCM registers in 2014; and

• Maintaining catches below the level of total catch of small pelagics (sardine and anchovy) reported in 2014.

Croatia considers that purse seiners should be given the most attention in terms of capacity and effort reduction. In the PS segment, the intention to maintain the balance in relation to the availability of small pelagic resources is further supported by measures within the GFCM management plan for the GSA 17, as well as through the national management plan pursuant to the Mediterranean Regulation.

Timeframes for Implementation

The timeframe for implementation of the Croatian action plan is clearly specified and indicates that the intended reductions are expected to be achieved by the end of 2021.

Conclusion

The fleet segments, tools targets and timeframe for implementation of the measures proposed in the Croatian action plan submitted with their Annual fleet report for 2017 is summarised in Table 4.3.2.1.

Table 4.3.2.1 - Fleet segments, tools targets and timeframe for implementation of the measures proposed in the Croatian action plan submitted with their Annual fleet report for 2017

Fleet name	Area	Tools	Targets	Timeframe
PS VL0006 PS VL0612 PS VL1218 PS VL1824 PS VL2440	Adriatic Sea	-Reduction of effort -Time and spatial regulation -Temporal cessation -Revision of authorisations	Specified	2019, 2020 and 2021
PMP VL 0006 PMP VL 0612 PMP VL 1218	Adriatic Sea	-Implementation of new MP -Implementation of authorisation - Reduction of fishing effort -Reduction of fishing grounds -Improvement in MSC	Specified	MP is valid for three years (till 2021)
MGO VL0006 MGO VL0612 MGO VL1218	Adriatic Sea		Specified	
FPO VL0612 *FPO VL1218	Adriatic Sea	-Revision of Ordinance on fishing with passive gears -Improvement of control	Specified	2020
HOK VL0006	Adriatic Sea		Specified	2020

*Clustered to FPO VL0612

4.2.4 Cyprus (CYP)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.5 Denmark (DNK)

EWG 18-14 notes that in its fleet report for 2017, no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.6 Estonia (EST)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.7 Finland (FIN)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.8 France (FRA)

Indicators and Fleet Segments Considered

According to the French report submitted in 2018, only 6 fleet segments are identified as having structural overcapacity and are considered in the action plan.

Only biological indicators were used to determine which segments are out of balance. The segments indicated in the action plan are in accordance with these identified in the fleet report and presented in Table 4.2.8.1.

Table 4.2.8.1 - Imbalanced fleet segments reported in France fleet report.

Fleet name	**Area**
DFN VL1218	Bay of Biscay (BB)
Eel bycatch VL0024	Atlantic (AT)
DTS VL1824	Mediterranean Sea (MED)
DTS VL2440	
Eel bycatch VL0010	
MGO VL0012*	

* Only for vessels using the *gangui* method are identified as having an enduring imbalance.

Adjustment Targets and Tools

The French Authorities propose the tools presented in table 4.2.8.2 to achieve balance:

Table 4.2.8.2 – Tools applied in French the action plan

Tools		**Fleet**
Permanent cessation by scrapping	**(PC)**	all
Ban of new vessels	**(BA)**	all
Limiting capacity and effort	**(LE)**	(BB and MED_DTS)
Temporary cessation	**(TC)**	(BB)
Fleet conversion*	**(FC)**	(BB and MED_gangui)

* In order to improve greater selectivity for fishing gear.

The action plan also proposes to maintain the authorization system in the Mediterranean fleet segments with several limitations to vessel capacity, vessel and license transactions and vessel modifications. The action plan also proposes consultation with the National Committee for Maritime Fisheries and Fish Farming to explore capacity management measures for the Bay of Biscay fleet. For the fleet that catches eel in the Atlantic Ocean, France proposes an examination with the 'CMEA' committee of the National Committee for Maritime Fisheries and Fish Farming as regards conversion or transfer possibilities and additional measures for limiting fishing effort.

The action plan only establishes capacity adjustment targets (number of vessels, GT and kW) in relation to permanent cessation (Table 4.2.8.3)

Table 4.2.8.3 – Targets applied in the French action plan

			Fleet	**Proposed reduction**		
Area	**Gear**	**Length**	**Number**	**Number**	**GT**	**kW**
Bay of Biscay	DFN	VL1218	35	3-4	150	730
Atlantic - Eel		VL0024	435	16-17	78	1156
Mediterranean Sea	DTS	VL1824	28	1	50	240
		vl2440	31	2	230	620
	Eel	VL0010	204	10		
	MG0	VL0012	23	5		
Total			723	37-39	508	2746

Timeframes for Implementation

The action plan sets out a timescale for the permanent cessation to be complete by the end of 2020.

Conclusion

The French criterion for classifying imbalanced fleet segments is only based on biological indicators and an estimation of enduring imbalance. In addition to the SHI and SAR indicators, the member state used two additional criteria: Economic Dependency Indicator (EDI) and Number of Overexploited Stocks (NOS).

The 6 fleet segments classified as having enduring imbalance were identified and specific tools were tailored for each segment. Targets and associated timeframes for the permanent removal of vessels from the fleet are stated in the action plan.

The fleet segments, tools targets and timeframe for implementation of the measures proposed in the French action plan submitted with their Annual fleet report for 2016 is summarised in Table 4.2.8.4.

Table 4.2.8.4 – Tools, targets and time frame applied in the French action plan

Fleet name	Area	Tools*	Targets (n. Vessels)	Time frame
DFN VL1218	BB	PC BA LE TC FC	3-4	Until 2020
Eel bycatch VL0024	AT	PC BA	16-17	
DTS VL1824	MED	PC BA	1	
DTS VL2440		PC BA	2	
Eel bycatch VL0010		PC BA	10	
MGO VL0012*		PC BA FC	5	

* Only for vessels using the *gangui* method are identified as having an enduring imbalance.

PC – permanent cessation of fishing activities **TC** – temporary cessation of fishing activities

LE – limiting effort **BA** – ban of new vessels

FC – fleet conversion

4.2.9 Germany (DEU)

Germany presented same Action plan as in 2017 (see EWG 17-08) with some updated targets and tools. This Action plan covers five fleet segments that are considered to be imbalanced according to the Fleet report and based on the presented indicators.

There are no new fleet segments or new targets. However 2018 Action plan foresees an additional measure of a temporal cessation of the Western Baltic herring fishery in addition to that proposed for western Baltic cod in the previous action plan submitted in 2017. The updated Action plan omits any reference to permanent cessation of fishing activities and it proposes revisions to some other actions and time frames.

<u>Conclusion</u>

The German action plan identifies five imbalanced fleet segments and presents general and segment-specific measures. Tools and timeframes are defined in relation to such measures, however specific targets are not presented.

4.2.10 Greece (GRC)

EWG 18-14 notes that no new or revised action plan is presented for the Greece fleet and no additional fleet segments have been identified for action.

An action plan for the costal fleet segment was presented in last year Greece fleet report for 2016. Some of the measures from last year action plan continuing also in the year 2017.

4.2.11 Ireland (IRL)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.12 Italy (ITA)

Italy presented an updated action plan together with its Fleet report for 2017 which is a continuation to the administrative activities linked to the implementation of the Action plan submitted in 2017.

Indicators and Fleet Segments Considered

Italy assessed the fleet balance based on biological, economic and technical indicators for 2016:

- Sustainable Harvest Indicator (SHI)
- Return of Fixed Tangible Assets (ROFTA)
- Current revenue/Break-Even Revenue (CR/BER)
- Vessel Indicator (VI)
- Vessel utilisation indicator (VUI)

These indicators were calculated at the level of fishing method, length category, and GSA, and compared to its fleet report for 2016, there are no new segments identified as imbalanced.

Adjustment Targets and Tools

In the 2017 Action plan, targets for GT reduction of between 8 and 9% were set for different segments and GSA areas with permanent cessation as the primary tool to achieve this. The Action plan accompanying the fleet report for 2017 reports on the progress of this measure which is still ongoing.

The current plan includes additional measures intended to reduce fishing mortality on certain demersal resources including a 5% reduction in the number of fishing days in 2019 and a 10% reduction in 2020 on the number of fishing days recorded for 2018.

In addition, existing Biological Protections Zones are to be maintained and the action plan proposes that closures for trawl gears are to be introduced in such zones and also that additional zones are to be designated.

Pending the outcomes of Horizon 2020 MINOUW project, new technologies to improve selectivity of towed gears to minimize catches of undersized individuals will also be introduced.

Timeframes for Implementation

The Action plan sets timeframe for implementation of permanent cessation of activities and the catch reduction scheme. Other measures will be implemented according to national and regional management plans but within clear timeframe terminating in 2020.

Conclusion

Italy presented updated Action plan which includes measures in addition to that submitted in 2017. The updated plan does not include any new segments, but it contains complementary measures directed to reduction of effort and capacity with clear targets and timeframes.

4.2.13 Latvia (LVA)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.14 Lithuania (LTU)

EWG 18-14 notes that in its fleet report for 2017, no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.15 Malta (MLT)

Maltese authorities provide an action plan after taking into consideration the trend analysis of the economic performance of their fishing fleet and the trend analysis in economic indicators for the years 2008-2016.

Indicators and Fleet Segments Considered

In the fleet report submitted in 2018, five balance indicators were utilised:

- Inactive fleet indicator (for the reference year 2017);
- Vessel utilisation technical indicator (for the reference year 2017);
- Sustainable Harvest Indicator (for the reference year 2016 for four segments);
- Return on investment economic indicator (for the reference year 2016);
- Break-even revenue economic indicator (for the reference year 2016).

Based on a trend analysis in the economic indicators (Table 21 of the fleet report), the MS concludes that only one of the twenty-one segments analyzed, show deterioration in the economic performance and can be considered imbalanced.: Combined mobile and passive gears (PMP) VL0006, although the report (see section A.14.1 of the fleet report) erroneously states that the only segment that is considered imbalanced is the PGP segment.

The EWG notes that balance indicators are not provided for the majority of the small scale vessels (< 12m LOA).

Three of the segments (Fixed Netters (DFN) VL0612 and Purse Seiners (PS) VL0612, VL1824) consist of only 1 vessel and so the Maltese Authorities do not deem the economic indicators are representative of the fleet. This is the reason that 2017 Action Plan is not applicable for them (Table 4.2.15.1)..

Adjustment Targets and Tools

The tools proposed in the new action plan are several types and are intended to affect fleets segments in addition to the PMP VL0006 segment.

- Monitoring of landings through weighing of fishery products on the automatic weighing and labelling machines in order to guarantee that all catches will be recorded;
- Monitoring of activity:
    a. through an implementation of a sampling plan in order to monitor all landings of vessels below 10m;
    b. equipping vessels from 6 to 12 meters with a monitoring system to detect fishing activity.
- Conservation through introducing a prohibition of fishing in bays and creeks from 15 February to 30 August with all types of nets and closed season for the months of April and May addressed to FPO segments. The main aim of this tool is increasing the biomass by 2020;
- Interventions on the market to improve the returns of the sector, potentially including promotion of the fishery products or to incentives for the better organization of the sector to access more profitable markets.

Management measures under the Mediterranean Regulation, General Fisheries Commission for the Mediterranean (GFCM) and International Commission for the Conservation of Atlantic Tuna (ICCAT) are also mentioned in the action plan, and are said to contribute to achieving sustainable exploitation of stocks (Table 4.2.15.1)..

Timeframes for Implementation

The timeframe for implementation of the Malta action plan is clearly specified. The implementation of the measure related to the market intervention is ongoing. The implementation of the other measures has to start in 2017 and finish by 2020 (Table 4.2.15.1).

Table 4.2.15.1 – Summary of fleet segments, tools, targets and timeframes reported in Maltese fleet report/action plan.

Fleet name	Area	Tools	Targets	Timeframe
All vessels <12m	Mediterranean	Weighing of fishery products on the Automatic weighing and labeling machines	All catches recorded	2017-2020
All vessels <10m	Mediterranean	Sampling plan	All landings of vessels <10m monitored through sampling and sales notes	2017-2020
Vessels ≥ 6m and <12m	Mediterranean	The vessels will be equipped with a monitoring system to detect fishing activity leading to better monitoring.	All fishing activity	2017-2020
DFN	Mediterranean	Prohibition of fishing in bays and creeks from 15 February to 30 August with all types of nets.	Increase in biomass by 2020	2017-2020
FPO	Mediterranean	Closed season for the months of April and May	Increase in biomass by 2020	2017-2020
Entire fleet	Mediterranean	Analysis of the market to identify any structural deficiencies or market forces resulting in a low average price at first sale for fishery products	Identification of measures to achieve better prices at first sale to help generate more income for the fishermen	From 2016 onwards

Conclusion

The EWG notes that the current Action plan is similar to that presented in 2017, but includes an additional measure for vessels from 6 to 12 meters LOA; equipping with a system to monitor fishing activity.

The fleet segments that shows deterioration in the economic performance are clearly identified and specific tools are tailored them. In connection with this Malta presents various tools (conservation and monitoring) for the different segments, including closed areas for DFN, closed seasons for FPO and monitoring the landings and activities for the small vessels.

Other measures as an increase in monitoring or promotion of better marketing have been applied to all segments. However, the targets are still not always clear, for example an „increase of biomass by 2020" is listed for the DFN and FPO segments without specifying the species.

Targets, tools and timeframes for the Action plan are given in the table below.

4.2.16 The Netherlands (NLD)

EWG 18-14 notes that no fleet segments were identified by the Member State as being out of balance with available fishing opportunities and no action plan was provided.

4.2.17 Poland

Indicators and Fleet Segments Considered

The action plan proposed by the Polish authorities is based on the values of all indicators prescribed in the 2014 Guidelines (COM (2014) 545 Final) and presented in Fleet report for 2017. On that basis, the Polish authorities have identified that the following fleet segments are not in balance with their fishing opportunities:

- **VL0010 PG** – vessels with an overall length of up to 10 m, fishing with nets and other passive gear,
- **VL1012 PG** – vessels with an overall length of 10 m to 12 m, fishing with nets and other passive gear,
- **VL1218 DFN** – vessels with an overall length of 12 m to 18 m, fishing with nets,
- **VL1218 DTS** – bottom trawlers with an overall length of 12 m to 18 m,
- **VL1824 DTS** – bottom trawlers with an overall length of 18 m to 24 m.

All of the above fleet segments operate in the Baltic Sea. The rationale for identifying fleet segments as being out of balance with available fishing opportunities is given in the Member State's action plan:

*"The fishing capacity of the **VL0010 PG** segment is not in balance with available fishing opportunities, as demonstrated by its dependence on overfished stocks (sustainable harvest indicator) and the fact that its stocks are fished at levels in excess of target fishing mortality (stocks at risk indicator). The **VL1012 PG** segment is clearly not in balance with available fishing opportunities and is not economically viable, as demonstrated by a consistently negative trend in the segment's biological and economic indicator values for three consecutive years. The **VL1218 DFN** segment is not in balance with available fishing opportunities, as demonstrated by low levels of its both biological and economic indicators. The fishing capacity of the **VL1218 DTS** segment is not in balance with the resources it exploits, as demonstrated by negative trends in its*

*sustainable harvest and stocks at risk indicators for three consecutive years. The fishing capacity of the **VL1824 DTS** segment is not in balance with its fishing opportunities, but only slightly so. The biological indicator assessments for the segment indicate its permanent imbalance with available fishing opportunities and dependence on overfished stocks."*

Adjustment Targets and Tools

The programme for the temporary cessation of fishing activities referred to in Article 33 of Regulation (EU) No 508/2014 will be financed under the Operational Programme 'Fisheries and the Sea' (OP FISH 2014-2020) by the European Maritime and Fisheries Fund.

The tools in Polish action plan include the aid for temporary cessation of fishing activities and in accordance with Regulation No 508/2014 will concern: Polish fishing vessels which have carried out fishing activities in the Baltic Sea for at least 120 days during the last two calendar years preceding the date of submission of the application for support.

Timeframes for Implementation

Support per fishing vessel will be granted before the end of 2020 for a maximum period of six months. If the above support for a specified period is granted, all fishing activities carried out by the fishing vessel or the fisherman will be effectively suspended.

Conclusions

Based on the indicator values for 2014, 2015 and 2016 Ptheir fishing opportunities and accordingly has proposed an action plan.

The fleet segments, tools, targets and timeframe for implementation of the measures proposed in the Polish action plan submitted with their Annual Fleet report for 2017 is summarised in Table 5.2.17.1

Table 5.2.17.1. Summary of the Polish action plan

Fleet name	**Area**	**Tools**	**Targets**	**Timeframe**
VL0010 PG	Baltic Sea	TC*	None specified	Before 31 Dec. 2020
VL1012 PG	Baltic Sea	TC	None specified	Before 31 Dec. 2020
VL1218 DFN	Baltic Sea	TC	None specified	Before 31 Dec. 2020
VL1218 DTS	Baltic Sea	TC	None specified	Before 31 Dec. 2020
VL1824 DTS	Baltic Sea	TC	None specified	Before 31 Dec. 2020

* TC – temporary cessation of fishing activities funded under the EMFF

4.2.18 Portugal (PRT)

Indicators and Fleet Segments Considered

The Portuguese fishing fleet consisted of 7,922 vessels distributed over the mainland the Autonomous Region of the Azores and the Autonomous Region of Madeira. The Portugal national fleet report states that a combined analysis of the results of indicators for use of vessels and biological and economic sustainability shows that the Portuguese fleet capacity is in balance with fishing opportunities for all segments. However, a follow–up actions related to the Fleet report 2016 were presented for the vessels operating at the Autonomous Region of Madeira. For the segments which display some vulnerability, measures have been taken to adjust fleet capacity based on an Action Plan with a view to improving the fleet/available resources ratio.

The Action plan 2016 identifies two fleet segments that demonstrate potential signs of imbalance:

- **HOK VL2440** fishes exclusively for tuna using pole and line. It is known that catches of tuna fluctuate each year, partly because they are highly migratory, which explains the warning triggered by the ratios, which reflect the vessels' performance in the face of the constraints of the fishery.

- **MGP VL1824,** which consists of three seiners, has been hit by a sharp drop in the average price of Atlantic chub mackerel and blue jack mackerel over the last few years, resulting in low or negative returns and insufficient revenues to cover operating and capital costs.

The Portuguese action plan includes information about the results of biological and economic indicators for imbalanced fleet segments.

The technical indicator performance was not presented in the action plan. However, the fleet report provides technical indicator for the fleet which operates with respect to the Madeira region. The technical indicator for the segment **HOK VL2440** fell slightly between 2013 and 2017 due to variations in the seasonal nature of tuna fishing.

The structural imbalance is considered to exist in **HOK VL2440** vessels operating exclusively in tuna fishing. The catches of these species vary every year and the landings value of that segment cannot cover all expenses, meaning that this activity is unprofitable. However, sales in this segment have developed satisfactorily over the last two years, and it is expected that, for the reasons stated, 2017 will actually mark the reversal of the negative trend. The segment also has a negative biological indicator due to the segment is based on one species, the bigeye tuna (*Thunnus obesus*) which is considered by the most recent stock assessment published by ICCAT as being overfished with a fishing mortality in 2014 greater than the sustainable fishing mortality. Nevertheless, the ICS trend over the last three years has been favourable for the segment, which was at the positive result threshold (1.05) in 2017.

The segment **MGP VL1824** is the second segment where imbalance is considered. The target species for the segment is common mackerel and blue jack mackerel, which average price demonstrate a sharp decrease. As the result, the insufficient income cannot cover an operating and capital costs displaying low or negative profitability. Portugal assess the segment to have a negative biological indicator due to significant dependence on catches of the two species, horse mackerel (*Trachurus picturatus*) and common mackerel (*Scomber colias*), which are considered in the recent analytical assessment of the respective stocks exploited by the regional fleet as being overfished.

Adjustment Targets and Tools

The proposed adjustment targets are clearly stated in the action plan 2016:

- The capacity adjustment targets are to reduce the fleet segment **HOK VL2440** by decommissioning 2 vessels with approximately 23% of the total GT and 21% of a total kW out of 8 vessels at that segment.
- With the aim of adjusting fleet capacity to available resources, the decommissioning of 2 **MGP VL1824** vessels with approximately 73% of the total GT and 77% of kW of the total GT and kW out of 3 vessels at that segment.

It was expected that the introduced measures will be achieved through the permanent withdrawal from activity.

However, for the segment **HOK VL2440** in the follow–up actions in the updated Action plan 2017 it is stated, that taking into account that the segment usually shows a high degree of variability which could mean that the indicators, especially those of an economic nature, are not yet consolidated and bearing in mind that the trend regarding the biological indicators has been relatively positive, it was decided to postpone the possible implementation of the plan for permanent cessation of vessels until there is more solid information available on the sustainability of fishing activities in this segment.

Taking into account the sharp drop in average price for the target species in the segment **MGP VL1824** and negative biological indicators a proposal was made in 2017 to implement an action plan 2016 for permanent cessation of vessels. Ministry Implemented the Order No 392/2017 of 9 October 2017 approving the regulations governing the aid scheme for the definitive cessation of fishing activities using encircling gears – small pelagic species. The Ministerial Implementing Decree laid down the legal framework for applications for cessation of activities with a view to achieving the objective of reducing the gross tonnage (GT) of the fleet by 100 GT, as provided for in the action plan annexed to the 2016 Annual Report on the Fishing Fleet. The vessels' owners also were informed that if no applications were submitted, the Regional Directorate for Fisheries would amend the regulations governing seine fishing to ensure that the current negative situation with regard to resources and the socio-economic aspects of the activity could be reversed.

The Regional Directorate for Fisheries therefore proposes to implement the following measures in addition to the existing measures:

- Control of fishing levels related to the limiting the total fishing effort each year.
- Adjusting the fishing pattern (technical measures) related to the Increasing the minimum landing size for T. picturatus (blue jack mackerel) by 1 cm (from 15 to 16 cm) and introducing a temporary ban on purse-seine fishing for at least one month, coinciding with the peak spawning period of T. picturatus and S. colias (closed season).

Timeframes for Implementation

A clear timeframe for implementation of the proposed measures is described in the action plan. Regulations for the governing seine fishing should enter into force on 1

January 2019. The amount of support will be determined in accordance with the calculation methods referred to in the operational programme OP Mar 2020.

Conclusions

The updated in 2017 Portuguese Action plan 2016 contain detailed description about implemented actions related to the segment **MGP VL1824**. If fully implemented, the proposed actions may lead to an improvement in the economic performance. However, given the available data and information the EWG is unable to quantitatively assess the potential extent of any such improvement.

The vessels decommissioning for the segment **HOK VL2440** was postponed until more solid information on the sustainability of fishing activities in this segment will be available.

4.2.19 Romania (ROU)

In its fleet report for 2017, Romania concludes that none of its fleet segments are out of balance with their fishing opportunities. Nevertheless an action plan is proposed with the aim of manageing existing capacity and to enhance efficiency and performance .

EWG 18-14 notes that the action plan accompanying the fleet report for 2017 is the same as that submitted with the 2016 fleet report but with one additional fleet segment identified for action and removal of three segments that were previously included.

All segments identified for action have been assessed based on both economic and technical indicators. Romania proposes an action plan that includes the continuation of measures set out in the action plan presented with the fleet report for 2016.

4.2.20 Slovenia (SVN)

Slovenian action plan submitted with their 2017 fleet report is the same as that submitted with the fleet report for 2016 and no additional fleet segments have been identified for action.

Indicators and Fleet Segments Considered

The Slovenian fleet report for 2017 states that technical, economic and biological indicators were calculated only for:

- Purse seine (PS) fleet with two active vessels in 2017 (PS VL0612, PS VL1218). In the fleet report (Table 4), 3 vessels were reported, but one of the vessels in the segment PS VL1218 was active with PS in 2017. However, this vessel was also active with the fishing gear DFN and landings with this fishing gear were greater than landings with PS and consequently all its landings were attributed to the segment DFN VL1218.

Technical and economic indicators (not biological indictors) for:

- Drift and fixed nets fleet (DFN) up to 6 m LOA with 23 active vessels in 2017 (DFN VL0006).
- Drift and fixed nets fleet (DFN) with LOA 6-12 m with 33 active vessels in 2016 (DFN VL0612).

The Slovenian fleet report for 2017 provided an action plan for these fleet segments despite the MS expressing *"serious reservations regarding the application and appropriateness of the indicators proposed by the Guidelines".*

Adjustment Targets and Tools

Slovenia participates in the implementation of the multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 (Northern Adriatic Sea) (GFCM/37/2013/1) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea). In 2017, the multiannual management plan was amended once more to establish additional emergency measures for 2017 and 2018 for small pelagic stocks in the Adriatic Sea (GSA 17 and GSA 18).

For the purse seine segment, the tools applied under the management plan included in line with the "Recommendation GFCM/40/2016/3":

i. Fishing vessels targeting small pelagic species shall not exceed 180 fishing days per year, and not more than 20 fishing days per month with a maximum of 144 fishing days targeting sardine and with a maximum of 144 fishing days targeting anchovy.
ii. Spatio-temporal closures in view of protecting nursery and spawning areas in 2017 (minimum of 15 days for each species and maximum 30 days).
iii. Not exceeding the level of catches for small pelagics exerted in 2014 as reported in accordance with Recommendation GFCM/33/2009/3.
iv. The overall fleet capacity of purse seiners actively fishing for small pelagic stocks in terms of gross tonnage (GT) and/or gross registered tonnage (GRT), engine power (kW) and number of vessels, does not exceed in 2017 and 2018 the fleet capacity for small pelagics in 2014.

The action plan reports that four Slovenian vessels will be affected (but 2 vessels reported in PS segment), but it does not state whether the maximum days at sea permitted would result in a reduction in fishing effort, e.g. in comparison to the previous year's fishing activity.

Slovenia proposes the use of temporary cessation measures through its EMFF Operational Programme to support the implementation of temporal closures. It also extended its "Temporary non-issuing of licenses for commercial fishing for certain fishing gears" measure to the purse seine segment, thereby preventing additional vessels entering the fleet and increasing the fishing effort.

The action plans for the drift and fixed nets segment (DFN) up to 00-06m LOA and 06-12m LOA identify two areas that are intended to contribute to capacity management of the segments:

i. Implementation of the measure "Support for the design and implementation of conservation measures and regional cooperation" from Article 37 of the EMFF Regulation to ensure effective regional cooperation on the level of the North Adriatic Sea for implementation of the relevant measures of the CFP to contribute to the achievement of MSY for the stocks concerned.
ii. National management measures for limitation of the fishing effort, specifically the extension of "Temporary non-issuing of licenses for commercial fishing for certain fishing gears" to include drift and fixed nets (GNS and GTR), with the

aim of preventing additional capacity entering the the fleet and increasing the fishing effort.

There are no specific tools proposed in relation to the Regional Cooperation (Article 37) measure. No adjustment targets are specified in relation to either of the above measures.

Timeframes for Implementation

The timeframe for implementation of the Slovenia action plan for purse seine is led by the management plan for small pelagics in the North Adriatic and is proposed to be 'as long as requested by the pertinent GFCM Recommendations in force'.

The action plans suggest that the EMFF programme, running from 2014 to 2020, defines the timeframe for the implementation of temporary cessation measures for the purse seine segment and Article 37 support for the drift and fixed nets segments.

Conclusion

Slovenian action plan submitted with their 2017 fleet report is the same as that submitted with the fleet report for 2016 and no additional fleet segments have been identified for action.

The fleet segments, tools, targets and timeframe for implementation of the proposed measures is summarised in Table 5.2.20.1.

Table 5.2.20.1 Summary of the Slovenian action plan

Fleet name	Area	Tools*	Targets	Timeframe
PS VL 0612	North Adriatic	DaS	Max 180 days (max. of 144 fishing days targeting sardine and with max. of 144 fishing days targeting anchovy)	Annual**
		TC	None specified	2020 (EMFF end)
PS VL 1218	North Adriatic	DaS	Max 180 days (max. of 144 fishing days targeting sardine and with max. of 144 fishing days targeting anchovy)	Annual**
		TC	None specified	2020 (EMFF end)
DFN 0006	North Adriatic	LC	None specified	2020 (EMFF end)
DFN 0612	North Adriatic	LC	None specified	2020 (EMFF end)

* DaS = Days at Sea, TC = temporary cessation of fishing activities, LC = License cap,
** the current multi-annual plan has determined measures and targets for 2017 and 2018

4.2.21 Spain (ESP)

The Spanish fleet report for 2017 comprehensively details the thirteen fleet segments identified as imbalanced. It includes an action plan with a range of actions to improve the balance between fleet capacity and fishing opportunities.

<u>Indicators and Fleet Segments Considered</u>

The table 4.2.21.1 summarises the fleet segments considered imbalanced and the number and type of indicators that lead to this conclusion.

Table 4.2.21.1 – Summary of fleets, area and indicators reported in the Spanish report ad considered non in balance.

Fleet name	Area	No. of indicators	Type of indicator imbalance
DTS 10-24	Cantabria and NW	2	biological imbalance
DTS 24-40	Cantabria and NW	2	biological imbalance
DFN 18-40	Cantabria and NW	2	biological imbalance
HOK 00-18	Cantabria and NW	2	biological imbalance
HOK 18-24	Cantabria and NW	2	biological imbalance
DTS 18-24	Mediterranean	2	biological imbalance
DTS 24-40	Mediterranean	2	biological imbalance
PS 00-18	Mediterranean	2	biological imbalance
PS 18-24	Mediterranean	2	biological imbalance
PS 24-40	Mediterranean	2	biological imbalance
PGO 00-18	Mediterranean	2	biological imbalance
PGO 18-40	Mediterranean	2	biological imbalance
HOK 00-24	Other Fishing Regions	2	economic imbalance 2016

The report also notes that the segments presented in the table 4.2.21.2 show that some indicators are imbalanced, but positive trends and the interpretation of technical imbalance for artisanal fleets with low levels of activity are used to consider that the fleet is balanced.

Table 4.2.21.2 – Summary of fleets, area and indicators reported in the Spanish report with positive trends.

Fleet name	Area	No. of indicators	Type of indicator imbalance
Cantabria and NW	**DRB 00-18**	**2**	imbalance only technical
Cantabria and NW	**PGO 00-40**	**2**	imbalance only technical
Mediterranean	**HOK 00-18**	**2**	economic imbalance 2014-2015

Mediterranean	**PMP 00-18**	**2**	imbalance only technical
Canaries	**PMP 00-18**	**2**	imbalance only technical

Adjustment tools and targets
The Action Plan details the permanent cessation undertaken in 2017 in relation to the fleet segments (considered imbalanced in the 2017 Action Plan), listing the number of vessels, GT and engine power removed from these fleets. 34 vessels were permanently removed from the Cantabria and North West fleets and 65 from the Mediterranean fleets. The Action Plan also reports four vessels scrapped from the Gulf of Cadiz and one from the Canaries fleet that were identified as imbalanced in the previous year's fleet report.

Permanent cessation could be undertaken with EU aid up to the end of 2017, but this tool is not proposed in the Action Plan for 2018 onwards. The Action Plan proposes a number of other measures to contribute towards improvements in the imbalanced fleet segments:

- **The collection of biological data:** through support to several research programmes in the Mediterranean (MEDITS and MEDIAS) and additional research in the NW Cantabria region.
- **Measures aimed at reducing effort:** the regulation of effort and distribution of fishing opportunities. This system of re-distribution is being applied through Ministerial Orders to species and fleets of the Cantabrian National and Northwest Calafies and the Gulf of Cádiz. Temporary changes to modality permits and base ports. For example, in the Mediterranean, a study will be carried out to assess changes in the base port towards GSAs where more over-exploited or high-risk species are captured in this area.
- **Measures for the recovery of ecosystems:** creation of Marine Reserves for Fishing Interest such as spawning and nursery areas; the expansion and improved management of existing MPAs.
- **Measures to promote fleet competitiveness:** prioritising EMFF funding for imbalanced fleet segments or areas associated with these fleets.
- **Measures to improve marketing**: finding new markets and improved market conditions
- **Fisheries surveillance measures:** improved control on weighing at landing and compliance with technical measures.

The proposed effort reduction measures are targeted towards the fisheries exhibiting fleet imbalance, but no specific targets are set, e.g. in terms of capacity reduction. Some of the proposed measures are still in development and there is no indication of time frames associated with the tools proposed, other than the suggestion that the redistribution of fishing opportunities will be a five-year process. Other measures are more generic in nature, but it is proposed that imbalanced fleets are prioritised for EMFF funding support in improved competitiveness and market development (Table 4.2.21.3).

Table 4.2.21.3 - Overview of tools, targets and timeframes for the imbalanced fleet segments

Fleet name	Area	Tool	Target	Timeframe
DTS 10-24	Cantabria and NW	**Reallocation of fishing opportunities between fleet segments**	Not specified	Five years
DTS 24-40	Cantabria and NW			
DFN 18-40	Cantabria and NW			
HOK 00-18	Cantabria and NW			
HOK 18-24	Cantabria and NW			
DTS 18-24	Mediterranean	**Technical measures** **Temporary cessation** **Effort reduction**	Not specified	In development
DTS 24-40	Mediterranean			
PS 00-18	Mediterranean	**Zonation,** **Temporary cessation Quota for anchovy & sardine**	Not specified	In development
PS 18-24	Mediterranean			
PS 24-40	Mediterranean			
PGO 00-18	Mediterranean	**Licence limitation** **Temporary cessation Swordfish quota allocation**	Not specified	Ministerial Order of 2017: implementation from 2018 onwards
PGO 18-40	Mediterranean			
HOK 00-24	Other Fishing Regions	**Temporary cessation** **Aid to vessels impacted by end of Morocco agreement**	Not specified	In development

Conclusion

The 2018 Action Plan for Spain provides information that details the fleet segments that are considered imbalanced. It goes on to propose a range of effort reduction measures, some specific to the imbalanced fleets, and prioritised EMFF support for imbalanced fleets to improve competitiveness. A number of the measures are reported to be in development and no specific targets and timeframes are given.

4.2.22 Sweden (SWE)

No new or revised action plan is presented for the Swedish fleet and no additional fleet segments have been identified for action.

4.2.23 *United Kingdom (GBR)*

In its annual fleet report for 2017, the UK concludes that having assessed each fleet segment against the combination of indicators, none of them can be conclusively defined as out of balance using the full range of indicators available. Nevertheless, the UK notes that as stated within the guidelines issued to Member States, it should be borne in mind that where key thresholds for the indicators appear to have been exceeded, it is indicative of a **potential** imbalance between fishing capacity and fishing opportunity within the fleet segments concerned. Accordingly, as in its fleet report for 2016, the UK has proposed an action plan for all fleet segments that show potential imbalance. The action plan contains adjustment targets and tools to address the potential imbalances of these fleet segments. The Action plan is presented in tabular form and includes each fleet segment that has indicator values outside of the recommended balance indicator thresholds. 15 fleet segments are identified as potentially being out of balance and identified for action.

The EWG notes that the year of implementation of some of the proposed measures in the UK Action plan is 2015.

With regards to the impacts of the landing obligation on the balance of the fleet, the UK states that: "*As result UK fisheries administrations may in the future want to consider the use of permanent and temporary cessation in addition to the existing suite of actions. These measures are not included in the current Fleet Action Plan or Operational Programme, but may be introduced in the future depending on need*".

Indicators and Fleet Segments Considered

All fleet segments with potential imbalance from an economic or biological point of view for three consecutive years are considered in the UK action plan (See the action plan which is in tabular form, including each segment with indicator values, adjustment targets, tools and time frame).

Adjustment Targets and Tools

The basic targets set out in the UK action plan for achieving balance of the fleet are to adjust the value of indicators that are currently outside of recommended thresholds to bring them within such thresholds (SHI, SAR, ROI, CR/BR).

The adjustment tools presented by the UK are clearly set out in the UK Action plan

The UK action plan asserts that the adjustment tools are specific to different fleet segments, and are tailored so that their performance should lead to the achievement of targets (thereby altering indicators to within the recommended thresholds).

Timeframes for Implementation

The timeframe for implementation of the UK action plan is clearly specified. Implementation of some of the measures commenced in 2015 and the end date for each of the planned measures is also specified. In addition, the deadline for completion of the action plan in set as 2020.

Conclusion on Assessment of Proposed Measures

While the UK concludes that none of its fleet segments can be conclusively defined as out of balance using the full range of indicators available, it recognises that imbalance potentially exists for some fleet segments. Therefore, the UK has proposed an action plan for all such segments and associated adjustment targets and tools.
The UK action plan is based on a full assessment of indicators as included in the fleet report. The overall target set by the UK for achieving balance of the fleets is to adjust the value of indicators that are currently outside of recommended thresholds to bring them within specified thresholds. The tools and timeframes for implementation to achieve the targets in the action plan are clearly outlined.

5 TOR 3 – COMMENTS ON PROPOSED MEASURES

5.1 Introductory Remarks for TOR 3

In addressing this term of reference, the Expert Group adopted a step-wise approach as follows:

1. The action plans submitted together with the 2017 Member States' fleet reports were reviewed to identify any fleet segments were additional to those included in any previous action plan. Such additional segments are listed under "Identification of additional fleet segments" in the sections below relating to each Member State.
2. The information provided in support of the measures proposed for the additional segments was reviewed to ascertain whether such measures are likely to be sufficient to redress any imbalance in the additional segments. Relevant comments are given under "Comments on proposed measures" in the sections relating to each Member State.
3. In some cases, Member States did not present new or revised action plans or has reported on action plans implemented prior to 2017. In such cases the Expert Group has commented accordingly.
4. Any conclusions arising from points 1-3 above review are also listed by Member State

To undertake such an assessment, the EWG would require that the Member State's action plan contains the minimum information outlined in section 2 of this report.

5.2 Comments on Proposed Measures

5.2.1 Belgium (BEL)

Identification of Additional Fleet Segments

No new or revised action plan is presented for the Belgian fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.2 Bulgaria (BGR)

<u>Identification of Additional Fleet Segments</u>

No additional fleet segments have been identified as being out of balance with their fishing opportunities in the Bulgarian fleet report for 2017 and no action plan is presented.

<u>Comments on Proposed Measures</u>

In the absence of any new action plan there are no additional measures on which to comment.

<u>Conclusion</u>

There is no new or revised action plan associated with the Bulgarian fleet report for 2017 hence there are no measures to assess.

5.2.3 Croatia (HRV)

<u>Identification of Additional Fleet Segments</u>

The Croatia fleet report for 2017 identifies additional fleet segments that are out of balance with their fishing opportunities compared to those in the action plan submitted with the fleet report for 2016: MGO and PMP as well as FPOVL0612 and HOKVL0006.

<u>Comments on Proposed Measures</u>

Croatia plans to implement additional effort limitations for vessels targeting anchovy and sardine to introduce complementary spatial and temporal closures. Measures will dominantly target protection of juvenile fish and redirection of fleet from the areas identified as nurseries or important for protection of early age classes of sardine and anchovy. Capacity reduction measures was implemented at a national level under national management plans (implemented by the EFF OP and EMFF OP) and applied to the purse seine fleet segments.

Over the next four years (2018 to 2021) Croatia is planning to apply at least the following measures as follows:

- Maximum of 180 fishing days per vessel per year;
- Maximum 20 days per vessel per month;
- Maximum of 144 days targeting anchovy and 144 days per vessel targeting sardine;
- Spatial and temporal closure of no less than 15 continuous days and up to 30 continuous days taking place between 1 April to 30 September in order to protect anchovy during spawning and additional closure period between 1 October and 31 March to protect sardine during spawning season;

- Closures for vessels over 12 m length overall for not less than 6 months which shall cover at least 30 percent of the area which has been identified as a nursery area or as an important area for the protection of early age classes of fish (in territorial and inner sea);
- Limitation of overall fleet capacity of purse seiners actively fishing for small pelagic stocks in terms of gross tonnage (GT) and/or gross registered tonnage (GRT), engine power (kW) and number of vessels, as recorded both in national and GFCM registers in 2014; and
- Maintaining catches below the level of total catch of small pelagics (sardine and anchovy) reported in 2014.

Since these measures are directed to improvement of stock status they need to be applied over a longer period in order to have effect. This is also important due to a time delay in stock assessment which is needed to assess their effect on stocks. Following the obligations as previously listed, Croatia plans to implement temporary cessation of fishing activities funded through EMFF during January and May based upon the provisions of the National management plan for purse seine

<u>Conclusion</u>

The EWG 18-14 considers that effort management, no-take zones, and additional technical measures, if effectively implemented, may offer a means to manage capacity utilization and deployment, in terms of redressing any imbalance between capacities and fishing opportunities.

5.2.4 Cyprus (CYP)

<u>Identification of additional fleet segments</u>

No new or revised action plan is presented for the Cyprus fleet and no additional fleet segments have been identified for action.

<u>Comments on Proposed Measures</u>

In the absence of any new or revised action plan there are no measures on which to comment.

<u>Conclusion</u>

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.5 Denmark (DNK)

<u>Identification of Additional Fleet Segments</u>

No new or revised action plan is presented for the Danish fleet and no additional fleet segments in 2017 have been identified for action.

<u>Comments on Proposed Measures</u>

In the absence of any new or revised action plan there are no measures on which to comment.

<u>Conclusion</u>

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.6 Estonia (EST)

Identification of Additional Fleet Segments

No new or revised action plan is presented for the Estonian fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn

5.2.7 Finland (FIN)

Identification of Additional Fleet Segments

No additional fleet segments have been identified as being out of balance with their fishing opportunities in the Finnish fleet report for 2017 and no action plan is presented.

Comments on Proposed Measures

In the absence of any new action plan there are no additional measures on which to comment.

Conclusion

There is no new or revised action plan associated with the Finnish fleet report for 2017 hence there are no measures to assess.

5.2.8 France (FRA)

Identification of Additional Fleet Segments

Compared to the 2017 French fleet report, the 2018 report identifies 1 additional fleet segment that are out of balance with their fishing opportunities: all vessels that have by-catch fishing for eels in the Mediterranean Sea. In contrast to the 2017 report, 5 fleet segments were no longer considered to be out of balance and not included in the action plan proposed for 2018.

Comments on Proposed Measures

The adjustment tools and timeframes that are proposed in the 2018 fleet report are similar to those proposed in the previous report. EWG 18-14 notes that the reduction targets for the permanent cessation of fishing activity in terms of number of vessels, GT and kW in the 2018 action plan are lower than those listed in the 2017 action plan due to the decrease of imbalanced fleet segments and the target reduction for the fleet segment “Atlantic Eel” in the Atlantic Ocean.

Comparison of capacity reduction targets (Number of vessels, GT and kW) in the action plans (AP) proposed in the 2017 and 2018 Annual fleet reports for France are presented in Table 5.2.8.1

Table 5.2.8.1 – Targets comparison 2017 and 2018

			Targets 2017 AP			Targets 2018 AP		
Area	Gear	Length	Number	GT	kW	Number	GT	kW
Bay of Biscay	DFN	VL1218	3-4	150	730	3-4	150	730
		VL1824	2-3	260	760			
North Sea East Coast	DFN	VL1012	10	104	1606			
Atlantic - Eel		VL0024	40-50	220	3250	16-17	78	1156
Mediterranean Sea	DTS	VL0612	1	10	100			
		VL1218	2	20	400			
		VL1824	1	50	240	1	50	240
		VL2440	2	230	620	2	230	620
	MGO	VL0012	5			5		
Mediterranean Sea-Eel		VL0010				10		
Total			66-78	1044	7706	37-39	508	2746

Conclusion

The information presented in the report and action plan is insufficient to assess whether the proposed measures are likely to redress any imbalances in the fleet segments identified by the Member State in the action plan accompanying the fleet report for 2017.

5.2.9 Germany (DEU)

Germany presented updated Action plan with additional measure of temporal cessation which Germany considered necessary to implement as emergency measure on German fishing vessels targeting herring in sub-areas 22-24. According to the Action plan any further suspension of fishing activities, including segments concerned and the level of support will be decided on a yearly basis once catch level recommendations have been made and quotas have been set.

Conclusion

With the data and information provided in the fleet report for 2016 and associated action plan, the EWG 18-18 cannot determine whether the measures proposed can be considered sufficient to balance the additional imbalanced fleets.

5.2.10 Greece (GRC)

Identification of Additional Fleet Segments

No additional fleet segments have been identified as being out of balance with their fishing opportunities in the Greece fleet report for 2017 and no action plan is presented.

Comments on Proposed Measures

In the absence of any new action plan there are no additional measures on which to comment.

Conclusion

There is no new or revised action plan associated with the Greece fleet report for 2017 hence there are no measures to assess. The EWG notes that the measures proposed in the action plan accompanying the 2017fleet report are still on-going.

5.2.11 Ireland (IRL)

Identification of Additional Fleet Segments

No new or revised action plan is presented for the Irish fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.12 Italy (ITA)

Identification of Additional Fleet Segments

The action plan accompanying the fleet report for 2017 does not include any additional segments compare to one submitted with fleet report for 2016. However, it proposes additional measures in an attempt to redress the perceived imbalance in those segments identified as such in the fleet report for 2016.

Comments on Proposed Measures

In 2017 Action plan Italy has proposed the following tools for addressing imbalance of segments:

- Reduction of capacity through permanent cessation
- Reduction of fleet activity;

- Space and time-related fishing restrictions; and
- Permitting schemes for certain fisheries.

The plan proposes additional measures for implementation through the National Management Plans for the fishing fleets to catch demersal resources in GSA 9 (Ligurian and Central North Sea), GSA 10 (Central and Southern Tyrrhenian Sea), GSA 11 (Sardinia), GSA 16 (Strait of Sicily), GSA 17 (Southern Adriatic Sea) and GSA 18 (Western Adriatic Sea) and GSA 19 (Western Ionian Sea)). These measures will target 5% reduction in the number of fishing days for 2019, and 10% for 2020 relative to the total fishing days in 2018. The measures aim to reduce fishing mortality for relevant species in the areas.

In addition, Action plan proposes a set of closures for bottom trawlers in existing Biological Protection Zones (ZTB) and establishment of additional ZTB. The measures are outlined in Table 5.2.12.1.

Table 5.2.12.1. Target species, by-catch species, managed fisheries, and main additional technical measures in terms of closing bottom trawls of critical areas to improve the sustainability of demersal fisheries in the different GSAs.

GSA	Target species	By-catch species	Fishing method	Additional technical measures
9	Hake, red mullet, red mullet, deep-water rose shrimp and Dublin Bay	White musky octopus and red shrimp	Bottom trawling, and polyvalent vessels	2 ZTB in force and 5 new proposals (hake and deep-water rose shrimp)
10	Hake, red mullet and deep-water shrimp	Giant red shrimp	Bottom trawling, and polyvalent	4 ZTB in force and 2 new proposals (hake and deep-water rose shrimp)
11	Hake, red mullet and red shrimp	Red mullet, purple shrimp, musky octopus, common octopus and common squid	Bottom trawling, and polyvalent vessels	3 ZTB in force and 3 new proposals (black hake, deep-water rose shrimp and red shrimp)
16	Hake and deep-water rose shrimp	Blue and red shrimp, musky octopus, red mullet, red mullet, Norway lobster and pandora	Bottom trawling, and polyvalent vessels	3 ZTB in force and 3 new proposals (hake and deep-water rose shrimp)
17 & 18	Hake, red mullet, common sole (GSA 17) and deep-water rose shrimp	Red mullet (17), canas, white curled octopus, Norway lobster, cuttlefish municipality (17) and monkfish (18)	Bottom trawling (17), polyvalent vessels and longlines (18)	7 ZTB in force, including the Fossa di Pomo. Other proposals for the protection of hake and rose shrimp.
19	hake, white shrimp and deep-water rose shrimp	Deep red shrimp, red mullet and red mullet	Bottom trawls, longline and polyvalent vessels	1 FRA GFMC (Santa Maria di Leuca) for the protection of white coral and 2 proposed for protection of native hake and white shrimp.

Plan also proposes implementation of new technologies to improve selectivity of towed gears pending the outcomes of Horizon 2020 MINOUW project to minimise the catches of under-sized species such as deep-water rose shrimp (*Parapenaeus longirostris*) and European hake (*Merluccius merluccius*), which together with horse mackerel (*Trachurus spp*.) are the most important unwanted catches in the deep-water rose fishing in the Sicilian channel.

Conclusion

Italy proposed additional actions to be taken in order to address imbalance with available resources which are predominantly directed to reduce fishing mortality on certain target species. Proposed measures aim to reduce fishing effort and capacity but with the data and information provided in the fleet report for 2017 and associated action plan, the EWG 18-14 cannot determine whether they can be considered sufficient to redress the perceived imbalance in the fleet segments concerned.

5.2.13 Latvia (LVA)

Identification of Additional Fleet Segments

No new or revised action plan is presented for the Latvian fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn

5.2.14 Lithuania (LTU)

Identification of Additional Fleet Segments

The 2017 Lithuanian fleet report does not contain any new or revised action plan and no explicit information on the implementation or outcomes of the action plan contained in the 2017 fleet report is provided.

Comments on Proposed Measures

In the absence of any new action plan there are no measured on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.15 Malta (MLT)

<u>Identification of additional fleet segments</u>

The new Maltese action plan provided with the fleet report for 2017 is similar to that presented with the fleet report for 2016. It includes one additional fleet segment; combined mobile and passive gears (PMP) VL0006 and an additional measure for the 6-12 m fleet.

<u>Comments on Proposed Measures</u>

The additional measure that was not present in the previous Action plan is equipping vessels from 6 to 12 meters with a system to monitor fishing activity. This should lead to better monitoring of all fishing activity of those vessels.

According to the new action plan, the only segment which is shown as imbalanced is the PMP VL0006 segment (see table 23 of the Action plan). Since PMP segment is a mixed gear segment, it is expected to be indirectly addressed through the measures for the other segments as per Action plan.

EWG 18-14 notes that no fishing capacity adjustments are foreseen in the Maltese action plan.

<u>Conclusion</u>

STECF EWG 18-14 notes that the implementation of some of the measures continues from the previous year but no information on the progress was provided.

The uses of trend analysis of the economic performance of Maltese fishing fleet for the years 2008-2016 is a step into the right direction. The economic indicators show improvement in the overall trend when compared to previous years (2008-2016) and thus, EWG 18-14 may consider that the implementation of the measures so far contributes to this improvement.

However, bearing in mind that the most of the fleet segments are showing negative economic indicators it might be helpful if additional measures are included in order to improve the economic performance. These additional measures could improve the balance in those segments.

Given the data and information provided the EWG is unable to quantitatively assess the impact of the proposed measures on the fleet segments concerned.

5.2.16 The Netherlands (NLD)

<u>Identification of additional fleet segments</u>

No new or revised action plan is presented for the Netherlands fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.17 Poland (PLD)

Identification of Additional Fleet Segments

Three additional fleet segments are identified in the Polish action plan 2017 as being out of balance with their fishing opportunities:

- **VL0010 PG** – vessels with an overall length of up to 10 m, fishing with nets and other passive gear,
- **VL1012 PG** – vessels with an overall length of 10 m to 12 m, fishing with nets and other passive gear,
- **VL1218 DFN** – vessels with an overall length of 12 m to 18 m, fishing with nets.

Comments on Proposed Measures

The Action plan for the fleet report 2017 propose the aid for temporary cessation of fishing activities and in accordance with Regulation No 508/2014 will concern: Polish fishing vessels which have carried out fishing activities in the Baltic Sea for at least 120 days during the last two calendar years preceding the date of submission of the application for support.

The programme for the temporary cessation of fishing activities referred to in Article 33 of Regulation (EU) No 508/2014 will be financed under the Operational Programme 'Fisheries and the Sea' (OP FISH 2014-2020) by the European Maritime and Fisheries Fund.

Support per fishing vessel will be granted before the end of 2020 for a maximum period of six months. If the above support for a specified period is granted, all fishing activities carried out by the fishing vessel or the fisherman will be effectively suspended.

Conclusion

The Polish Action plan include clear description of new individual fleet segments which are not in balance with available fishing opportunities and corrective actions have been taken to achieve the balance.

In addition, the Action plan include two fishing segments listed in previous Action plan:

- **VL1218 DTS** – bottom trawlers with an overall length of 12 m to 18 m,
- **VL1824 DTS** – bottom trawlers with an overall length of 18 m to 24 m.

Poland continue implement aid for the temporary cessation for these two imbalanced segments also after 31 December 2017.

5.2.18 Portugal (PRT)

Identification of additional fleet segments

Portugal provided a follow-up actions related to the previous Action plan (Fleet report 2016). The new edition of the Action plan includes some modifications to the proposed measures. There are no additional segments included into the action plan accompanying the Fleet report 2017.

Comments on Proposed Measures

The vessels decommissioning for the segment HOK VL2440 as proposed in the action plan accompanying the 2016 fleet report was postponed until more solid information on the sustainability of fishing activities in this segment will be available.

The Portuguese Action plan 2016 updated in 2017 contain detailed description about new implemented actions related to the segment MGP VL1824.

Conclusion

In the fleet report for 2017 no additional imbalanced fleets are identified although for some of the segments previously identified for action the relevant measures in the action plan have been changed.

5.2.19 Romania (ROU)

Identification of Additional Fleet Segments

The total number of the segments included in the action accompanying the Romanian fleet report for 2017 is 4, which is 2 fewer segments compare to the action plan submitted with the fleet report for 2016.

The fleet segment identified for action in the fleet report for 2017 that is additional to those identified for action in the 2016 fleet report are given is segment VL0006 PG, represented by 12 vessels.

Comments on Proposed Measures

Segment VL0006 PG - considering the VUR values a decrease is observed from the year 2016 from 0, 20 to 0.11 in year 2017. Still the value indicator is under reference point 0.7 that meant the segment could be considered underbalanced. The Plan would consider continuing the specific measures adopted in the last two years and added others:

- Issuing fishing permits/licenses in order to catch other alive marine resources than fish (such as molluscs, Rapa whelk) in order to reduce the pressure on pelagic fish stocks. - Deadline: annually until 2020;

- Continuing the organising professional meetings with scientists and fishermen. - Deadline: 31.12.2020, in 2017 two such some meetings were assured.

- Limitation of the fishing licenses number to control the pressure on the pelagic fish stocks;

- As a measure, applicable for all fleet segments, including this one, is to control the issuing licence for new entry vessels in order to assure the total capacity ceiling at national level;

- Reinforcing the control of temporary cessation of fishing activities for demersal species catches (turbot and picked dog fish) during prohibition period - Deadline: annually until 2020; Romanian NAFA has organized the first meeting dedicated to this measure between fishermen and scientists meeting on 13-16.02.2017 in the National Institute for Marine Research and Development in Constanta. The specialists of this institutes underlined to fishermen the necessity to use new and more selective gears, the characteristics and the benefits of these gear types. Meantime it was established that scientists will support fishermen to successfully design the projects that would be needed for EMFF applications to finance the procurement of the new gears.

Conclusion

Although Romania in the report stated that Romania's fishing fleet in 2016 was in balance with the fishing opportunities in the Black Sea national fishing area, they provided action plan for some fleet segments. Action plan contains a series of actions for all the fleet segments in order to improve the economic performance. With the data and information provided in the fleet report for 2017 and associated action plan, the EWG 18-14 cannot determine the likely effects of the proposed measures.

5.2.20 Slovenia (SVN)

Identification of Additional Fleet Segments

No additional fleet segments in the action plan accompanying the fleet report for 2017 were identified by the Slovenian authorities as being out of balance with their fishing opportunities compared to the previous year’s action plan.

Comments on Proposed Measures

In the absence of any new action plan there are no measured on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn.

5.2.21 Spain

Identification of Additional Fleet Segments

A comparison of the 2017 and 2018 fleet reports for Spain reveals that there is one new fleet segment from the 13 identified as imbalanced compared to the 29 identified in the 2017 fleet report. That segment is the 10-24m trawlers in Cantabria and the North West.

This 10-24m fleet was categorised in 2016 and comprises 12 vessels, almost all of about 12 metres in length with small-scale gear, and 3 trawlers of about 20 metres.

The economic indicators show a strong improvement over the previous year, but the fleet is considered imbalanced due to its reliance on overexploited stocks, namely the southern hake stock.

Comments on Proposed Measures

As with the 24-40 fleet, which continues to show imbalance, the action plan proposed actions to reduce the catch of southern hake.

The 2018 action plan reports that one trawler from the Cantabria and NW area of 251 GT and 368kw was removed through permanent cessation in 2017. No permanent cessation is proposed for 2018, but additional action is planned through the re-allocation of fishing opportunities between vessels, stating that, "The bottom trawling fleet of the Northwest Bay of Biscay can carry out definitive transfers between vessels. This instrument will allow an orderly restructuring of the fleet." The Action Plan envisages this re-allocation will result in a re-structuring of the fleet that will take at least five years to show positive effects.

Conclusion

Given the available data and information the EWG is unable to quantitatively assess the potential impact of the proposed measures.

5.2.22 Sweden (SWE)

Identification of Additional Fleet Segments

No new or revised action plan is presented for the Swedish fleet and no additional fleet segments have been identified for action.

Comments on Proposed Measures

In the absence of any new or revised action plan there are no measures on which to comment.

Conclusion

In the absence of any new or revised action plan there are no conclusions to be drawn

5.2.23 United Kingdom (UK)

Identification of additional fleet segments

The total number of the segments included in the action accompanying the UK fleet report for 2017 is 15, which is 10 fewer segments compare to the action plan submitted with the fleet report for 2016.

The fleet segments identified for action in the fleet report for 2017 that are additional to those identified for action in the 2016 fleet report are given in Table 5.2.23.1.

Table 5.2.23.1 Additional fleet segments identified as imbalanced and included in the action plan submitted with the UK fleet report for 2017.

		Number of vessels in 2016	**% of total tonnage landed in 2016**
DFN	VL0010	590	0.6
DTS	VL0010	237	0.7
	VL1012	85	0.6
HOK	VL1012	18	<0.05
TBB	VL1824	17	0.6
	VL2440	33	1.0
	VL40XX	8	0.4
TM	VL2440	1	0.9

Comments on Proposed Measures

The adjustment measures proposed by UK regarding the above (and other) segments are clearly set out in the proposed action plan. The EWG notes that all of the measures are intended to redress the potential imbalance in the segments identified. This is to be achieved through continued implementation of and compliance with existing or future legislative provisions regarding technical measures, TAC limits and the landing obligation.

Conclusion

With the data and information provided in the UK fleet report for 2017, the EWG 18-14 cannot determine whether the measures proposed in the UK action plan for the fleets that are potentially out of balance with their fishing opportunities, can be considered sufficient to redress any potential imbalance.

5.3 Concluding remarks on Assessment of Proposed Measures in Action Plans

In general, while it was relatively straightforward to identify in Member States' action plans, those fleet segments that were additional to those included in the action plans submitted with their fleet reports for 2015, the information presented was only sufficient to note the actions that Member States intend to implement to address any imbalances in the fleet segments identified and was not sufficient to quantitatively assess whether such measures would be sufficient to redress any such imbalances.
Furthermore, such a quantitative assessment will not be possible unless the specific objectives of the measures proposed for each of the segments identified as being out of balance are specified by the Member State. Even in such cases, any quantitative assessment is likely to be trivial. For example, if a Member State plans to reduce a segment's capacity by 20% of GT, without a stated objective of how such a measure will

redress the imbalance in that segment, the assessment could only conclude the obvious i.e. that removing 20% of GT will result in a 20% reduction in GT. To provide a more informative assessment, the Member State would need to specify what the intended measure is likely to lead to in terms of how it will redress the imbalance they have identified, and that will depend entirely on the nature of the imbalance and which indicators and other factors have been taken into account in determining the imbalance. Nevertheless, the indicators are not metrics and the judgement as to whether a segment is in or out of balance with its fishing opportunities has to be made taking into account other factors. Furthermore, measures simply to improve an adverse indicator value will not guarantee that any imbalance, if it truly exists, will be redressed; it will simply mean that the indicator value has improved.

The expert group also considers that previous comments and criticisms on the indicators and criteria specified in the 2014 Balance Indicator Guidelines given in previous balance EWG and STECF reports remain valid and using the indicators in such a way does not necessarily indicate imbalance. Hence, it is not reasonable to expect to be able to provide an informed assessment of whether proposed measures will improve or redress any imbalances identified if despite the indicator values, no such imbalances actually exist.

6 TOR 4 – LIST OF FLEET SEGMENT OUT OF BALANCE

6.1 Introductory Remarks for TOR 4

For each supra-region tables (Tables 6.1.1-6) are presented with the list of those fleet segments that according to the 2016 values for either i) the SHI or ii) the SAR calculated by STECF are out of balance with their fishing opportunities, according to the criteria in the 2014 Balance Indicator Guidelines. In the tables 6.1.1-6 also the fish stocks on which segments out of balance rely. The fish stocks on which a fleet segment is reliant have beendetermined by ranking the landings of value from all stocks caught by that fleet segment in descending order in terms of landings value and listing those stocks that account for 75% of the total value of the landings by that fleet segment.

Unfortunately, was not possible to carry out a comparison between SHI and SAR indicator calculated by STECF and the ones presented in the MS fleet reports mainly due to time constraints. However, the EWG 18-14 stresses that such comparison would not be appropriate taking into account that the difference that would arise are due to different fleet segmentation utilized (e.g. Italy estimates the biological indicator by GSA) as well as the use of input data for the estimation of biological indicator updated with a different time schedule.

Table 6.1.1 List of flet segment by country in Area 27 that in 2016 were out of balance according to the SHI indicator. Note that the SHI has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final), using 40% of the annual value of landings that came from assessed stocks as threshold (% of coverage).

Country code	Fleet code	SHI	% of coverage	Major stock
BEL	BEL-AREA27-DTS-VL2440-NGI	1.14	52.9	European plaice-ple.27.420/assessed Norway lobster-nep.fu.6/assessed Norway lobster-nep.fu.8/assessed Norway lobster-nep.fu.5/no information Norway lobster-nep.fu.33/no information Turbot-tur.27.4/no information Common squids nei-27.7.d/no information Surmullet-mur.27.3a47d/no information Common sole-sol.27.7fg/assessed Common sole-sol.27.4/assessed Norway lobster-nep.fu.34/no information Tub gurnard-27.7.d/no information
BEL	BEL-AREA27-TBB-VL2440-NGI	1.19	69.19	European plaice-ple.27.420/assessed Common sole-sol.27.7d/assessed Common sole-sol.27.4/assessed Common sole-sol.27.7fg/assessed Common sole-sol.27.8ab/assessed Atlantic cod-cod.27.47d20/assessed Anglerfishes nei-mon.27.78abd/assessed Lemon sole-lem.27.3a47d/no information European plaice-ple.27.7d/assessed Common cuttlefish-27.7.d/no information Turbot-tur.27.4/no information Brill-bll.27.3a47de/no information Common sole-sol.27.7h-k/assessed
DEU	DEU-AREA27-DFN-VL1218-	1.14	95.78	Common sole-sol.27.4/assessed Atlantic cod-cod.27.47d20/assessed Atlantic herring-her.27.20-24/assessed
DEU	DEU-AREA27-DFN-VL2440-	1.13	41.32	Anglerfishes nei-anf.27.3a46/no information Anglerfishes nei-mon.27.78abd/assessed Deep-sea red crab-27.6.b/no information Anglerfishes nei-ank.27.78ab/assessed Common sole-sol.27.4/assessed
DEU	DEU-AREA27-DTS-VL1012-	1.72	71.16	Atlantic cod-cod.27.22-24/assessed Atlantic herring-her.27.20-24/assessed Common dab-dab.27.22-32/no information European plaice-ple.27.21-23/assessed
DEU	DEU-AREA27-DTS-VL1218-	1.94	72.75	Atlantic cod-cod.27.22-24/assessed European plaice-ple.27.21-23/assessed Common dab-dab.27.22-32/no information Atlantic herring-her.27.20-24/assessed
DEU	DEU-AREA27-DTS-VL1824-	1.37	60.01	European plaice-ple.27.420/assessed Atlantic cod-cod.27.22-24/assessed Norway lobster-nep.fu.6/assessed Norway lobster-nep.fu.8/assessed Norway lobster-nep.fu.5/no information Common shrimp-27.4.b/no information Turbot-tur.27.4/no information Norway lobster-nep.fu.33/no information
DEU	DEU-AREA27-DTS-VL2440-	1.14	84.81	Atlantic cod-cod.27.47d20/assessed Saithe(=Pollock)-pok.27.3a46/assessed European hake-hke.27.3a46-8abd/assessed European plaice-ple.27.420/assessed Haddock-had.27.46a20/assessed
DEU	DEU-AREA27-DTS-VL40XX-	1.13	84.51	Greenland halibut-ghl.27.561214/assessed Atlantic cod-cod.27.1-2/assessed Greenland halibut-21.1.c/no information Saithe(=Pollock)-pok.27.3a46/assessed
DEU	DEU-AREA27-PG-VL1012-	1.88	75.99	Atlantic herring-her.27.20-24/assessed Atlantic cod-cod.27.22-24/assessed European flounder-fle.27.2425/no information
DEU	DEU-AREA27-	1.04	78.13	Common sole-sol.27.4/assessed European plaice-ple.27.420/assessed

Country code	Fleet code	SHI	% of coverage	Major stock
	TBB-VL2440-			
DEU	DEU-AREA27-TM-VL40XX-	1.08	84.33	Atlantic mackerel-mac.27.nea/assessed Atlantic herring-her.27.3a47d/assessed Atlantic herring-her.27.1-24a514a/assessed Blue whiting(=Poutassou)-whb.27.1-91214/assessed European pilchard(=Sardine)-34.1.3/no information Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed
DNK	DNK-AREA27-DTS-VL1012-NGI	1.23	61.46	Norway lobster-nep.fu.3-4/assessed Atlantic cod-cod.27.22-24/assessed Atlantic cod-27.3.d.25/no information European plaice-ple.27.21-23/assessed European sprat-spr.27.4/no information
DNK	DNK-AREA27-DTS-VL2440-NGI	1.08	55.46	Atlantic cod-cod.27.47d20/assessed European plaice-ple.27.420/assessed Angler(=Monk)-anf.27.3a46/no information Northern prawn-27.3.a/no information European hake-hke.27.3a46-8abd/assessed Saithe(=Pollock)-pok.27.3a46/assessed European sprat-spr.27.4/no information Lemon sole-lem.27.3a47d/no information Atlantic cod-cod.27.21/no information Haddock-had.27.46a20/assessed
DNK	DNK-AREA27-PGP-VL1012-NGI	1.82	62.46	Atlantic cod-cod.27.22-24/assessed European plaice-ple.27.21-23/assessed Atlantic cod-cod.27.21/no information European plaice-ple.27.420/assessed Atlantic cod-cod.27.47d20/assessed European eel-ele.2737.nea/no information Common sole-sol.27.4/assessed Common sole-sol.27.20-24/assessed
DNK	DNK-AREA27-PGP-VL1218-NGI	1.17	67.86	European plaice-ple.27.420/assessed Atlantic cod-cod.27.47d20/assessed Turbot-tur.27.4/no information Common sole-sol.27.4/assessed European plaice-ple.27.21-23/assessed Atlantic cod-cod.27.22-24/assessed Angler(=Monk)-anf.27.3a46/no information
DNK	DNK-AREA27-PMP-VL0010-NGI	1.17	59.51	European plaice-ple.27.21-23/assessed Norway lobster-nep.fu.3-4/assessed Atlantic cod-cod.27.22-24/assessed Atlantic cod-cod.27.21/no information Lumpfish(=Lumpsucker)-27.3.a/no information European plaice-ple.27.420/assessed Common sole-sol.27.20-24/assessed European flat oyster-27.4.b/no information
DNK	DNK-AREA27-PMP-VL1012-NGI	1.08	62.24	European plaice-ple.27.21-23/assessed European plaice-ple.27.420/assessed Norway lobster-nep.fu.3-4/assessed Atlantic cod-cod.27.21/no information Atlantic cod-cod.27.22-24/assessed Atlantic cod-27.3.d.25/no information Lemon sole-lem.27.3a47d/no information
DNK	DNK-AREA27-PMP-VL1824-NGI	1.06	76.66	European plaice-ple.27.420/assessed Atlantic cod-cod.27.47d20/assessed European hake-hke.27.3a46-8abd/assessed Common sole-sol.27.4/assessed Turbot-tur.27.4/no information
ESP	ESP-AREA27-DFN-VL1218-	1.54	44.88	European hake-hke.27.8c9a/assessed Anglerfishes nei-mon.27.8c9a/assessed Atlantic mackerel-mac.27.nea/assessed Anglerfishes nei-ank.27.8c9a/assessed Common sole-sol.27.8c9a/no information Albacore-alb-na/assessed John dory-27.8.c/no information European seabass-bss.27.8c9a/no information Common octopus-27.9.a/no information Meagre-27.9.a/no information Spinous spider crab-27.8.c/no information Spinous spider crab-27.9.a/no information Pollack-pol.27.89a/no information Common cuttlefish-27.9.a/no information Surmullet-27.8.c/no information Finfishes nei-27.9.a/no information Seaweeds nei-27.8.c/no information Turbot-27.8.c/no information Common cuttlefish-27.8.c/no information Common octopus-27.8.c/no information John dory-27.9.a/no information Finfishes nei-27.8.c/no information
ESP	ESP-AREA27-DFN-VL1824-	1.64	69.94	European hake-hke.27.8c9a/assessed Albacore-alb-na/assessed Anglerfishes nei-mon.27.8c9a/assessed Anglerfishes nei-ank.27.8c9a/assessed Axillary seabream-27.8.c/no information Atlantic mackerel-mac.27.nea/assessed Blackbelly rosefish-27.8.c/no information Common cuttlefish-27.9.a/no information
ESP	ESP-AREA27-DFN-VL2440-	1.73	76.66	European hake-hke.27.8c9a/assessed Albacore-alb-na/assessed Anglerfishes nei-mon.27.8c9a/assessed Atlantic mackerel-mac.27.nea/assessed Anglerfishes nei-ank.27.8c9a/assessed Edible crab-27.8.c/no information
ESP	ESP-AREA27-DTS-VL2440-	1.26	77	Blue whiting(=Poutassou)-whb.27.1-91214/assessed European hake-hke.27.3a46-8abd/assessed Anglerfishes nei-mon.27.78abd/assessed Megrims nei-meg.27.7b-k8abd/assessed European hake-hke.27.8c9a/assessed Atlantic mackerel-mac.27.nea/assessed Anglerfishes nei-ank.27.78ab/assessed Jack and horse mackerels nei-hom.27.9a/assessed Megrims nei-ldb.27.8c9a/assessed Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed Anglerfishes nei-mon.27.8c9a/assessed Northern shortfin squid-27.8.c/no information
ESP	ESP-AREA27-HOK-VL1012-	1.67	40.87	Atlantic mackerel-mac.27.nea/assessed European seabass-bss.27.8c9a/no information European hake-hke.27.8c9a/assessed European conger-27.8.c/no information Albacore-alb-na/assessed Pollack-pol.27.89a/no information Seaweeds nei-27.8.b/no information Blackspot(=red) seabream-sbr.27.6-8/no information Greater forkbeard-gfb.27.nea/no information Red porgy-27.8.c/no information European hake-hke.27.3a46-8abd/assessed
ESP	ESP-AREA27-HOK-VL1218-	1.55	60.63	European hake-hke.27.8c9a/assessed Albacore-alb-na/assessed Atlantic mackerel-mac.27.nea/assessed Pollack-pol.27.89a/no information European conger-27.8.c/no information European seabass-bss.27.8c9a/no information Blackspot(=red) seabream-sbr.27.6-8/no information Red porgy-27.8.c/no information
ESP	ESP-AREA27-HOK-VL1824-	1.28	70.17	Albacore-alb-na/assessed European hake-hke.27.8c9a/assessed Atlantic mackerel-mac.27.nea/assessed Blackspot(=red) seabream-sbr.27.6-8/no information Albacore-27.10.a.2/no information Blackbelly rosefish-27.8.c/no information
ESP	ESP-AREA27-PGO-VL1824-	1.02	59.36	Swordfish-swo-na/assessed Bigeye tuna-bet-atl/assessed Blue shark-27.8.c/no information Swordfish-swo-med/assessed Blue shark-27.8.b/no information Blue

Country code	Fleet code	SHI	% of coverage	Major stock
				shark-27.9.b/no information Albacore-alb-na/assessed
ESP	ESP-AREA27-PMP-VL1824-	1.21	68.75	Albacore-alb-na/assessed European anchovy-ane.27.9a/no information Atlantic mackerel-mac.27.nea/assessed European hake-hke.27.8c9a/assessed Anglerfishes nei-mon.27.8c9a/assessed
ESP	ESP-AREA27-PS-VL1012-	1.02	49.86	Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed Jack and horse mackerels nei-hom.27.9a/assessed Chub mackerel-27.9.a/no information European pilchard(=Sardine)-pil.27.8c9a/assessed Chub mackerel-27.8.c/no information Common cuttlefish-27.9.a/no information European seabass-bss.27.8c9a/no information
ESP	ESP-AREA27-PS-VL2440-	2.06	51.23	European anchovy-ane.27.8/no information Albacore-alb-na/assessed European pilchard(=Sardine)-pil.27.8abd/assessed Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed Atlantic mackerel-mac.27.nea/assessed Chub mackerel-27.8.c/no information
EST	EST-AREA27-PG-VL1012-NGI	1.24	96.68	Atlantic herring-her.27.25-2932/assessed
EST	EST-AREA27-TM-VL1218-NGI	1.12	100	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed
EST	EST-AREA27-TM-VL1824-NGI	1.15	99.08	Atlantic herring-her.27.25-2932/assessed European sprat-spr.27.22-32/assessed
EST	EST-AREA27-TM-VL2440-NGI	1.12	99.32	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed
FIN	FIN-AREA27-PG-VL1012-	1.25	40.94	Atlantic herring-her.27.3031/assessed European perch-27.3.d.30/no information European smelt-27.3.d.30/no information Whitefishes nei-27.3.d.31/no information Atlantic herring-her.27.25-2932/assessed Atlantic cod-27.3.d.29/no information
FIN	FIN-AREA27-TM-VL1218-	1.25	91.2	Atlantic herring-her.27.25-2932/assessed Atlantic herring-her.27.3031/assessed
FIN	FIN-AREA27-TM-VL1824-	1.23	100	Atlantic herring-her.27.3031/assessed Atlantic herring-her.27.25-2932/assessed
FIN	FIN-AREA27-TM-VL2440-	1.21	99.97	Atlantic herring-her.27.3031/assessed
FRA	FRA-AREA27-DFN-VL1012-	1.09	50.12	Common sole-sol.27.8ab/assessed Common sole-sol.27.7d/assessed Monkfishes nei-mon.27.78abd/assessed Common sole-sol.27.4/assessed Spinous spider crab-27.7.e/no information European seabass-bss.27.8ab/no information Pollack-pol.27.89a/no information Monkfishes nei-ank.27.78ab/assessed Common cuttlefish-27.7.d/no information Gilthead seabream-27.8.a/no information Great Atlantic scallop-27.7.e/no information White seabream-27.8.b/no information European hake-hke.27.3a46-8abd/assessed Meagre-27.8.b/no information Turbot-27.7.d/no information European plaice-ple.27.7d/assessed European lobster-27.7.d/no information Turbot-27.7.e/no information Whiting-whg.27.89a/no information Edible crab-27.7.d/no information Black seabream-27.8.a/no information European seabass-bss.27.4bc7ad-h/assessed
FRA	FRA-AREA27-DFN-VL1218-	1.14	54.87	Common sole-sol.27.8ab/assessed Monkfishes nei-mon.27.78abd/assessed European seabass-bss.27.8ab/no information European hake-hke.27.3a46-8abd/assessed Spinous spider crab-27.7.e/no information Common sole-sol.27.7d/assessed Monkfishes nei-ank.27.78ab/assessed Edible crab-27.7.e/no information Turbot-27.7.h/no information Turbot-27.7.e/no information Common cuttlefish-27.8.b/no information Common sole-sol.27.4/assessed Pollack-pol.27.89a/no information
FRA	FRA-AREA27-DTS-VL1218-	1.01	62.14	Norway lobster-nep.fu.2324/assessed Monkfishes nei-mon.27.78abd/assessed Great Atlantic scallop-27.7.d/no information Common sole-sol.27.8ab/assessed European hake-hke.27.3a46-8abd/assessed Monkfishes nei-ank.27.78ab/assessed Megrim-meg.27.7b-k8abd/assessed Great Atlantic scallop-27.7.e/no information Common cuttlefish-27.8.b/no information Inshore squids nei-27.8.b/no information Common cuttlefish-27.8.a/no information John dory-27.8.a/no information
FRA	FRA-AREA27-DTS-VL1824-	1.11	57.91	Monkfishes nei-mon.27.78abd/assessed Monkfishes nei-ank.27.78ab/assessed Norway lobster-nep.fu.2324/assessed Inshore squids nei-27.7.d/no information Megrim-meg.27.7b-k8abd/assessed Whiting-whg.27.7b-ce-k/assessed European hake-hke.27.3a46-8abd/assessed Haddock-had.27.7b-k/assessed Common cuttlefish-27.8.a/no information Albacore-alb-na/assessed Atlantic cod-cod.27.7e-k/assessed Atlantic mackerel-mac.27.nea/assessed Whiting-whg.27.47d/assessed Inshore squids nei-27.8.a/no information John dory-27.8.a/no information Inshore squids nei-27.4.c/no information European seabass-bss.27.8ab/no information Common sole-sol.27.8ab/assessed Common cuttlefish-27.7.e/no information Common cuttlefish-27.7.d/no information European seabass-bss.27.4bc7ad-h/assessed Norway lobster-nep.fu.2021/assessed Smooth-hounds nei-sdv.27.nea/no information Surmullet-27.8.a/no information John dory-27.7.h/no information John dory-27.7.e/no information Cuckoo ray-27.7.h/no information Pollack-pol.27.67/no information Inshore squids nei-27.8.b/no information
FRA	FRA-AREA27-DTS-VL2440-	1.13	65.74	Monkfishes nei-mon.27.78abd/assessed Monkfishes nei-ank.27.78ab/assessed Megrims nei-meg.27.7b-k8abd/assessed European hake-hke.27.3a46-8abd/assessed Whiting-whg.27.7b-ce-k/assessed Monkfishes nei-anf.27.3a46/no information Haddock-had.27.7b-k/assessed Atlantic mackerel-mac.27.nea/assessed John dory-27.7.h/no information John dory-27.7.e/no

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				information Inshore squids nei-27.7.d/no information Atlantic cod-cod.27.7e-k/assessed Surmullet-mur.27.3a47d/no information Atlantic herring-her.27.3a47d/assessed Whiting-whg.27.47d/assessed Megrim-meg.27.7b-k8abd/assessed Pollack-pol.27.67/no information
FRA	FRA-AREA27-PGP-VL1218-	1.16	44.72	Common sole-sol.27.8ab/assessed Monkfishes nei-mon.27.78abd/assessed European seabass-bss.27.8ab/no information Turbot-27.8.a/no information Edible crab-27.8.a/no information Pollack-pol.27.89a/no information European lobster-27.8.b/no information Edible crab-27.8.b/no information Monkfishes nei-ank.27.78ab/assessed
FRA	FRA-AREA27-PS-VL1218-	5.39	48.15	European pilchard(=Sardine)-pil.27.8abd/assessed European pilchard(=Sardine)-27.7.e/no information European anchovy-ane.27.8/no information
FRA	FRA-AREA27-PS-VL1824-	3.56	48.86	European pilchard(=Sardine)-pil.27.8abd/assessed Atlantic bluefin tuna-bft-ea/assessed European pilchard(=Sardine)-27.7.e/no information Mediterranean horse mackerel-27.8.b/no information Chub mackerel-27.8.b/no information Atlantic horse mackerel-hom.27.2a4a5b6a7a-ce-k8/assessed
FRA	FRA-AREA27-TM-VL0010-	6.07	81.34	European pilchard(=Sardine)-pil.27.8abd/assessed
FRA	FRA-AREA27-TM-VL1218-	2.55	62.34	European hake-hke.27.3a46-8abd/assessed European pilchard(=Sardine)-pil.27.8abd/assessed Albacore-alb-na/assessed European seabass-bss.27.8ab/no information European anchovy-ane.27.8/no information Common cuttlefish-27.8.a/no information Black seabream-27.8.a/no information
FRA	FRA-AREA27-TM-VL1824-	1.59	71.71	Albacore-alb-na/assessed European hake-hke.27.3a46-8abd/assessed European pilchard(=Sardine)-pil.27.8abd/assessed European anchovy-ane.27.8/no information Atlantic mackerel-mac.27.nea/assessed European seabass-bss.27.8ab/no information
FRA	FRA-AREA27-TM-VL40XX-	1.12	98.88	Atlantic herring-her.27.3a47d/assessed Blue whiting(=Poutassou)-whb.27.1-91214/assessed Atlantic mackerel-mac.27.nea/assessed
GBR	GBR-AREA27-DFN-VL2440-NGI	1.09	47.09	Anglerfishes nei-anf.27.3a46/no information Anglerfishes nei-mon.27.78abd/assessed
GBR	GBR-AREA27-DTS-VL1012-NGI	1.07	50.86	Lemon sole-27.7.e/no information Cuttlefish, bobtail squids nei-27.7.e/no information Norway lobster-nep.fu.13/assessed Norway lobster-nep.fu.15/assessed Norway lobster-nep.fu.6/assessed Norway lobster-nep.fu.8/assessed Norway lobster-nep.fu.12/assessed Norway lobster-nep.fu.11/assessed Norway lobster-nep.fu.5/no information Anglerfishes nei-mon.27.78abd/assessed Common squids nei-27.7.e/no information Norway lobster-nep.fu.33/no information Whiting-whg.27.7b-ce-k/assessed Haddock-had.27.7b-k/assessed Edible crab-27.7.a/no information European plaice-ple.27.7e/assessed John dory-27.7.e/no information
GBR	GBR-AREA27-DTS-VL1824-NGI	1.01	68.79	Anglerfishes nei-anf.27.3a46/no information Atlantic cod-cod.27.47d20/assessed Norway lobster-nep.fu.7/assessed Haddock-had.27.46a20/assessed Norway lobster-nep.fu.15/assessed Norway lobster-nep.fu.13/assessed Norway lobster-nep.fu.12/assessed Whiting-whg.27.47d/assessed Norway lobster-nep.fu.11/assessed Common squids nei-27.4.a/no information Megrims nei-lez.27.4a6a/assessed Norway lobster-nep.fu.6/assessed Norway lobster-nep.fu.8/assessed Norway lobster-nep.fu.5/no information
GBR	GBR-AREA27-DTS-VL2440-NGI	1.27	76.47	Haddock-had.27.46a20/assessed Atlantic cod-cod.27.47d20/assessed Anglerfishes nei-anf.27.3a46/no information European hake-hke.27.3a46-8abd/assessed Saithe(=Pollock)-pok.27.3a46/assessed Whiting-whg.27.47d/assessed Megrims nei-meg.27.7b-k8abd/assessed Anglerfishes nei-mon.27.78abd/assessed European plaice-ple.27.420/assessed
GBR	GBR-AREA27-HOK-VL0010-NGI	1.05	43.19	European seabass-bss.27.4bc7ad-h/assessed Solen razor clams nei-27.7.a/no information Atlantic mackerel-mac.27.nea/assessed Great Atlantic scallop-27.6.a/no information Solen razor clams nei-27.6.a/no information Pollack-pol.27.67/no information
GBR	GBR-AREA27-PGP-VL0010-NGI	1.02	41.17	Cuttlefish, bobtail squids nei-27.7.d/no information European seabass-bss.27.4bc7ad-h/assessed Common sole-sol.27.7d/assessed Cuttlefish, bobtail squids nei-27.7.e/no information Great Atlantic scallop-27.4.a/no information Atlantic mackerel-mac.27.nea/assessed Atlantic cod-cod.27.47d20/assessed European lobster-27.4.a/no information Pollack-pol.27.67/no information Common sole-sol.27.4/assessed European plaice-ple.27.7d/assessed Common sole-sol.27.7e/assessed European lobster-27.4.b/no information
GBR	GBR-AREA27-PMP-VL0010-NGI	1.06	43.41	Common sole-sol.27.7d/assessed Manila clam-27.7.d/no information Atlantic mackerel-mac.27.nea/assessed European plaice-ple.27.7d/assessed Clams, etc. nei-27.4.c/no information Cuttlefish, bobtail squids nei-27.7.e/no information Thornback ray-rjc.27.3a47d/no information Mullets nei-27.7.d/no information
GBR	GBR-AREA27-TBB-VL1824-NGI	1.22	53.88	Common sole-sol.27.7e/assessed Cuttlefish, bobtail squids nei-27.7.e/no information Anglerfishes nei-mon.27.78abd/assessed European plaice-ple.27.7e/assessed Common sole-sol.27.7fg/assessed Turbot-27.7.e/no information Anglerfishes nei-ank.27.78ab/assessed
GBR	GBR-AREA27-TBB-VL2440-NGI	1.26	57.85	Cuttlefish, bobtail squids nei-27.7.e/no information Anglerfishes nei-mon.27.78abd/assessed Common sole-sol.27.7e/assessed Megrims nei-meg.27.7b-k8abd/assessed Anglerfishes nei-ank.27.78ab/assessed Great Atlantic scallop-27.7.e/no information European plaice-ple.27.420/assessed Turbot-27.7.e/no information European plaice-ple.27.7e/assessed Common sole-sol.27.7fg/assessed

Country code	Fleet code	SHI	% of coverage	Major stock
GBR	GBR-AREA27-TM-VL2440-NGI	1.22	100	Atlantic mackerel-mac.27.nea/assessed Atlantic herring-her.27.1-24a514a/assessed
GBR	GBR-AREA27-TM-VL40XX-NGI	1.34	98.86	Atlantic mackerel-mac.27.nea/assessed Atlantic herring-her.27.1-24a514a/assessed
IRL	IRL-AREA27-DTS-VL1012-	1.18	78.45	Norway lobster-nep.fu.16/assessed Norway lobster-nep.fu.22/assessed Norway lobster-nep.fu.19/assessed Atlantic herring-her.27.irls/assessed Norway lobster-nep.fu.2021/assessed Anglerfishes nei-mon.27.78abd/assessed Norway lobster-nep.fu.15/assessed Megrims nei-meg.27.7b-k8abd/assessed European sprat-27.7.g/no information Whiting-whg.27.7b-ce-k/assessed Haddock-had.27.7b-k/assessed Atlantic herring-her.27.nirs/assessed Anglerfishes nei-ank.27.78ab/assessed
IRL	IRL-AREA27-DTS-VL1218-	1.13	78.94	Norway lobster-nep.fu.16/assessed Norway lobster-nep.fu.22/assessed Norway lobster-nep.fu.15/assessed Norway lobster-nep.fu.2021/assessed Whiting-whg.27.7b-ce-k/assessed Anglerfishes nei-mon.27.78abd/assessed Norway lobster-nep.fu.19/assessed Megrims nei-lez.27.4a6a/assessed European hake-hke.27.3a46-8abd/assessed Haddock-had.27.7b-k/assessed Anglerfishes nei-27.7.a/no information Norway lobster-nep.fu.17/assessed Common sole-sol.27.7h-k/assessed Atlantic herring-her.27.irls/assessed Megrims nei-meg.27.7b-k8abd/assessed Anglerfishes nei-ank.27.78ab/assessed European sprat-27.7.a/no information
IRL	IRL-AREA27-DTS-VL1824-	1.11	90.48	Norway lobster-nep.fu.22/assessed Norway lobster-nep.fu.2021/assessed Norway lobster-nep.fu.15/assessed Whiting-whg.27.7b-ce-k/assessed Anglerfishes nei-mon.27.78abd/assessed Norway lobster-nep.fu.16/assessed Norway lobster-nep.fu.19/assessed Megrims nei-meg.27.7b-k8abd/assessed European hake-hke.27.3a46-8abd/assessed Atlantic mackerel-mac.27.nea/assessed Atlantic herring-her.27.irls/assessed Anglerfishes nei-ank.27.78ab/assessed
IRL	IRL-AREA27-DTS-VL2440-	1.05	86.02	Norway lobster-nep.fu.15/assessed Norway lobster-nep.fu.2021/assessed Norway lobster-nep.fu.22/assessed Whiting-whg.27.7b-ce-k/assessed European hake-hke.27.3a46-8abd/assessed Norway lobster-nep.fu.16/assessed Anglerfishes nei-mon.27.78abd/assessed Norway lobster-nep.fu.19/assessed Megrims nei-meg.27.7b-k8abd/assessed Atlantic mackerel-mac.27.nea/assessed Anglerfishes nei-anf.27.3a46/no information Haddock-had.27.46a20/assessed Norway lobster-nep.fu.17/assessed Atlantic herring-her.27.irls/assessed
IRL	IRL-AREA27-HOK-VL1012-	1.53	69.08	Atlantic mackerel-mac.27.nea/assessed Pollack-pol.27.67/no information
IRL	IRL-AREA27-PMP-VL1218-	1.01	50.51	Pollack-pol.27.67/no information Atlantic herring-her.27.irls/assessed Atlantic herring-her.27.6a7bc/assessed European hake-hke.27.3a46-8abd/assessed Brill-27.6.a/no information Atlantic herring-her.27.nirs/assessed
IRL	IRL-AREA27-TBB-VL2440-	1.09	72.15	Megrims nei-meg.27.7b-k8abd/assessed Anglerfishes nei-mon.27.78abd/assessed Turbot-27.7.g/no information Anglerfishes nei-ank.27.78ab/assessed Lemon sole-27.7.g/no information Haddock-had.27.7b-k/assessed European plaice-ple.27.7a/assessed European hake-hke.27.3a46-8abd/assessed
IRL	IRL-AREA27-TM-VL1012-	1.36	93.84	Atlantic herring-her.27.irls/assessed Atlantic herring-her.27.nirs/assessed
IRL	IRL-AREA27-TM-VL1218-	1.46	64.11	European sprat-27.6.a/no information Atlantic herring-her.27.irls/assessed Megrims nei-meg.27.7b-k8abd/assessed Common sole-sol.27.7h-k/assessed Anglerfishes nei-mon.27.78abd/assessed Norway lobster-nep.fu.16/assessed Atlantic herring-her.27.nirs/assessed Atlantic herring-her.27.6a7bc/assessed
IRL	IRL-AREA27-TM-VL2440-	1.12	98.07	Atlantic mackerel-mac.27.nea/assessed Albacore-alb-na/assessed Atlantic herring-her.27.irls/assessed Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed
IRL	IRL-AREA27-TM-VL40XX-	1.33	99.97	Atlantic mackerel-mac.27.nea/assessed Jack and horse mackerels nei-hom.27.2a4a5b6a7a-ce-k8/assessed
LTU	LTU-AREA27-DTS-VL1824-	1.08	67.32	European sprat-spr.27.22-32/assessed Atlantic cod-27.3.d.26/no information
LTU	LTU-AREA27-TM-VL1824-	1.08	77.05	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed Atlantic cod-27.3.d.26/no information
LTU	LTU-AREA27-TM-VL2440-	1.08	99.57	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed
LTU	LTU-AREA27-TM-VL40XX-	1.05	100	European sprat-spr.27.22-32/assessed
LVA	LVA-AREA27-PGP-VL0010-NGI	1.1	60.07	Atlantic herring-her.27.28/assessed Round goby-27.3.d.26/no information Atlantic cod-27.3.d.26/no information European flounder-27.3.d.28.1/no information Eelpout-27.3.d.28.1/no information
LVA	LVA-AREA27-TM-VL1218-NGI	1.09	90.38	Atlantic herring-her.27.28/assessed
LVA	LVA-AREA27-TM-VL2440-NGI	1.06	80.92	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.28/assessed Atlantic herring-her.27.25-2932/assessed
NLD	NLD-AREA27-DTS-VL1824-NGI	1.12	48.71	European plaice-ple.27.420/assessed Common shrimp-27.4.c/no information Norway lobster-nep.fu.6/assessed Norway lobster-nep.fu.8/assessed Norway lobster-nep.fu.5/no information Norway lobster-nep.fu.33/no information
NLD	NLD-AREA27-DTS-VL2440-NGI	1.17	40.48	Surmullet-mur.27.3a47d/no information European plaice-ple.27.420/assessed Atlantic cod-cod.27.47d20/assessed Atlantic mackerel-mac.27.nea/assessed European squid-27.7.d/no information Tub gurnard-27.4.b/no information Tub gurnard-27.7.d/no information Whiting-whg.27.47d/assessed Turbot-tur.27.4/no

Country code	Fleet code	SHI	% of coverage	Major stock
				information Norway lobster-nep.fu.6/assessed Tub gurnard-27.4.c/no information Norway lobster-nep.fu.8/assessed
NLD	NLD-AREA27-PG-VL1012-NGI	1.03	90.8	Common sole-sol.27.4/assessed
NLD	NLD-AREA27-TBB-VL2440-NGI	1.03	60.76	Common sole-sol.27.4/assessed European plaice-ple.27.420/assessed Common shrimp-27.4.c/no information Common shrimp-27.4.b/no information
NLD	NLD-AREA27-TBB-VL40XX-NGI	1.03	82.07	Common sole-sol.27.4/assessed European plaice-ple.27.420/assessed
NLD	NLD-AREA27-TM-VL40XX-NGI	1.07	81.72	Atlantic mackerel-mac.27.nea/assessed Atlantic herring-her.27.3a47d/assessed Blue whiting(=Poutassou)-whb.27.1-91214/assessed Atlantic herring-her.27.1-24a514a/assessed Atlantic horse mackerel-hom.27.2a4a5b6a7a-ce-k8/assessed
POL	POL-AREA27-TM-VL1824-	1.12	73.68	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed Atlantic cod-27.3.d.26/no information
POL	POL-AREA27-TM-VL2440-	1.13	92.51	European sprat-spr.27.22-32/assessed Atlantic herring-her.27.25-2932/assessed
PRT	PRT-AREA27-DFN-VL1824-NGI	1.77	40.75	European hake-hke.27.8c9a/assessed John dory-27.9.a/no information Common octopus-27.9.a/no information Common sole-sol.27.8c9a/no information Angler(=Monk)-ank.27.8c9a/assessed Atlantic horse mackerel-hom.27.9a/assessed Blackbellied angler-ank.27.8c9a/assessed Thornback ray-27.9.a/no information Common cuttlefish-27.9.a/no information
PRT	PRT-AREA27-DTS-VL2440-NGI	1.12	65.13	Atlantic horse mackerel-hom.27.9a/assessed Atlantic mackerel-mac.27.nea/assessed Blue whiting(=Poutassou)-whb.27.1-91214/assessed Deep-water rose shrimp-27.9.a/no information European hake-hke.27.8c9a/assessed Common octopus-27.9.a/no information Norway lobster-nep.fu.2829/assessed European squid-27.9.a/no information Atlantic horse mackerel-hom.27.2a4a5b6a7a-ce-k8/assessed John dory-27.9.a/no information
PRT	PRT-AREA27-PS-VL1012-NGI	1.4	44.62	European pilchard(=Sardine)-pil.27.8c9a/assessed European anchovy-ane.27.9a/no information Atlantic horse mackerel-hom.27.9a/assessed Chub mackerel-27.9.a/no information
PRT	PRT-AREA27-PS-VL1218-NGI	1.4	51.25	European pilchard(=Sardine)-pil.27.8c9a/assessed Chub mackerel-27.9.a/no information Atlantic horse mackerel-hom.27.9a/assessed Atlantic bonito-27.9.a/no information
PRT	PRT-AREA27-PS-VL1824-NGI	1.58	61.01	European pilchard(=Sardine)-pil.27.8c9a/assessed European anchovy-ane.27.9a/no information
PRT	PRT-AREA27-PS-VL2440-NGI	1.58	56.62	European pilchard(=Sardine)-pil.27.8c9a/assessed European anchovy-ane.27.9a/no information Chub mackerel-27.9.a/no information
SWE	SWE-AREA27-DFN-VL1012-NGI	2.12	50.66	Atlantic cod-cod.27.22-24/assessed Vendace-27.3.d.31/no information Atlantic herring-her.27.3031/assessed Atlantic herring-her.27.20-24/assessed Atlantic cod-27.3.d.25/no information Atlantic mackerel-27.3.a/no information
SWE	SWE-AREA27-DFN-VL1218-NGI	2.49	48.78	Atlantic cod-cod.27.22-24/assessed Vendace-27.3.d.31/no information Atlantic cod-27.3.d.29/no information Common sole-sol.27.20-24/assessed
SWE	SWE-AREA27-DTS-VL2440-NGI	1.14	41.75	Northern prawn-27.3.a/no information Saithe(=Pollock)-pok.27.3a46/assessed Atlantic herring-her.27.3031/assessed Northern prawn-27.4.a/no information Atlantic cod-cod.27.47d20/assessed
SWE	SWE-AREA27-PS-VL1012-NGI	1.27	96.17	Atlantic herring-her.27.25-2932/assessed
SWE	SWE-AREA27-PS-VL1218-NGI	1.27	99.21	Atlantic herring-her.27.25-2932/assessed
SWE	SWE-AREA27-TM-VL1012-NGI	1.25	100	Atlantic herring-her.27.25-2932/assessed
SWE	SWE-AREA27-TM-VL1218-NGI	1.3	98.87	Atlantic herring-her.27.3031/assessed
SWE	SWE-AREA27-TM-VL1824-NGI	1.21	99.94	Atlantic herring-her.27.25-2932/assessed
SWE	SWE-AREA27-TM-VL2440-NGI	1.09	87.28	Atlantic herring-her.27.25-2932/assessed Atlantic herring-her.27.3a47d/assessed European sprat-spr.27.22-32/assessed Atlantic herring-her.27.3031/assessed
SWE	SWE-AREA27-TM-VL40XX-NGI	1.04	91.22	Atlantic herring-her.27.25-2932/assessed European sprat-spr.27.22-32/assessed Atlantic herring-her.27.3a47d/assessed Atlantic herring-her.27.1-24a514a/assessed

Table 6.1.2 List of flet segment by country in Area 37 that in 2016 were out of balance according to the SHI indicator. Note that the SHI has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final), using 40% of the annual value of landings that came from assessed stocks as threshold (% of coverage).

Country code	Fleet code	SHI	% of coverage	Major stock
BGR	BGR-AREA37-DFN-VL0006-NGI	2.47	100	Sea snails-rpw-gsa29/assessed Red mullet-mut-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-DFN-VL0612-NGI	2.74	100	Sea snails-rpw-gsa29/assessed Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed Red mullet-mut-gsa29/assessed
BGR	BGR-AREA37-DFN-VL1218-NGI	2.44	100	Red mullet-mut-gsa29/assessed Sea snails-rpw-gsa29/assessed Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed
BGR	BGR-AREA37-DFN-VL1824-NGI	3.27	100	Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-FPO-VL0006-NGI	1.57	100	Red mullet-mut-gsa29/assessed
BGR	BGR-AREA37-FPO-VL0612-NGI	1.95	100	European anchovy-ane-gsa29/assessed European sprat-spr-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-HOK-VL0006-NGI	8.22	100	Picked dogfish-dgs-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-HOK-VL0612-NGI	7.36	100	Picked dogfish-dgs-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-HOK-VL1218-NGI	11.63	100	Picked dogfish-dgs-gsa29/assessed
BGR	BGR-AREA37-PGP-VL0006-NGI	2.14	100	Sea snails-rpw-gsa29/assessed Red mullet-mut-gsa29/assessed European sprat-spr-gsa29/assessed
BGR	BGR-AREA37-PGP-VL0612-NGI	3.09	100	Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-PGP-VL1218-NGI	4.36	100	Sea snails-rpw-gsa29/assessed Picked dogfish-dgs-gsa29/assessed
BGR	BGR-AREA37-PMP-VL0006-NGI	2.27	100	Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-PMP-VL0612-NGI	2.3	100	Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-PMP-VL1218-NGI	3.18	100	Sea snails-rpw-gsa29/assessed Red mullet-mut-gsa29/assessed
BGR	BGR-AREA37-PMP-VL1824-NGI	3.03	100	Sea snails-rpw-gsa29/assessed Red mullet-mut-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-PS-VL0006-NGI	1.86	100	European sprat-spr-gsa29/assessed Red mullet-mut-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-PS-VL0612-NGI	2.61	100	Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed Red mullet-mut-gsa29/assessed
BGR	BGR-AREA37-TBB-VL0612-NGI	2.34	100	Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-TBB-VL1218-NGI	2.36	100	Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-TBB-VL1824-NGI	2.29	100	Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-TM-VL0612-NGI	2.82	100	Red mullet-mut-gsa29/assessed Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed
BGR	BGR-AREA37-TM-VL1218-NGI	2.38	100	Red mullet-mut-gsa29/assessed Sea snails-rpw-gsa29/assessed
BGR	BGR-AREA37-TM-VL1824-NGI	1.97	100	European sprat-spr-gsa29/assessed Red mullet-mut-gsa29/assessed Sea snails-rpw-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
BGR	BGR-AREA37-TM-VL2440-NGI	1.43	100	European sprat-spr-gsa29/assessed
ESP	ESP-AREA37-DTS-VL1824-	3.65	51.54	Blue and red shrimp-ara-gsa06/assessed Norway lobster-nep-gsa06/assessed Deep-water rose shrimp-dps-gsa06/assessed Blue and red shrimp-ara-gsa01/assessed European hake-hke-gsa01_05_06_07/assessed Blue and red shrimp-ara-gsa05/assessed European hake-hke-gsa06/assessed Red mullet-mut-gsa06/assessed Angler(=Monk)-mon-gsa01_05_06_07/assessed Common octopus-sa 6/no information Gilthead seabream-sa 6/no information Common cuttlefish-sa 6/no information Surmullets(=Red mullets) nei-sa 6/no information Deep-water rose shrimp-dps-gsa01/assessed Horned octopus-sa 6/no

Country code	Fleet code	SHI	% of coverage	Major stock
				information Spottail mantis squillid-sa 6/no information Common pandora-sa 6/no information Broadtail shortfin squid-sa 6/no information European squid-sa 6/no information Norway lobster-sa 1/no information Blue and red shrimp-sa 7/no information Spotted flounder-sa 6/no information Common squids nei-sa 6/no information Anglerfishes nei-ank-gsa06/assessed Blue whiting(=Poutassou)-whb-gsa06/assessed Common squids nei-sa 5/no information Blackspot(=red) seabream-sa 6/no information Finfishes nei-sa 6/no information European squid-sa 5/no information Common octopus-sa 1/no information Greater forkbeard-sa 6/no information Giant red shrimp-sa 6/no information Common octopus-sa 5/no information European flying squid-sa 6/no information Pandalid shrimps nei-sa 6/no information John dory-sa 5/no information Caramote prawn-sa 6/no information Red mullet-mut-gsa01/assessed Gurnards, searobins nei-sa 6/no information
ESP	ESP-AREA37-DTS-VL2440-	3.57	63.81	Blue and red shrimp-ara-gsa06/assessed European hake-hke-gsa01_05_06_07/assessed Norway lobster-nep-gsa06/assessed European hake-hke-gsa06/assessed Blue and red shrimp-sa 7/no information Blue and red shrimp-ara-gsa01/assessed Deep-water rose shrimp-dps-gsa06/assessed Red mullet-mut-gsa06/assessed Angler(=Monk)-mon-gsa01_05_06_07/assessed Blue and red shrimp-ara-gsa05/assessed Common octopus-sa 6/no information Gilthead seabream-sa 6/no information Blue whiting(=Poutassou)-whb-gsa06/assessed Broadtail shortfin squid-sa 6/no information Common pandora-sa 6/no information Horned octopus-sa 6/no information Greater forkbeard-sa 6/no information European squid-sa 6/no information Norway lobster-sa 7/no information
ESP	ESP-AREA37-PGO-VL0612-	1.64	88.27	Swordfish-swo-med/assessed
ESP	ESP-AREA37-PGO-VL1218-	1.56	97.32	Swordfish-swo-med/assessed
ESP	ESP-AREA37-PGO-VL1824-	1.67	99.16	Swordfish-swo-med/assessed
ESP	ESP-AREA37-PGO-VL2440-	1.23	90.4	Swordfish-swo-med/assessed Swordfish-swo-na/assessed Atlantic bluefin tuna-bft-ea/assessed
ESP	ESP-AREA37-PMP-VL1824-	2.37	48.95	European anchovy-sa 1/no information European anchovy-ane-gsa06/assessed European anchovy-ane-gsa06-GFCM/assessed Gilthead seabream-sa 6/no information European pilchard(=Sardine)-pil-gsa06/assessed European pilchard(=Sardine)-pil-gsa06-GFCM/assessed European hake-hke-gsa01_05_06_07/assessed European hake-hke-gsa06/assessed Atlantic mackerel-sa 1/no information Spottail mantis squillid-sa 6/no information Deep-water rose shrimp-dps-gsa06/assessed Broadtail shortfin squid-sa 6/no information
ESP	ESP-AREA37-PMP-VL2440-	3.39	75.59	European anchovy-ane-gsa06/assessed European anchovy-ane-gsa06-GFCM/assessed European hake-hke-gsa01_05_06_07/assessed European hake-hke-gsa06/assessed European pilchard(=Sardine)-pil-gsa06/assessed European pilchard(=Sardine)-pil-gsa06-GFCM/assessed Surmullets(=Red mullets) nei-sa 6/no information Norway lobster-nep-gsa06/assessed Atlantic bluefin tuna-bft-ea/assessed Blue and red shrimp-ara-gsa06/assessed Red mullet-mut-gsa06/assessed Blue whiting(=Poutassou)-whb-gsa06/assessed
ESP	ESP-AREA37-PS-VL1218-	1.6	65.06	European anchovy-ane-gsa06/assessed European anchovy-ane-gsa06-GFCM/assessed European anchovy-sa 1/no information European pilchard(=Sardine)-pil-gsa06/assessed European pilchard(=Sardine)-pil-gsa06-GFCM/assessed European pilchard(=Sardine)-pil-gsa01/assessed European pilchard(=Sardine)-pil-gsa01-03/assessed Atlantic mackerel-sa 6/no information
ESP	ESP-AREA37-PS-VL1824-	1.52	68.5	European anchovy-ane-gsa06/assessed European anchovy-ane-gsa06-GFCM/assessed European anchovy-sa 1/no information European pilchard(=Sardine)-pil-gsa06-GFCM/assessed European pilchard(=Sardine)-pil-gsa06/assessed European pilchard(=Sardine)-pil-gsa01/assessed European pilchard(=Sardine)-pil-gsa01-03/assessed
FRA	FRA-AREA37-DFN-VL0006-	2.92	47.56	Gilthead seabream-sbg-gsa07/assessed European seabass-bss-gsa07/assessed European eel-sa 7/no information Stony sea urchin-sa 7/no information Mugil spp-sa 7/no information Blackspot(=red) seabream-sa 7/no information
FRA	FRA-AREA37-DFN-VL1218-	4.71	54.92	Gilthead seabream-sbg-gsa07/assessed Common sole-sol-gsa07/assessed Monkfishes nei-mon-gsa01_05_06_07/assessed Common spiny lobster-sa 7/no information Atlantic mackerel-sa 7/no information Pink spiny lobster-sa 7/no information Purple dye murex-sa 7/no information European hake-hke-gsa01_05_06_07/assessed European hake-hke-gsa07/assessed
FRA	FRA-AREA37-HOK-VL0006-	3.46	75.35	European seabass-bss-gsa07/assessed Gilthead seabream-sbg-gsa07/assessed
FRA	FRA-AREA37-HOK-VL0612-	1.86	72.38	Swordfish-swo-med/assessed Atlantic bluefin tuna-bft-ea/assessed Blackspot(=red) seabream-sa 7/no information Gilthead seabream-sbg-gsa07/assessed Greater amberjack-sa 8/no information
FRA	FRA-AREA37-PGP-VL0006-	3.2	52.24	European eel-sa 7/no information Gilthead seabream-sbg-gsa07/assessed European seabass-bss-gsa07/assessed
FRA	FRA-AREA37-PGP-VL1218-	1.89	62.44	Atlantic bluefin tuna-bft-ea/assessed Scorpionfishes, rockfishes nei-sa 7/no information Common octopus-sa 7/no information Common sole-sol-gsa07/assessed Monkfishes nei-mon-gsa01_05_06_07/assessed
FRA	FRA-AREA37-PMP-VL0612-	1.99	46.25	Swordfish-swo-med/assessed Gilthead seabream-sbg-gsa07/assessed Blackspot(=red) seabream-sa 8/no information Greater amberjack-sa 8/no information Common octopus-sa 7/no information Atlantic bluefin tuna-bft-

Country code	Fleet code	SHI	% of coverage	Major stock
				ea/assessed European pilchard(=Sardine)-sa 7/no information Stony sea urchin-sa 7/no information Salema-sa 7/no information Common dentex-sa 8/no information Common spiny lobster-sa 7/no information Purple dye murex-sa 7/no information Blackspot(=red) seabream-sa 7/no information Axillary seabream-sa 7/no information European pilchard(=Sardine)-sa 8/no information
GRC	GRC-AREA37-HOK-VL1218-NGI	1.25	90.79	Swordfish-swo-med/assessed Albacore-alb-med/assessed European hake-hke-gsa22/assessed
GRC	GRC-AREA37-PS-VL1218-NGI	1.03	41.32	European pilchard(=Sardine)-pil-gsa22_23/assessed European anchovy-ane-gsa22_23/assessed Bogue-sa 22/no information Chub mackerel-sa 22/no information Greater amberjack-sa 22/no information Atlantic bonito-sa 22/no information Round sardinella-sa 22/no information Jack and horse mackerels nei-sa 22/no information Salema-sa 22/no information Greater amberjack-sa 20/no information Saddled seabream-sa 22/no information
GRC	GRC-AREA37-PS-VL1824-NGI	1.02	69.17	European anchovy-ane-gsa22_23/assessed European pilchard(=Sardine)-pil-gsa22_23/assessed Chub mackerel-sa 22/no information Bogue-sa 22/no information
GRC	GRC-AREA37-PS-VL2440-NGI	1.01	76.15	European anchovy-ane-gsa22_23/assessed European pilchard(=Sardine)-pil-gsa22_23/assessed
HRV	HRV-AREA37-DFN-VL1218-NGI	4.61	45.08	Common sole-sol-gsa17/assessed Turbot-sa 17/no information
HRV	HRV-AREA37-DTS-VL0612-NGI	1.32	47.95	Norway lobster-nep-gsa17_18/assessed European hake-hke-gsa17_18/assessed Horned and musky octopuses-sa 17/no information European squid-sa 17/no information Red mullet-mut-gsa17/assessed Red mullet-mut-gsa17_18/assessed Common octopus-sa 17/no information John dory-sa 17/no information European flat oyster-sa 17/no information Monkfishes nei-sa 17/no information Picarel-sa 17/no information
HRV	HRV-AREA37-DTS-VL1218-NGI	1.27	52.38	European hake-hke-gsa17_18/assessed European squid-sa 17/no information Norway lobster-nep-gsa17_18/assessed Red mullet-mut-gsa17_18/assessed Red mullet-mut-gsa17/assessed Horned and musky octopuses-sa 17/no information John dory-sa 17/no information Deep-water rose shrimp-dps-gsa17_18/assessed Deep-water rose shrimp-dps-gsa17_18_19/assessed Common octopus-sa 17/no information
HRV	HRV-AREA37-DTS-VL1824-NGI	1.28	72.71	Norway lobster-nep-gsa17_18/assessed European hake-hke-gsa17_18/assessed Deep-water rose shrimp-dps-gsa17_18_19/assessed Deep-water rose shrimp-dps-gsa17_18/assessed John dory-sa 17/no information Red mullet-mut-gsa17/assessed Red mullet-mut-gsa17_18/assessed
HRV	HRV-AREA37-DTS-VL2440-NGI	1.31	75.63	Norway lobster-nep-gsa17_18/assessed European hake-hke-gsa17_18/assessed Deep-water rose shrimp-dps-gsa17_18/assessed Deep-water rose shrimp-dps-gsa17_18_19/assessed Monkfishes nei-sa 17/no information Various squids nei-sa 17/no information
HRV	HRV-AREA37-FPO-VL0612-NGI	1.32	50.92	Norway lobster-nep-gsa17_18/assessed Common octopus-sa 17/no information
HRV	HRV-AREA37-PS-VL1218-NGI	2.76	87.8	European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed European anchovy-ane-gsa17_18/assessed
HRV	HRV-AREA37-PS-VL1824-NGI	2.77	94.67	European pilchard(=Sardine)-pil-gsa17_18/assessed European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European anchovy-ane-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed
HRV	HRV-AREA37-PS-VL2440-NGI	2.77	95.21	European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed European anchovy-ane-gsa17_18/assessed
ITA	ITA-AREA37-DTS-VL0612-NGI	1.47	51.83	Spottail mantis squillid-mts-gsa17_18/assessed Spottail mantis squillid-mts-gsa17/assessed European hake-hke-gsa17_18/assessed Common cuttlefish-sa 18/no information Red mullet-mut-gsa17_18/assessed Common cuttlefish-ctc-gsa17/assessed Caramote prawn-sa 17/no information Surmullet-sa 16/no information Red mullet-mut-gsa18/assessed Horned octopus-sa 18/no information Changeable nassa-sa 17/no information Caramote prawn-sa 9/no information European squid-sa 18/no information European hake-hke-gsa12_13_14_15_16/assessed Common cuttlefish-sa 9/no information Common sole-sol-gsa17/assessed Musky octopus-sa 16/no information Red mullet-mut-gsa17/assessed Silversides(=Sand smelts) nei-sa 17/no information Musky octopus-sa 17/no information Swordfish-swo-med/assessed Common octopus-sa 16/no information
ITA	ITA-AREA37-DTS-VL1218-NGI	1.69	53.49	Giant red shrimp-ars-gsa18_19/assessed European hake-hke-gsa17_18/assessed Spottail mantis squillid-mts-gsa17_18/assessed Norway lobster-nep-gsa17_18/assessed Common cuttlefish-ctc-gsa17/assessed Red mullet-mut-gsa17_18/assessed Spottail mantis squillid-mts-gsa17/assessed Deep-water rose shrimp-dps-gsa12_13_14_15_16/assessed Common cuttlefish-sa 18/no information Red mullet-mut-gsa18/assessed Deep-water rose shrimp-dps-gsa17_18_19/assessed Caramote prawn-sa 18/no information Horned octopus-sa 18/no information Deep-water rose shrimp-dps-gsa09_10_11/assessed Red mullet-mut-gsa09/assessed European hake-hke-gsa12_13_14_15_16/assessed Norway lobster-nep-gsa09/assessed Caramote prawn-sa 17/no information Common sole-sa 18/no information European hake-hke-gsa09_10_11/assessed European squid-sa 17/no information Horned octopus-sa 9/no information European squid-sa 18/no information Blue and red

Country code	Fleet code	SHI	% of coverage	Major stock
				shrimp-sa 19/no information Norway lobster-sa 19/no information Surmullet-sa 16/no information European hake-hke-gsa19/assessed Deep-water rose shrimp-dps-gsa19/assessed Musky octopus-sa 17/no information Spottail mantis squillid-mts-gsa18/assessed Deep-water rose shrimp-dps-gsa09/assessed Musky octopus-sa 18/no information Deep-water rose shrimp-dps-gsa17_18/assessed Common sole-sol-gsa17/assessed Musky octopus-sa 16/no information Alloteuthis squids nei-sa 17/no information Deep-water rose shrimp-dps-gsa10/assessed Giant red shrimp-ars-gsa10/assessed Broadtail shortfin squid-sa 18/no information European squid-sa 9/no information Musky octopus-sa 11/no information Marine molluscs nei-sa 16/no information Gilthead seabream-sa 18/no information Blue and red shrimp-ara-gsa09/assessed European seabass-sa 18/no information Blackbellied angler-sa 19/no information Broadtail shortfin squid-sa 9/no information Red mullet-mut-gsa10/assessed Whiting-sa 17/no information Caramote prawn-sa 9/no information
ITA	ITA-AREA37-DTS-VL1824-NGI	1.86	49.91	Deep-water rose shrimp-dps-gsa12_13_14_15_16/assessed European hake-hke-gsa17_18/assessed Norway lobster-nep-gsa17_18/assessed European hake-hke-gsa09_10_11/assessed Common cuttlefish-ctc-gsa17/assessed Red mullet-mut-gsa09/assessed Caramote prawn-sa 17/no information Common sole-sol-gsa17/assessed European hake-hke-gsa12_13_14_15_16/assessed Horned octopus-sa 9/no information Musky octopus-sa 17/no information Deep-water rose shrimp-dps-gsa09_10_11/assessed Red mullet-mut-gsa17_18/assessed Caramote prawn-sa 9/no information Swordfish-swo-med/assessed Red mullet-mut-gsa17/assessed Blackbellied angler-sa 17/no information Spottail mantis squillid-mts-gsa17_18/assessed European hake-hke-gsa09/assessed European squid-sa 9/no information Deep-water rose shrimp-dps-gsa17_18_19/assessed Giant red shrimp-ars-gsa10/assessed Deep-water rose shrimp-dps-gsa09/assessed Spottail mantis squillid-mts-gsa17/assessed Spottail mantis squillid-sa 9/no information Giant red shrimp-sa 16/no information Surmullet-sa 16/no information Giant red shrimp-ars-gsa18_19/assessed Deep-water rose shrimp-dps-gsa17_18/assessed Whiting-sa 17/no information European squid-sa 17/no information Common cuttlefish-sa 16/no information Norway lobster-sa 16/no information Broadtail shortfin squid-sa 17/no information Musky octopus-sa 16/no information Broadtail shortfin squid-sa 9/no information Common cuttlefish-sa 9/no information European squid-sa 16/no information Horned octopus-sa 18/no information Blue and red shrimp-ara-gsa09/assessed Silver scabbardfish-sa 16/no information Red mullet-mut-gsa10/assessed Musky octopus-sa 11/no information European squid-sa 18/no information Norway lobster-nep-gsa09/assessed European anchovy-ane-gsa09_10_11/assessed Common pandora-sa 10/no information Musky octopus-sa 9/no information Deep-water rose shrimp-dps-gsa10/assessed Surmullet-sa 11/no information Alloteuthis squids nei-sa 9/no information Silver scabbardfish-sa 10/no information Musky octopus-sa 10/no information Alloteuthis squids nei-sa 17/no information Common pandora-sa 9/no information Blue and red shrimp-sa 10/no information Musky octopus-sa 18/no information European hake-hke-gsa19/assessed
ITA	ITA-AREA37-HOK-VL1218-NGI	2.06	63.85	Swordfish-swo-med/assessed European hake-hke-gsa17_18/assessed Blackbelly rosefish-sa 18/no information Silver scabbardfish-sa 19/no information Common pandora-sa 18/no information Tub gurnard-sa 18/no information
ITA	ITA-AREA37-HOK-VL1824-NGI	1.49	94.37	Swordfish-swo-med/assessed Albacore-alb-med/assessed
ITA	ITA-AREA37-PGP-VL1218-NGI	2.5	48.24	Swordfish-swo-med/assessed European hake-hke-gsa09_10_11/assessed Greater amberjack-sa 11/no information Common spiny lobster-sa 11/no information European anchovy-sa 19/no information Albacore-alb-med/assessed European pilchard(=Sardine)-sa 11/no information European pilchard(=Sardine)-sa 19/no information European hake-hke-gsa19/assessed Marine fishes nei-sa 9/no information Common octopus-sa 11/no information Common dolphinfish-sa 10/no information Common cuttlefish-sa 19/no information Atlantic chub mackerel-sa 19/no information Red scorpionfish-sa 11/no information Atlantic bonito-sa 19/no information Common pandora-sa 9/no information Atlantic bluefin tuna-bft-ea/assessed Greater amberjack-sa 9/no information Silver scabbardfish-sa 9/no information Spottail mantis squillid-mts-gsa17_18/assessed Spottail mantis squillid-mts-gsa17/assessed Surmullet-sa 11/no information European hake-hke-gsa09/assessed Giant red shrimp-ars-gsa18_19/assessed Silver scabbardfish-sa 10/no information
ITA	ITA-AREA37-PMP-VL0612-NGI	1.73	58.99	Swordfish-swo-med/assessed Atlantic chub mackerel-sa 10/no information European anchovy-ane-gsa09_10_11/assessed Bogue-sa 10/no information Marine fishes nei-sa 10/no information Albacore-alb-med/assessed
ITA	ITA-AREA37-PMP-VL1218-NGI	1.97	69.72	Swordfish-swo-med/assessed Marine fishes nei-sa 10/no information Common dolphinfish-sa 10/no information European hake-hke-gsa09_10_11/assessed
ITA	ITA-AREA37-PS-VL1218-NGI	1.84	52.77	European anchovy-ane-gsa09_10_11/assessed European anchovy-ane-gsa09/assessed European pilchard(=Sardine)-sa 10/no information European anchovy-sa 19/no information Common dolphinfish-sa 10/no information Greater amberjack-sa 10/no information European anchovy-ane-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed Atlantic bluefin tuna-bft-ea/assessed European pilchard(=Sardine)-sa 19/no information Atlantic chub mackerel-sa 19/no information European pilchard(=Sardine)-pil-gsa17_18/assessed European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed

Country code	Fleet code	SHI	% of coverage	Major stock
				European anchovy-sa 16/no information Greater amberjack-sa 9/no information Round sardinella-sa 10/no information
ITA	ITA-AREA37-PS-VL1824-NGI	1.51	62.33	European anchovy-ane-gsa09_10_11/assessed European anchovy-sa 16/no information European anchovy-ane-gsa09/assessed European pilchard(=Sardine)-pil-gsa16/assessed
ITA	ITA-AREA37-PS-VL2440-NGI	2.14	86.81	European anchovy-ane-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed European anchovy-ane-gsa09/assessed Atlantic bluefin tuna-bft-ea/assessed
ITA	ITA-AREA37-TBB-VL1218-NGI	3.51	49.46	Common sole-sol-gsa17/assessed Scallops nei-sa 17/no information Common cuttlefish-ctc-gsa17/assessed
ITA	ITA-AREA37-TBB-VL1824-NGI	3.47	74.61	Common sole-sol-gsa17/assessed Common cuttlefish-ctc-gsa17/assessed Great Mediterranean scallop-sa 17/no information Caramote prawn-sa 17/no information
ITA	ITA-AREA37-TBB-VL2440-NGI	3.62	59.61	Common sole-sol-gsa17/assessed Purple dye murex-sa 17/no information Caramote prawn-sa 17/no information Common cuttlefish-ctc-gsa17/assessed
ITA	ITA-AREA37-TM-VL1218-NGI	2.59	88.4	European anchovy-ane-gsa17_18-GFCM/assessed European anchovy-ane-gsa17_18/assessed European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18/assessed
ITA	ITA-AREA37-TM-VL1824-NGI	2.58	87.97	European anchovy-ane-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18/assessed
ITA	ITA-AREA37-TM-VL2440-NGI	2.54	96.88	European anchovy-ane-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed
MLT	MLT-AREA37-HOK-VL0612-NGI	1.54	74.07	Swordfish-swo-med/assessed Atlantic bluefin tuna-bft-ea/assessed Common dolphinfish-sa 15/no information
MLT	MLT-AREA37-HOK-VL1218-NGI	1.27	67.84	Swordfish-swo-med/assessed Atlantic bluefin tuna-bft-ea/assessed Common dolphinfish-sa 15/no information
MLT	MLT-AREA37-HOK-VL1824-NGI	1.6	68.37	Swordfish-swo-med/assessed Silver scabbardfish-sa 15/no information Albacore-alb-med/assessed
MLT	MLT-AREA37-PMP-VL1218-NGI	1.85	67.6	Swordfish-swo-med/assessed Common dolphinfish-sa 15/no information
ROU	ROU-AREA37-PG-VL0006-NGI	2.53	60.76	European anchovy-ane-gsa29/assessed Pontic shad-sa 29/no information Thomas rapa whelk-rpw-gsa29/assessed Gobies nei-sa 29/no information Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed'
ROU	ROU-AREA37-PG-VL0612-NGI	2.78	83.68	European anchovy-ane-gsa29/assessed Turbot-tur-gsa29/assessed Turbot-tur-gsa29-GFCM/assessed Mediterranean horse mackerel-hmm-gsa29/assessed Mediterranean horse mackerel-hmm-gsa29-GFCM/assessed
ROU	ROU-AREA37-PMP-VL0612-NGI	2.31	83.83	Thomas rapa whelk-rpw-gsa29/assessed Mediterranean mussel-sa 29/no information'
ROU	ROU-AREA37-PMP-VL1218-NGI	2.33	99.81	Thomas rapa whelk-rpw-gsa29/assessed'
ROU	ROU-AREA37-PMP-VL1824-NGI	2.25	98.46	Thomas rapa whelk-rpw-gsa29/assessed'
ROU	ROU-AREA37-PMP-VL2440-NGI	2.36	100	Thomas rapa whelk-rpw-gsa29/assessed'
SVN	SVN-AREA37-DFN-VL0612-NGI	4.05	41.42	Common sole-sol-gsa17/assessed Gilthead seabream-sa 17/no information European seabass-sa 17/no information Common pandora-sa 17/no information Common cuttlefish-ctc-gsa17/assessed Smooth-hound-sa 17/no information European pilchard(=Sardine)-pil-gsa17_18/assessed European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed
SVN	SVN-AREA37-PS-VL1218-NGI	2.88	94.8	European pilchard(=Sardine)-pil-gsa17_18-GFCM/assessed European pilchard(=Sardine)-pil-gsa17_18/assessed European anchovy-ane-gsa17_18-GFCM/assessed European anchovy-ane-gsa17_18/assessed

Table 6.1.3 List of fleet segment by country in OFR that in 2016 were out of balance according to the SHI indicator. Note that the SHI has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final), using 40% of the annual value of landings that came from assessed stocks as threshold (% of coverage).

Country code	Fleet code	SHI	% of coverage	Major stock
FRA	FRA-OFR-HOK-VL0010-	1.03	72.87	Yellowfin tuna-yft-io/assessed Swordfish-swo-io/assessed Albacore-alb-io/assessed Common dolphinfish-51.7/no information Blue marlin-bum-io/assessed
PRT	PRT-OFR-HOK-VL0010-P2	1.21	53.99	Bigeye tuna-bet-atl/assessed Black scabbardfish-34.1.2/no information
PRT	PRT-OFR-HOK-VL2440-P2	1.04	97.02	Bigeye tuna-bet-atl/assessed Albacore-alb-na/assessed

Table 6.1.4 List of fleet segment by country in Area 27 that in 2016 were out of balance according to the SAR indicator. Note that the SAR has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final).

Country	Fleet segment	SAR	Major stocks
BEL	BEL A27 TBB2440	1	Common sole - sol.27.7a
DEU	DEU A27 DFN1218	1	Atlantic herring - her.27.20-24
DEU	DEU A27 DTS1012 °	2	Atlantic herring - her.27.20-24,Atlantic cod - cod.27.22-24
DEU	DEU A27 DTS1218	2	Atlantic herring - her.27.20-24,Atlantic cod - cod.27.22-24
DEU	DEU A27 DTS1824	1	Atlantic cod - cod.27.22-24
DEU	DEU A27 DTS40XX	2	Golden redfish - reg.27.1-2,Atlantic cod - cod.27.1-2coast
DEU	DEU A27 PG0010	2	Atlantic herring - her.27.20-24,Atlantic cod - cod.27.22-24
DEU	DEU A27 PG1012	2	Atlantic herring - her.27.20-24,Atlantic cod - cod.27.22-24
DEU	DEU A27 TM40XX °	4	Atlantic herring - her.27.3a47d,Atlantic herring - her.27.20-24,Atlantic herring - her.27.6a7bc,Atlantic horse mackerel - hom.27.2a4a5b6a7a-ce-k8
DNK	DNK A27 DTS1012	1	Atlantic cod - cod.27.22-24
DNK	DNK A27 DTS1218	1	Atlantic cod - cod.27.22-24
DNK	DNK A27 DTS1824	4	Roundnose grenadier - rng.27.3a,Blue skate - rjb.27.67a-ce-k,Blue skate - rjb.27.3a4,Sandeels(=Sandlances) nei - san.sa.2r
DNK	DNK A27 DTS2440	4	Blue skate - rjb.27.3a4,Sandeels(=Sandlances) nei - san.sa.1r,Sandeels(=Sandlances) nei - san.sa.3r,Pollack - pol.27.3a4
DNK	DNK A27 DTS40XX	3	Sandeels(=Sandlances) nei - san.sa.3r,Sandeels(=Sandlances) nei - san.sa.2r,Sandeels(=Sandlances) nei - san.sa.1r
DNK	DNK A27 PGP0010	3	Atlantic cod - cod.27.22-24,European eel - ele.2737.nea,Blue skate - rjb.27.67a-ce-k
DNK	DNK A27 PGP1012	2	Atlantic cod - cod.27.22-24,Blue skate - rjb.27.67a-ce-k
DNK	DNK A27 PMP0010	1	Atlantic cod - cod.27.22-24
DNK	DNK A27 TM1218	3	Atlantic herring - her.27.20-24,Atlantic herring - her.27.3a47d,Sandeels(=Sandlances) nei - san.sa.1r
DNK	DNK A27 TM40XX	4	Atlantic herring - her.27.3a47d,Sandeels(=Sandlances) nei - san.sa.3r,Sandeels(=Sandlances) nei - san.sa.2r,Sandeels(=Sandlances) nei - san.sa.1r
ESP	ESP A27 DFN1218	6	Indo-Pacific gurnards - guitarfishes,Spectrolebias semiocellatus - smoothlanternshark, - velvetbelly,Undulate ray - rju.8c,Line-spotted barb - bullray,Sawfishes - sawbackangelshark
ESP	ESP A27 DTS1218 °	1	European pilchard(=Sardine) - pil.27.8c9a
ESP	ESP A27 DTS1218 °	2	Sawfishes - sawfishesnei,Line-spotted barb - bullray
ESP	ESP A27 DTS1824	3	Angelshark - agn.27.nea,Line-spotted barb - bullray,Norway lobster - nep.fu.30
ESP	ESP A27 DTS2440	2	Leafscale gulper shark - guq.27.nea,Blackspot(=red) seabream - sbr.27.6-8
ESP	ESP A27 DTS40XX °	6	Atlantic cod - cod.27.1-2,Beaked redfish - reb.27.1-2,Atlantic cod - cod.27.1-2coast,Roughhead grenadier - rhg.27.nea,Amer. plaice(=Long rough dab) -

Country	Fleet segment	SAR	Major stocks
			pla.3lno,Blue ling - bli.27.nea
ESP	ESP A27 HOK1012 °	1	Undulate ray - rju.8c
ESP	ESP A27 HOK1218	2	Bluefish - bluntnosesixgillshark,Undulate ray - rju.8c
ESP	ESP A27 HOK1824	1	Blackspot(=red) seabream - sbr.27.6-8
ESP	ESP A27 PMP0010	3	Angelshark - agn.27.nea,Line-spotted barb - bullray,Undulate ray - rju.8c
ESP	ESP A27 PMP1218 °	1	- oceanicwhitetip
ESP	ESP A27 PS1012 °	2	European pilchard(=Sardine) - pil.27.8c9a,Atlantic horse mackerel - hom.27.2a4a5b6a7a-ce-k8
ESP	ESP A27 PS1012 °	1	Atlantic horse mackerel - hom.27.2a4a5b6a7a-ce-k8
ESP	ESP A27 PS1218	2	Sawfishes - sawbackangelshark,European pilchard(=Sardine) - pil.27.8c9a
ESP	ESP A27 PS1824	1	European pilchard(=Sardine) - pil.27.8c9a
ESP	ESP A27 PGP2440 °	2	Blue ling - bli.27.nea,Blackspot(=red) seabream - sbr.27.6-8
FRA	FRA A27 DFN0010	1	Silver moony - moussecatshark
FRA	FRA A27 DFN1012 °	5	- velvetbelly,Silver moony - moussecatshark,Bluefish - bluntnosesixgillshark,Angelshark - agn.27.nea,Portuguese dogfish - cyo.27.nea
FRA	FRA A27 DFN1218 °	1	- blackdogfish
FRA	FRA A27 DFN2440	1	Portuguese dogfish - cyo.27.nea
FRA	FRA A27 DRB1012	1	Portuguese dogfish - cyo.27.nea
FRA	FRA A27 DRB1218 °	1	Orange roughy - ory-nea
FRA	FRA A27 DTS1012 °	2	Undulate ray - rju.27.7.bj,Porbeagle - por.27.nea
FRA	FRA A27 DTS1218	2	Blue skate - rjb.27.89a, - blackdogfish
FRA	FRA A27 DTS1824 °	6	Blue skate - rjb.27.89a,Atlantic cod - cod.27.7e-k,European plaice - ple.27.7h-k,Tope shark - gag.27.nea,Orange roughy - ory-nea,European seabass - bss.27.4bc7ad-h
FRA	FRA A27 DTS2440 °	2	Atlantic cod - cod.27.7e-k,European plaice - ple.27.7h-k
FRA	FRA A27 DTS40XX	3	Blue ling - bli.27.5b67,Atlantic cod - cod.27.6a,Blue ling - bli.27.nea
FRA	FRA A27 FPO0010	2	Narrow-barred Spanish mackerel - commonskate,White skate - rja.27.nea
FRA	FRA A27 FPO1012	1	- blackdogfish
FRA	FRA A27 HOK0010	3	Sandeels(=Sandlances) nei - san.sa.1r,Blackspot(=red) seabream - sbr.27.6-8,European seabass - bss.27.4bc7ad-h
FRA	FRA A27 HOK1012	2	Bluefish - bluntnosesixgillshark,White skate - rja.27.nea
FRA	FRA A27 MGP1012 °	1	White skate - rja.27.nea
FRA	FRA A27 DTS1824 °	1	Cuskpout - deep-watercatshark
GBR	GBR A27 DFN0010	1	European seabass - bss.27.4bc7ad-h
GBR	GBR A27 DTS1824	3	Atlantic cod - cod.27.6b,Atlantic cod - cod.27.7a,Atlantic cod - cod.27.6a

Country	Fleet segment	SAR	Major stocks
GBR	GBR A27 DTS2440	7	Blue skate - rjb-celt,Haddock - had.27.5b,Atlantic cod - cod.27.6b,Atlantic cod - cod.27.6a,Pollack - pol.27.3a4,Whiting - whg.27.6a,Blue ling - bli.27.5b67
GBR	GBR A27 DTS40XX °	3	Beaked redfish - reb.2127.dp,Golden redfish - reg.27.1-2,Atlantic cod - cod.27.1-2coast
GBR	GBR A27 HOK0010	2	Spectrolebias semiocellatus - smoothhammerhead,European seabass - bss.27.4bc7ad-h
GBR	GBR A27 TM40XX °	1	Atlantic herring - her.27.6a7bc
GBR	GBR A27 TM40XX °	1	Atlantic herring - her.27.6a7bc
IRL	IRL A27 DTS1824	5	Whiting - whg.27.6a,Whiting - whg.27.7a,Common sole - sol.27.7a,Atlantic cod - cod.27.7a,Atlantic cod - cod.27.7e-k
IRL	IRL A27 DTS2440	4	Whiting - whg.27.7a,Atlantic cod - cod.27.6b,European plaice - ple.27.7h-k,Whiting
IRL	IRL A27 PMP1218 °	1	Atlantic herring - her.27.6a7bc
IRL	IRL A27 TM2440	1	Atlantic horse mackerel - hom.27.2a4a5b6a7a-ce-k8
IRL	IRL A27 TM40XX	2	Atlantic horse mackerel - hom.27.2a4a5b6a7a-ce-k8,Atlantic herring - her.27.6a7bc
IRL	IRL A27 DTS0010	1	Whiting - whg.27.7a
IRL	IRL A27 TBB2440 °	1	Atlantic cod - cod.27.7e-k
NLD	NLD A27 PG0010 °	1	European seabass - bss.27.4bc7ad-h
NLD	NLD A27 TM40XX °	1	Whiting - whg.27.6a
POL	POL A27 PG0010	1	European eel - ele.2737.nea
PRT	PRT A27 DFN0010 P3	1	Tope shark - gag.27.nea
PRT	PRT A27 DFN1218	2	Spinefeet(=Rabbitfishes) nei - spinybutterflyray,Undulate ray - rju.27.9a
PRT	PRT A27 DTS1824	1	Norway lobster - nep.fu.30
PRT	PRT A27 DTS2440	1	Norway lobster - nep.fu.30
PRT	PRT A27 DTS40XX IWE	3	Atlantic cod - cod.27.1-2,Amer. plaice(=Long rough dab) - pla.3lno, reb.27.1-2
PRT	PRT A27 HOK0010 P3	1	Tope shark - gag.27.nea
PRT	PRT A27 PGP0010	2	Spinefeet(=Rabbitfishes) nei - spinybutterflyray,Undulate ray - rju.27.9a
PRT	PRT A27 PS0010	1	European pilchard(=Sardine) - pil.27.8c9a
PRT	PRT A27 PS1012	1	European pilchard(=Sardine) - pil.27.8c9a
PRT	PRT A27 PS1218	1	European pilchard(=Sardine) - pil.27.8c9a
PRT	PRT A27 PS1824	1	European pilchard(=Sardine) - pil.27.8c9a
PRT	PRT A27 PS2440	1	European pilchard(=Sardine) - pil.27.8c9a
SWE	SWE A27 DFN0010 °	1	Atlantic cod - cod.27.22-24
SWE	SWE A27 DFN1012 °	2	Atlantic cod - cod.27.22-24,Atlantic herring - her.27.20-24

Country	Fleet segment	SAR	Major stocks
SWE	SWE A27 DFN1218 °	1	Atlantic cod - cod.27.22-24
SWE	SWE A27 DFN0010 °	1	European eel - ele.2737.nea
SWE	SWE A27 DTS2440 °	1	Atlantic herring - her.27.3a47d
SWE	SWE A27 DTS2440 °	1	Sandeels(=Sandlances) nei - san.sa.2r

Table 6.1.5 List of fleet segment by country in Area 37 that in 2016 were out of balance according to the SAR indicator. Note that the SAR has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final).

Country	Fleet segment	SAR	Major stocks
BGR	BGR A37 HOK0006	1	Picked dogfish - dgs-gsa29
BGR	BGR A37 HOK0612	1	Picked dogfish - dgs-gsa29
BGR	BGR A37 HOK1218	1	Picked dogfish - dgs-gsa29
BGR	BGR A37 PGP0612 °	1	Turbot - tur-gsa29
BGR	BGR A37 PMP1218	1	Picked dogfish - dgs-gsa29
BGR	BGR A37 TM1218 °	1	Turbot - tur-gsa29
BGR	BGR A37 TM1218 °	2	Picked dogfish - dgs-gsa29,Turbot - tur-gsa29
ESP	ESP A37 PGO1824 °	1	Porbeagle - por.27.nea
ROU	ROU A37 PG0612 °	1	Turbot - tur-gsa29
ROU	ROU A37 PMP1218 °	1	Turbot - tur-gsa29

Table 6.1.6 List of fleet segment by country in OFR that in 2016 were out of balance according to the SAR indicator. Note that the SAR has been estimated according to 2014 Balance Indicator Guidelines (COM (2014) 545 Final).

Country	Fleet segment	SAR	Major stocks
ESP	ESP OFR DTS40XX	1	Orange roughy - ory-sea
ESP	ESP OFR HOK1218	1	White grouper - gpw.34.1.31-32.3.11-12
ESP	ESP OFR HOK1012 °	1	Sandeels(=Sandlances) nei - sandtigershark
ESP	ESP OFR PGO2440 °	1	Striped marlin - mls-io
ESP	ESP OFR PGO40XX	1	Striped marlin - mls-io
FRA	FRA OFR HOK1218	1	Greeneyes - greatwhiteshark
LTU	LTU OFR TM40XX °	2	Beaked redfish - reb.27.14b,Beaked redfish - reb.27.1-2
PRT	PRT OFR HOK2440 P2	1	Striped marlin - mls-io
PRT	PRT OFR MGP1824 P2°	1	Spectrolebias semiocellatus - smoothhammerhead

7 TOR 5 – List of fleet segment out of balance in Outermost Regions of France(Réunion, French Guiana, Martinique, Guadalupe and Mayotte), Portugal (Madeira and Azores) and Spain (Canary Islands)

7.1 Introductory Remarks for TOR 5

EWG 18-14 was requested to respond to the following ToR:

"For the Outermost Regions of France (Réunion, French Guiana, Martinique, Guadalupe and Mayotte), Portugal (Madeira and Azores) and Spain (Canary Islands), list those fleet segments that according to the 2016 values for either the environmental, economic or technical indicators in the COM Guidelines (2014) 545 Final, as computed by the STECF, were indicated to be out of balance with their fishing opportunities together with the fish stocks on which such segments rely and the fishing area to which such segments are attributed. Separate lists should be provided for each indicator. The fish stocks on which a fleet segment is reliant shall be determined by ranking the landings from all stocks caught by that fleet segment in descending order in terms of landings value and listing those stocks that account for 75% of the total value of the landings by that fleet segment. List the fleet segments for which information available does not allow to calculate the above indicators and conclude on balance."

EWG 18-14 notes that the French Outermost Region (OMR), Saint Martin, should be included in the list and that by 'environmental' the ToR means 'biological' indicators, i.e. SAR and SHI.

EWG 18-14 also notes the ToR requests identification of biological, economic **or** technical indicators. EWG has therefore listed segments where one indicator is imbalanced. However, to determine imbalance in a fleet segment these indicators should be considered in combination and over time. The listing of the fleet segments below does not necessarily indicate imbalance in the fleet segment, only that at least one indicator shows imbalance in 2016.

7.2 OMR fleets at a glance

The EU OMR fleet totalled 3,687 vessels in 2016. The French OMR fleet was the most numerous, accounting for 65% of all reported vessels. The Spanish and Portuguese fleets each comprised 17% each.

Martinique, with 991 vessels, was the largest OMR fleet (by number), followed by Guadeloupe (938), the Canary Islands (601), the Azores (536), La Reunion (227), Mayotte (145), French Guiana (143), and Madeira (85).

About 91% of the vessels in OMR belong to the small-scale coastal fleet (SSCF).

The OMR fleet spent 125 thousand days at sea in 2016, to land approximately 20 thousand tonnes of seafood valued in EUR 89 million (NB Data for Martinique and Mayotte are not included in these totals).

Tuna and other large pelagic species represent a significant part of the landings with skipjack, bigeye, yellowfin, and albacore tuna the largest components by weight.

The Canaries fleet was the most important (by landed weight and value), generating an income of some EUR 34 million (66% of the total by weight and 56% by value), followed by the French (EUR 19.6 million) and Portuguese (EUR 18.5 million) OMR fleets.

The 2018 Annual Economic Report (STECF 18-07) provides more details on the OMR fleets and their economic performance.

7.3 Methodological Approach to identifying OMR fleet segments

The geographical indicator was introduced some years ago within the DCF fleet segmentation to enable distinguishing between: (1) fishing fleets operating in EU outermost regions (local fleet), (2) fleets operating predominately in non-EU waters and (3) fleets operating exclusively in international waters. Portugal has made extensive use of this additional segmentation code to report fleet segment data under the DCF – allowing not only to distinguish the Azorean OMR fleet from the mainland fleet (both located in FAO 27) but also fleets operating in the OMR of Madeira from the distant water fleets (both classified as OFR as according to the supra-region in the DCF). Additionally, by using the geo-code 'IWE' it is also possible to distinguish fleets operating predominately in non-EU waters from fleets operating exclusively in international waters. Spain and France, however, have not yet made much use of such indicator to identify their OMR and DWF fleets. Together with other data limitations, the lack of this identifier further hinders analysing EU fleet activity at the desired regional scale.

If the geographical indicator does not clearly identify an OMR fleet, the 'Other Fishing Region' (OFR) fleet segments with an LOA below 24m that operate within the EEZs of one of the seven EU OMR are assumed to be an OMR fishing fleet.

For Portugal the fleet segments of the Azores and Madeira are readily identified by the additional OMR geographical indicators provided.

Spain's fleet segments in the Canaries are identified as the OFR fleet segments that are less than 24m, based on the assumption that vessels below 24m are likely to be based in the Canaries.

For France the OMR fleet segments are identified from data provided to the AER 18-07 EWG.

For the OMR fleet segments identified, the biological, economic or technical indicators were determined. If one or more indicators are shown not to be balanced, the value of landings making up 75% for that fleet segment are listed.

STECF has expressed the view that technical indicators are not appropriate for determining overcapacity in small scale fleets. Therefore, for fleet segments below 12m in length, segments are not considered if it is only the technical indicators that are out of balance.

EWG 18-14 also notes that the ToR requires imbalanced fleets to be identified using STECF data, i.e. imbalance is not based on the MS assessment of imbalance as reported in the MS fleet reports. The list of species by landed value for each OMR fleet segment with an indicator out of balance is determined from the DCF data. The landings data per fleet segment is presented by FAO major fishing area and sub-area, as shown in the figures 7.3.1-3.

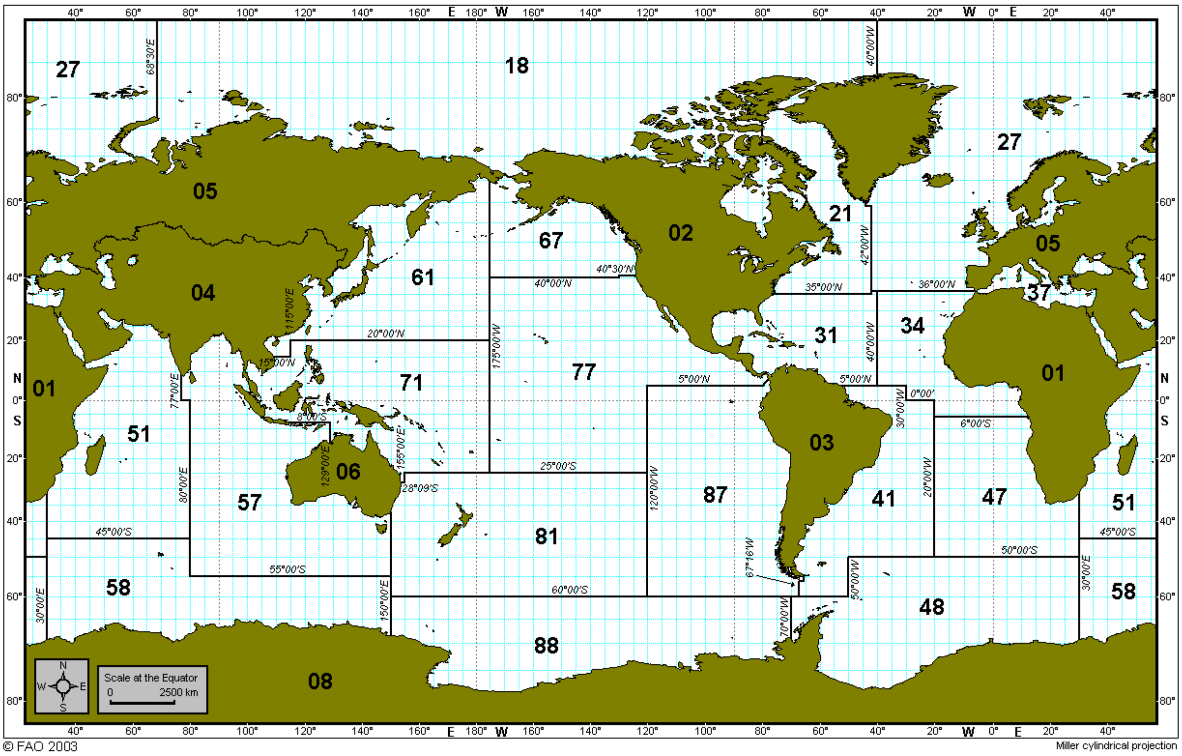


Figure 7.3.1 - FAO Fishing Areas. Source: FAO

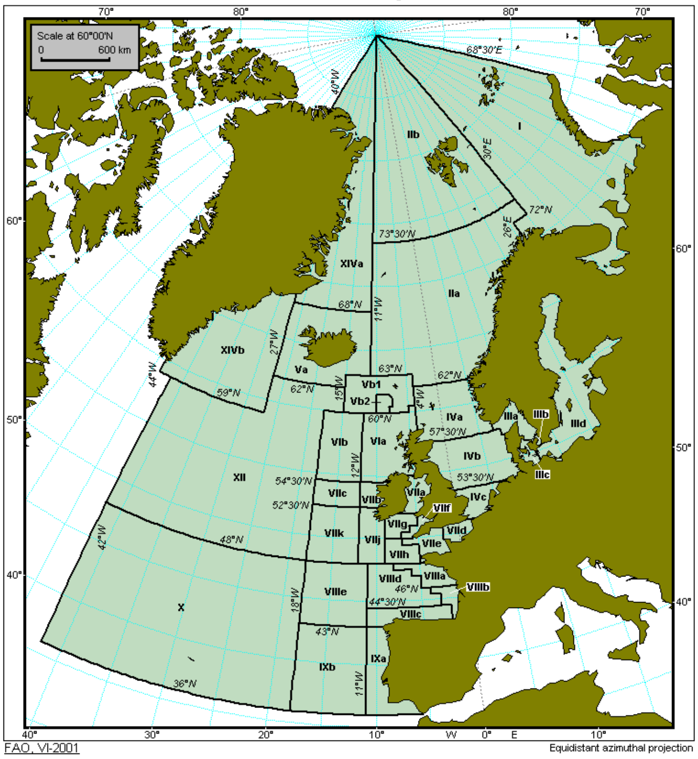


Figure 7.3.2 - FAO major fishing area 27 Atlantic North East

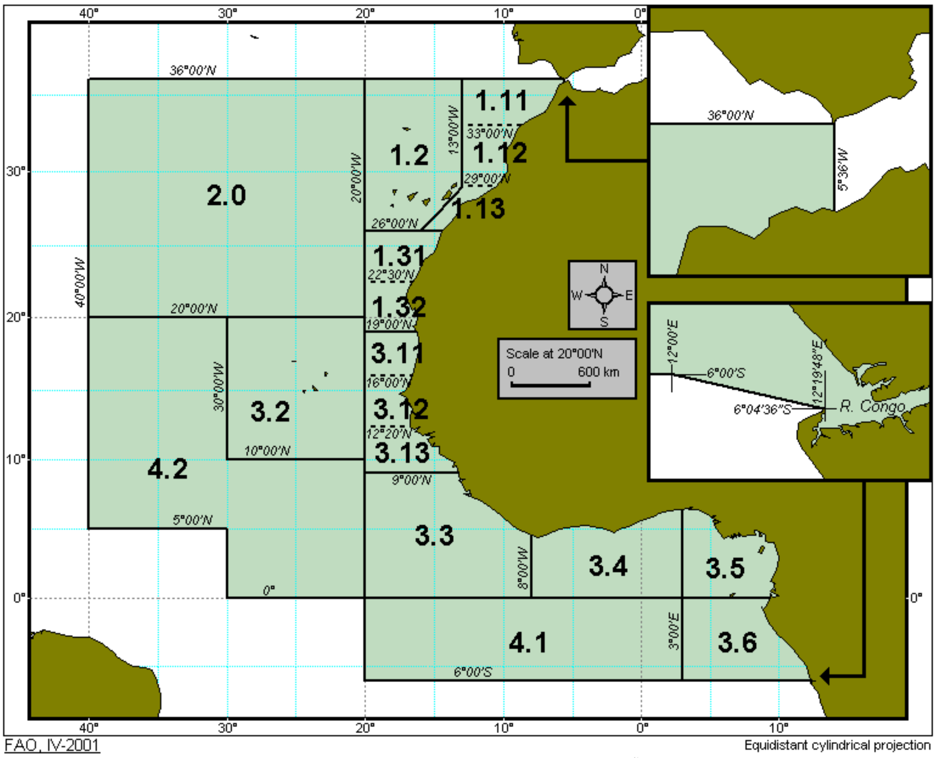


Figure 7.3.3 - FAO major fishing area 34 Atlantic Eastern Central. Source: FAO

7.4 French Outermost regions

The tables 7.4.1 lists the fleet segments of the six French OMRs.

Balance indicators are not disaggregated by OMR fleet segment in the data provided. Therefore, it is not possible to establish which of the OMR fleet segments in the 7.4.1 table have indicators for 2016 that are out of balance. The French annual fleet report submitted in 2018 mentions the monitoring of three OMR fleet segments, which suggests that indicators are calculated at the OMR fleet segment level at least in the OMRs listed:

- French Guiana DTS 18-24m (15 vessels) for biological indicators
- La Réunion HOK 12-18 (4 vessels) for economic indicators
- La Réunion HOK 18-24 (15 vessels) for economic indicators

Table 7.4.1 - Fleet segments in the French outermost regions in 2016

French Guyana	**Mayotte**	**Martinique**
DFN 0010	DFN 0010	DFN 0010
DFN 1012	HOK 0010	DFN 1012
DTS 1824	INACTIVE 0010	FPO 0010
HOK 0010	PGP 0010	FPO 1012
INACTIVE 0010		FPO 1218
INACTIVE 1012		HOK 0010
INACTIVE 1824		HOK 1012
PGP 0010	**Reunion**	INACTIVE 0010
	HOK 0010	INACTIVE 1012
Guadeloupe	HOK 1012	INACTIVE 1218
DFN 0010	HOK 1218	INACTIVE 1824
DFN 1012	HOK 1824	PGO 0010
FPO 0010	INACTIVE 0010	PGP 0010
FPO 1012	INACTIVE 1824	PGP 1012
HOK 0010	PGO 0010	PS 0010
HOK 1012	PGP 0010	
INACTIVE 0010		**St Martin**
INACTIVE 1012		FPO 0010
PGO 0010		HOK 0010
PGP 0010		INACTIVE 0010
PGP 1012		INACTIVE 1012
PS 0010		PGP 0010

7.5 Portuguese Outermost regions

The data provided for the two Portuguese OMRS, Azores and Madeira, use the geographical indicator to distinguish the OMR fleets and the balance indicators associated with those fleets.

Azores

As the table 7.5.1 illustrates, three fleet segments have indicators that are out of balance. It should be noted that the SHI could only be calculated for two segments.

Two small scale fleet segments (DFN 0010 and HOK 0010) show the SAR biological indicator as out of balance (in addition to the technical indicator that is discounted for small scale fleets). The HOK 2440 shows economic and technical indicators that are out of balance.

Table 7.5.1 - Fleet segments in the Azores and balance indicator values for 2016

in balance | out of balance | not available

	Status 2016 according to thresholds and criteria in the 2014 Guidelines					
Fleet segment	**VUR**	**VUR220**	**CR/BER**	**RoFTA**	**SAR**	**SHI**
DFN0010 P3	out of balance	out of balance	in balance	in balance	out of balance	not available
HOK0010 P3	out of balance	out of balance	in balance	in balance	out of balance	not available
HOK1012 P3	out of balance	out of balance	in balance	in balance	in balance	not available
HOK1218 P3	out of balance	out of balance	in balance	in balance	in balance	not available
HOK2440 P3	out of balance	out of balance	out of balance	out of balance	in balance	in balance
PGP0010 P3	not available	not available	in balance	in balance	in balance	not available
PS0010 P3	out of balance	out of balance	in balance	in balance	in balance	in balance
PS1012 P3	in balance	in balance	in balance	in balance	in balance	not available

The species listed represent at least 75% of the landed value for each fleet segment, with the remainder listed under 'other species'. For the DFN 0010 segment, Parrotfish account for 37.8% of the landed value, while for the HOK 0010 segment seabream and red porgy account for 47% of landed value.

For the larger HOK 2440 segment, bigeye tuna and albacore account for just over 50% of landings. Blue shark and swordfish are also significant components of the catch value (Table 7.5.2)

Table 7.5.2 - Species landed by fleet segments in Azores with one or more indicator out of balance in 2016

Azores DFNVL0010			
Imbalanced indicators: VUR, SAR	Landings 2016		
Species/Fishing area	*Weight*	*Value*	*% Value*
Parrotfish	**122,583**	**356,048**	**37.8%**
27.10.a	122,583	356,048	
Red porgy	**8,128**	**71,174**	**7.6%**
27.10.a	8,128	71,174	
Yellowmouth barracuda	**12,886**	**44,163**	**4.7%**
27.10.a	12,886	44,163	
Blackspot(=red) seabream	**3,096**	**40,065**	**4.3%**
27.10.a	3,096	40,065	
White trevally	**7,132**	**39,991**	**4.2%**
27.10.a	7,132	39,991	
Greater amberjack	**6,215**	**37,361**	**4.0%**
27.10.a	6,215	37,361	
Blacktail comber	**7,909**	**34,001**	**3.6%**
27.10.a	7,909	34,001	
Atlantic bonito	**6,683**	**27,795**	**3.0%**
27.10.a	6,683	27,795	
European pilchard(=Sardine)	**9,276**	**26,157**	**2.8%**
27.10.a	9,276	26,157	
Forkbeard	**6,028**	**23,523**	**2.5%**
27.10.a	6,028	23,523	
Wreckfish	**1,559**	**23,414**	**2.5%**
27.10.a	1,559	23,414	
Other Species	**78,989**	**218,191**	**23.2%**

Total	**270,484**	**941,883**	

Azores HOKVL0010			
Imbalanced indicators: VUR, SAR	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Blackspot(=red) seabream	**216,856**	**2,812,323**	**31.2%**
27.10.a	216,856	2,812,323	
Red porgy	**136,146**	**1,437,957**	**15.9%**
27.10.a	136,146	1,437,957	
Wreckfish	**29,206**	**455,880**	**5.0%**
27.10.a	29,206	455,880	
Blacktail comber	**80,379**	**376,755**	**4.2%**
27.10.a	80,379	376,755	
Red scorpionfish	**24,323**	**375,523**	**4.2%**
27.10.a	24,323	375,523	
Forkbeard	**79,413**	**373,304**	**4.1%**
27.10.a	79,413	373,304	
Common spiny lobster	**12,482**	**357,587**	**4.0%**
27.10.a	12,482	357,587	
Dusky grouper	**34,807**	**292,333**	**3.2%**
27.10.a	34,807	292,333	
European conger	**132,031**	**249,945**	**2.8%**
27.10.a	132,031	249,945	
Veined squid	**31,311**	**244,492**	**2.7%**
27.10.a	31,311	244,492	
Blackbelly rosefish	**627,259**	**2,051,844**	**22.7%**
Total	**1,404,213**	**9,027,943**	

Azores HOKVL2440			
Imbalanced indicators: VUR, CR/BER, RoFTA	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Bigeye tuna	**1,091,673**	**2,840,115**	**32.2%**
27.9.a	3,577	26,710	
34.1.2	950,508	2,408,504	
27.10.a	137,199	403,281	
27.8.e	9	34	
27.9.b	380	1,586	
Albacore	**751,029**	**1,705,900**	**19.3%**
34.1.2	750,627	1,704,349	
27.10.a	402	1,551	
Blue shark	**248,764**	**1,106,473**	**12.5%**
27.9.a	15,980	60,974	
34.1.2	7,122	28,266	
27.10.a	150,171	686,683	
27.8.e	1,731	7,266	
27.9.b	67,051	298,542	
34.2	6,709	24,742	
Swordfish	**188,398**	**1,052,629**	**11.9%**
27.9.a	77,671	530,399	
34.1.2	622	2,359	
27.10.a	79,360	384,659	
27.8.e	3,135	12,381	
27.9.b	26,650	119,289	
34.2	960	3,542	

Other species	**783,754**	**2,115,036**	**24.0%**
Total	**3,063,618**	**5,345,583**	

Madeira

The economic indicators and the SHI could not be calculated for all fleet segments, however four of the Madeira fleet segments show one or more indicators out of balance. The small scale HOK 0010, and the larger 2440 segment both show biological indicators that are out of balance. The HOK 1824 shows technical overcapacity. Economic and biological indicators are shown to be out of balance for the polyvalent MGP 1824 segment (Table 7.5.3).

Table 7.5.3 - Fleet segments in Madeira and balance indicator values for 2016

in balance | out of balance | not available

	Status 2016 according to thresholds and criteria in the 2014 Guidelines					
Fleet segment	**VUR**	**VUR220**	**CR/BER**	**RoFTA**	**SAR**	**SHI**
HOK0010 P2						
HOK1218 P2						
HOK1824 P2						
HOK2440 P2						
MGP0010 P2						
MGP1824 P2						

The small scale HOK 0010 segment received 40% of its 2016 landed value from bigeye tuna landings. Bigeye was also a significant landing for the larger HOK 2440 segment (28%), with blue shark the most valuable component of the catch making up 34% of total catch value. For the HOK 1824 sector with a technical indicator out of balance, black scabbard fish is the main landing with 72.4% of the value. The polyvalent MGP 1824 fleet with economic and biological indicators out of balance mostly lands jack mackerel (74.8% of landed value; Table 7.5.4)

Table 7.5.4 - Species landed by fleet segments in Madeira with one or more indicator out of balance in 2016

Madeira HOKVL0010			
Imbalanced indicators: VUR, SHI	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Bigeye tuna	**139,387**	**747,478**	**40.0%**
34.1.2	139,387	747,478	
Limpets nei	**117,526**	**433,137**	**23.2%**
34.1.2	117,526	433,137	
Black scabbardfish	**101,640**	**407,814**	**21.9%**
34.1.2	101,640	407,814	
Other species	**69,163**	**277,970**	**14.9%**
Total	**427,715**	**1,866,398**	

Madeira HOKVL1824			
Imbalanced indicators: VUR	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Black scabbardfish	**214,622**	**782,419**	**72.4%**
34.1.2	214,622	782,419	
Bigeye tuna	**90,846**	**216,643**	**20.1%**
34.1.2	90,846	216,643	
Albacore	**34,074**	**81,237**	**7.5%**
Total	**339,542**	**1,080,298**	

Madeira HOKVL2440			
Imbalanced indicators: VUR, SAR, SHI	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Blue shark	**325,683**	**1,159,432**	**33.8%**
51.8	325,683	1,159,432	

Bigeye tuna	**426,190**	**952,102**	**27.7%**
34.1.2	334,430	952,102	
51.8	91,761		
Swordfish	**195,880**	**830,530**	**24.2%**
51.8	195,880	830,530	
Other species	**282,129**	**446,977**	**13.0%**
Total	**1,138,121**	**3,389,042**	

Madeira MGPVL1824			
Imbalanced indicators: CR/BER, RoFTA, SAR	Landings 2016		
Specie/Fishing area	*Weight*	*Value*	*% Value*
Blue jack mackerel	**614,971**	**379,893**	**74.8%**
34.1.2	614,971	379,893	
Chub mackerel	**332,441**	**126,922**	**24.2%**
34.1.2	332,441	126,922	
Other species	**4,435**	**4,985**	**1.0%**
Total	**951,848**	**511,800**	

7.6 Spanish Outermost regions

Canaries

The fleet segments for the Canaries were identified through assuming vessels operating in Other Fishing Regions (OFR) below 24m in length are ‘local’ OMR fleets. Three of these segments have at least one economic or biological indicator that were out of balance for 2016. The HOK 1218 have both economic and biological indicators that are out of balance in 2016, while HOK 1012 shows the SAR biological to be out of balance. The PMP 1012 segment shows economic indicators that are out of balance for 2016 (Table 7.6.1).

Table 7.6.1 - Fleet segments in The Canaries and balance indicator values for 2016*

in balance out of balance not available

	Status 2016 according to thresholds and criteria in the 2014 Guidelines					
Fleet segment	**VUR**	**VUR220**	**CR/BER**	**RoFTA**	**SAR**	**SHI**
FPO1012						
HOK1012						
HOK1218						
HOK1824						
PMP1012						
PMP0010						
PS1218 °						

The small scale HOK 1012 and 1218 are both highly dependent on albacore (over 40% and 46% of landed value respectively). Albacore is also the top value species for the PMP 1012 segment (19.3% of landed value) along with dentex and salema porgy (Table 7.6.2).

Table 7.6.2 - Species landed by fleet segments in Canaries with one or more indicator out of balance in 2016

Canaries HOKVL1012			
Indicator: SAR	Landings 2016		
Species/Fishing area	*Weight*	*Value*	*% Value*
Albacore	**782,768**	**1,776,719**	**40.2%**
34.1.2	782,533	1,776,369	
34.1.1.3	235	350	
Skipjack tuna	**885,090**	**782,304**	**17.7%**
34.1.2	885,077	782,276	
sa 1	13	27	
Silver scabbardfish	**120,763**	**415,605**	**9.4%**

27.9.a	55,808	170,293	
34.1.2	1,040	3,391	
34.1.1.1	63,747	241,571	
sa 1	168	350	
Bigeye tuna	**154,779**	**353,140**	**8.0%**
34.1.2	154,779	353,140	
Other species	**225,038**	**1,087,218**	**24.6%**
Total	**2,168,438**	**4,414,986**	

Canaries HOKVL1218			
VUR, CR/BER, RoFTA, SAR	Landings 2016		
Species/Fishing area	*Weight*	*Value*	*% Value*
Albacore	**1,457,839**	**3,308,094**	**46.3%**
34.1.1.3	1,589	2,369	
34.1.2	1,456,251	3,305,725	
Blackspot(=red) seabream	**60,497**	**1,014,546**	**14.2%**
27.9.a	11,068	186,515	
34.1.1.1	31,163	555,687	
34.1.3	36	45	
sa 1	18,230	272,299	
Bigeye tuna	**282,437**	**644,404**	**9.0%**
34.1.2	282,437	644,404	
Silver scabbardfish	**129,755**	**462,444**	**6.5%**
27.9.a	37,464	114,319	
34.1.1.1	90,760	343,937	
34.1.2	850	2,772	
sa 1	681	1,416	

Other species	**793,099**	**1,709,914**	**24.0%**
Total	**2,723,628**	**7,139,402**	

Canaries PMP1012			
Imbalanced indicators: VUR220, CR/BER, RoFTA	Landings 2016		
Species/Fishing area	*Weight*	*Value*	*% Value*
Albacore	**22,999**	**52,209**	**19.3%**
34.1.2	22,999	52,209	
Pink dentex	**6,875**	**32,378**	**11.9%**
34.1.2	6,875	32,378	
Salema porgy	**14,679**	**30,215**	**11.1%**
34.1.2	14,679	30,215	
European anchovy	**10,541**	**17,530**	**6.5%**
34.1.2	10,541	17,530	
Red porgy	**2,711**	**16,053**	**5.9%**
34.1.2	2,711	16,053	
Skipjack tuna	**15,471**	**13,674**	**5.0%**
34.1.2	15,471	13,674	
Finfishes nei	**3,099**	**11,858**	**4.4%**
34.1.2	3,099	11,858	
White trevally	**2,293**	**9,851**	**3.6%**
34.1.2	2,293	9,851	
Dusky grouper	**1,151**	**9,183**	**3.4%**
34.1.2	1,151	9,183	
European pilchard(=Sardine)	**7,003**	**8,570**	**3.2%**
34.1.2	7,003	8,570	

Parrotfish	**1,054**	**5,469**	**2.0%**
34.1.2	1,054	5,469	
Other Species	**16,366**	**64,083**	**23.6%**
Total	**101,533**	**255,021**	

7.7 Concluding Remarks for TOR 5

ToR 5 is only fully addressed for the Portuguese OMRs as balance indicators are provided for each specific OMR fleet segment. Indicators are also presented for the Canaries fleet segments, but these segments are determined from the OFR based on assumptions. It has not been possible to identify indicators for French OMR fleet segments with the STECF data.

To fully deliver the requirements of this ToR, data is required for fleet segments with the specific OMR geographical indicator. This requirement to provide sufficiently disaggregated data should be clearly communicated to MS authorities in the data calls.

Where OMR fleet segments can be identified, the calculation of biological indicators is limited by a lack of data on stock status for the target species in some OMR regions.

8 TOR 6 – PROPOSE AND JUSTIFY AN IMPROVED SUITE OF ENVIRONMENTAL INDICATORS TO AID THE ASSESSMENT OF THE BALANCE BETWEEN FLEET CAPACITY AND FISHING OPPORTUNITIES.

The current guidelines 'for analysis of the balance between fishing capacity and fishing opportunities' were introduced in 2014 to provide Member States a common methodology for assessment of balance at fleet segment level during the preparation of the national fleet reports. These guidelines, as well as the the use of the fleet reports in EU framework were introduced to EWG 18-14 participants by DGMARE reperesentative Dr. Peña-Castellot. Following the presentation, a discussion started on the positive results of the guidelines currently in place, but also about the criticisms evidenced by several STECF-EWGs on balance indicators since 2015.

Over the years STECF stressed several times (e.g. STECF PLEN 13-01, STECF 14-02, STECF 15-05) that the biological indicators could be improved. EWG 18-14 summarizes in the following chapters the critical remarks regarding the current indicators, definition of possible new indicators and some preliminary results of applying those indicators (see e.g. STECF 15-05 for proposal of new indicators). In addition the EWG decided to include proposals to adapt the definition of the economic indicators to harmonize them with the definition of these indicators from the Annual Economic Report (AER). The EWG also discussed briefly about possible social indicators and on a possible way forward to improve the overall process for the assessment of the balance between fleet capacity and fishing opportunities.

8.1 Data and Process Improvements for biological indicators

The 2014 EC Balance Indicator Guidelines currently include two biological indicators, the Sustainable Harvest Indicator (SHI) and the Stock at Risk (SAR) Indicator. Previous STECF Balance EWGs highlighted issues with these indicators and the way they are currently defined in the 2014 Guidelines; a summary together with references to detailed explanations is provided in Annex I.

Since the introduction of the 2014 EC Balance Indicator Guidelines successive STECF EWGs have improved the process of calculating the biological indicators (i.e. of the SHI and SAR indicators). EWG 18-14 notes however that several issues remain to be addressed in order to further improve the accuracy and fleet segment coverage of the biological indicators.

The data requirements for potential alternative biological indicators such as the EDI, NOS and NSR are essentially the same as those for the SHI and SAR. As such the required data / calculation process improvements listed in Table 8.1.1 would still apply if alternative indicators were to be included in a revised version of the Balance Indictor Guidelines.

Table 8.1.1 - Summary of issues currently affecting the calculation of biological indicators and required improvements.

Issue	Required Improvement
Timeseries of F/F_{MSY} ratios are not readily available for Mediterranean and Black Sea stocks, and for stock assessments carried out by RFMOs for	Improved coordination with RFMOs is required in order to ensure that the raw data needed to calculate the biological indicators is available to experts. A

Issue	Required Improvement
fleets operating in Other Fishing Regions.	database with timeseries of F/F_{MSY} ratios for all stocks exploited by European fleets for which stock assessments are available should be constructed, and subsequently updated on an annual basis.
SAR indicator calculations in particular should be based on catch data, not landings data as is currently the case.	At present the data source for SAR indicator calculations is the economic datacall. In future years the new FDI datacall should be used as a data source for the biological indicator calculations. This will require careful consideration of the timings of data call, the current schedule of Balance EWGs, and EC requirements.
Indicator calculations (for outermost regions in particular) rely on data at fleet segment level to be available at a sufficiently disaggregated level.	Catch data must be available at the outermost region fleet segments level, which is not always the case at present. This requirement to provide sufficiently disaggregated data should be clearly communicated to MS authorities in data calls, and submission failures followed up by the JRC/EC.
Only landings from EU fleets are used to calculate whether the landings of a certain fleet segment comprise more than 10% of the overall landings for the SAR indicator threshold. The impact of EU fleets on stocks that are shared with non-EU countries may therefore be overestimated.	Updated catch data from non-EU countries should be requested from RFMOs (including for outermost regions) on an annual basis and be made available to the scientists calculating biological indicators.
Stock assessments continue to be lacking for many important target species. This issue is a particular concern for species targeted by fleets operating in Outermost Regions.	Annex VI show the 15 most important stocks in FAO major fishing Area 27 - Northeast Atlantic, Area 37 (Mediterranean and Black Sea), and OFR (Other Fishing Regions), based on catch values, which are targeted by fleet segments of the European fishing fleet for which no stock assessment data is available. Stock assessments for these species should be prioritised to improve indicator calculations.
For several species catch data is only available at aggregated species level (e.g. Anglerfishes nei; Atlantic redfishes nei; Catsharks, nursehounds nei etc.). The percentage of total landings data (in values) submitted by Member States for which only information for aggregated	Data at species level should be requested from Member States to improve the accuracy of biological indicator calculations. Where data at species level is not available Member States should provide explanations why and / or suggest ways of improving data in the future

Issue	Required Improvement
species is presented in Annex II.	where possible.
A reference list is currently used to divide commercial landings data at species level into stocks. See Annex III for splitting values by stock and area.	The stock reference list currently used to divide commercial landings data at species level into stocks should be peer-reviewed and validated / amended by the appropriate bodies (ICES, GFCM) as necessary.
Coastal fisheries of several MS target stocks which are assessed at national level, which at present are not included in the indicator calculations.	National assessments should be included in order to improve the quality and coverage of biological indicator calculations. A necessary prerequisite would be the availability of landings values and weights at the same geographic stratification level as the stock distribution. The inclusion of such stock assessment data should be made after review by an appropriate scientific body.
Inconsistent clustering of fleet segments over time (done in order to protect commercial confidentiality) by some MS continues to affect the quality of indicator calculations and in particular the assessment of indicator trends.	MS should be asked to use a consistent clustering approach. Where changes to the clustering approach are necessary the entire timeseries of data should be updated and re-submitted by MS.
Information from the ICES stock assessment graph database has been used to split the Nephrops landings in a given area into Functional Unit (FU) based estimates (if there was more than one FU in a given area). The shortcomings of this approximation are explained in section 4.4.2 of STECF 16-18.	For Norway lobster (*Nephrops norvegicus*) in Area 27 in particular catch data at the Functional Unit (FU) level should be requested from MS.

8.2 Candidate biological indicators

STECF 15-02 proposed several new indicators to address the issues with the current biological indicators:

- An indicator for the 'Number of Overharvested Stocks (NOS)';
- An 'Economic Dependency Indicator (EDI)';
- A revised version of the SAR indicator called the 'Number of Stocks at Risk (NSR)'.

STECF 15-15 subsequently continued working on the proposed indicators and suggested that the SHI may in fact provide useful information if used in conjunction with the EDI and the NOS indicators. The proposed changes to the indicators are explained in more detail below.

Number of Overharvested Stocks (NOS)

The NOS essentially indicates the number of stocks for which the ratio of F/FMSY is greater than 1.0 (i.e. stocks that at a particular point in time are being fished at rates that are not consistent with MSY) that are exploited by a fleet segment, provided that the catch of that fleet segment account for more than n%[7] of the total catches from that stock by all segments. This means that if a fleet segment takes a catch from a stock for which F/FMSY is greater than 1.0, but that catch represents less than or equal to n% of the total catches from that stock, the stock would not be counted in deriving the indicator value for the fleet segment. A hypothetical example is given in the table below. Moreover, only fleet segments which do not fish any overharvested stocks should have a NOS value of 0. Fleet segments which fish overharvested stocks, but fall below the n% threshold should have a NOS value of 'LP' (Low Proportion) to clearly indicate that although the fleet segment is fishing overharvested stocks, catch levels of the stocks in question are low (Table 8.2.1).

Table 8.2.1 - Derivation of the NOS for 2 hypothetical fleets A and B (all units are arbitrary)

Stock	F/F_{MSY}	Total catch (all fleets)	Catch fleet A	Catch fleet B	Catch proportion fleet A	Catch proportion fleet B	Count Fleet A	Count fleet B
cod	1.3	110	10	100	0.09	0.91	0	1
haddock	0.9	508	8	500	0.02	0.98	0	0
whiting	1.2	52	2	50	0.04	0.96	0	1
plaice	0.8	400	0	400	0.00	1.00	0	0
sole	1.1	50	0	50	0.00	1.00	0	1
NOS							LP	3

The above example results in NOS values of LP and 3 for fleets A and B respectively, indicating that fleet B plays a greater role than fleet A to the exploitation rates on stocks where F/F_{MSY} is greater than 1. Hence such an indicator is useful in that it can inform managers on which fleets might be suitable candidates for action in their quest to align their fleet capacity with available fishing opportunities.

The NOS indicator calculated at fleet segment level should be presented together with information on (1) the number of stocks exploited by the fleet segment, and (2) on the number of these stocks for which fishing mortality and/or biomass reference points are assessed at national and international level (i.e. by STECF or the relevant RFMOs).

Number of Stocks at Risk (NSR)

It is suggested to split the quantitative calculation of the SAR indicator based on Blim values (criterion a) from the qualitative estimation of the SAR indicator (based on

[7] The n% threshold is suggested as an arbitrary threshold aimed to eliminate fleet segments that catch very low levels of the stocks in question. N is expressed as 1 / Number of fleet segments, e.g. if the number of fleet segments is 100 the Threshold percentage would be 1%. If the number of fleet segments is 10, then the threshold would be 10%.

criteria b-d) in the future so the origin of the data behind SAR indicator values is clearer and the indicator is easier to interpret.

As is the case with the NOS indicator, the NSR calculated at fleet segment level should be presented together with information on (1) the number of stocks exploited by the fleet segment, and (2) on the number of these stocks for which fishing mortality and/or biomass reference points are assessed at national and international level.

An initial thought on the proposed NSR, is that a threshold needs to be established telling whether a fleet is considered to exploit the stock at risk, or it's catches of the stock are too minor to be considered. In the 2014 guidelines these threshold is a combination of two different factors: either the stock(s) at risk make up more than 10% of the catches of the fleet, or the fleet takes more than 10% of the catches of the stock. These two threshold criteria communicate different messages: 1) the fleet is responsible for a significant part of the removals of a stock at risk or 2) the fleet is dependent to a large extend on catches of stock that is at risk. However, the indicator value does not distinguish between these two different messages. A threshold for the new indicator should differentiate between these two different situations.

Economic Dependency Indicator (EDI)

The EDI essentially indicates what proportion of the landings value from a fleet segment is derived from stocks for which the ratio of F/F_{MSY} is greater than 1.0 (i.e. stocks that at a particular point in time are being fished at rates that are not consistent with MSY). A hypothetical example is given in the table 8.2.2.

Table 8.2.1 - Derivation of the EDI for 2 hypothetical fleets A and B (all units are arbitrary)

Stock	F/F_{MSY}	Total value of landings (all fleets)	Landings value fleet A	Landings value fleet B	Value proportion fleet A	Value proportion fleet B	**Value proportion Fleet A (Overharvested Stocks)**	**Value proportion Fleet B (Overharvested Stocks)**
cod	1.3	110	10	100	0.50*	0.09	0.50	0.09
haddock	0.9	508	8	500	0.40	0.45	NA	NA
whiting	1.2	52	2	50	0.10	0.05	0.10	0.05
plaice	0.8	400	0	400	0.00	0.36	NA	NA
sole	1.1	50	0	50	0.00	0.05	0.00	0.05
Total			20	1100	**EDI**		**60%**	**19%**

NA: Not Applicable because F/F_{MSY} is not greater than 1

* The value proportion of fleet A is 0.5 for cod since fleet A has a total catch value of 20 units, of which 10 units are cod.

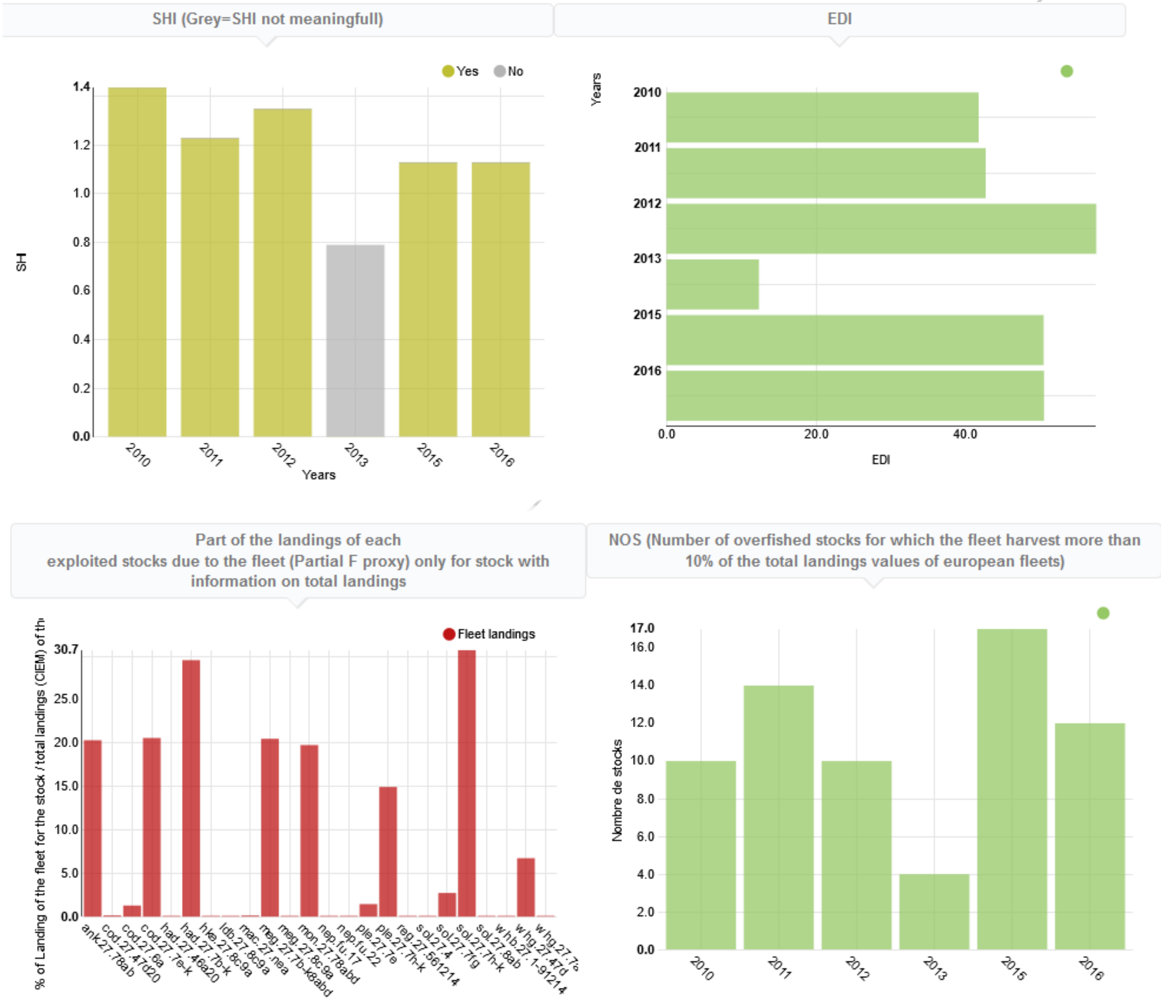
The EDI represents the cumulative proportion of the revenue from such stocks to that fleet segment. The indicator can be used to inform on how reliant a particular fleet segment is on the revenue obtained from stocks that are being exploited at a rate that is not consistent with MSY.

Fishing Partial Mortality

As mentioned in STECF-12-12 (Development of the Ecosystem Approach to Fisheries Management (EAFM) in European seas) another indicator complementary for the SHI and the EDI is the "partial F", contribution of the fleet to the fishing mortality of an assessed stock. This indicator is a measure of the impact of the fleet on a specific stock. It is based on the landings weight of each fleet compared with the total landings weight used for the stock assessment. This allows to better evaluate the impact of the fleet segment on the overall fishing mortality from the stocks; moreover this is particularly interesting in the case stocks which are shared with non EU countries.

<u>Examples of biological indicator outputs</u>

An example of how the combined use of the SHI, SAR, EDI, NOS and fishing partial mortality indicators could be used to assess the status of a particular fleet segment is summarized below. The approach is based on real calculation for a French fleet FRA-AREA27-DTS-VL2440. The SHI value for this fleet is around 1 but it is highly economically dependant of overfished stocks (50% of the values are issued from overfished stocks; Figure 8.2.1).



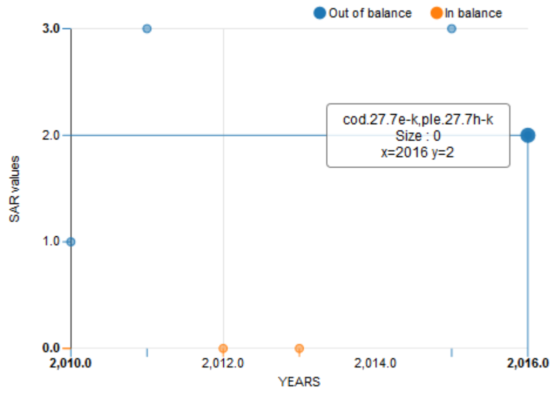


Figure 8.2.1 – Summary of biological indicators estimated for a sample fleet segment (FRA-AREA27-DTS-VL2440).

In the present case, the impact on overfished stock is important. For 6 stocks the partial mortality of the fleet is over 20%. It means that the fleet catches more than 20% of the total catches of 6 stocks that are overexploited. This result is in line with the NOS, which highlights that the fleet is a major contributor to the landings of 25 overfished stocks (more than 10% of the landings values). Partial F brings complementary information on % of impact of the fleet on the total landing weights. So a focus on these stocks should occurs in the action plan for this fleet.

The SAR indicator offers another dimension to the global overview of the fleet segment by highlighting 2 stocks listed at risk from independent scientific data. This gives an even stronger signal for the relevant Member State to pay attention to this fleet segment, and should prompt an action plan to mitigate impacts on the stocks of cod and plaice in the Celtic sea (Figure 8.2.1).

This first example shows how each indicator is in line with the other and how we can get a more precise diagnostic on a fleet.

A second example based on the spanish fleet ESP-AREA27-DFN-VL1218, highlights the complementary approach between quantitative indicators and qualitative (SAR).

The SHI seems to indicating an out of balance situation (1.5 in 2016), but the economic dependancy to overfished stock is just 20% and the impact of this fleet is just significant on one overfished stock of hake in area 27.8C and 9A (Figure 8.2.2).

The SAR indicator using qualitative advice on the stocks (i.e. based on criteria b-d in the 2014 Guidelines) highlights significant impacts of this fleet on several stocks at risk (guitarfishes, smooth lanternshark, velvetbelly, bullray and sawback angel shark).

Figure 8.2.1 – Summary of biological indicators estimated for a sample fleet segment (ESP-AREA27-DFN-VL1218).

STECF 18-14 notes that both EWG 15-02 and 15-15 did not have a specific ToR on the development of new indicators and consequently the current proposals for revised indicators should only be considered preliminary. EWG 18-14 carried out preliminary tests of the proposed new indicators (see section 8.3), but again only limited time was available since the EWG also had to address ToRs 1-5.

8.3 Preliminary test on candidate indicators

The EWG 18-14 is requested to propose and justify an improved suite of environmental (biological) indicators to aid the assessment of the balance between fleet capacity and fishing opportunities. Thus, a preliminary analysis to test new indicators proposed in the past has been carried out and the following descriptors were computed from the landings dataset provided by the JRC, for each year:

- **SAFE_Landings**, that is the total amount of landing for stocks NOT classified as "at risk", according to the 4 criteria defined for the SAR;
- **SAR_Landings** that is the total amount of landing for stocks classified as "at risk", according to the 4 criteria defined for the SAR;
- **NSR** = Num of stocks at risk exploited by each fleet segment;
- **N_SAFE_Stocks** = Number of stocks NOT at risk exploited by each fleet segment;
- **Heterogeneity** = Computed as 1-Gini index of stocks proportions in landings, devised to be a measure of the variability of landings composition for each fleet segment;
- **Fmean** = Mean value of the ratio F/F_{MSY} for the stocks exploited by each fleet segment;
- **Nvess** = Number of vessels in each fleet segment.

A subset of the input table for the following analisis is reported in Table 8.3.1.

Table 8.3.1 – Subset of input data used in the PCA.

Fleet Segment	SAFE_Landings	SAR_Landings	NRS(N_SAR_Stocks)	N_SAFE_Stocks	Targeting	Gear	Fmean	Nvess
BEL-AREA27-DTS-VL2440-NGI-2009	1842925	0	0	51	0	DTS	1	6
BEL-AREA27-PMP-VL1824-NGI-2009	541859	0	0	28	0	PMP	1	1
BEL-AREA27-TBB-VL1824-NGI-2009	3608731	0	0	41	0	TBB	1	35
BEL-AREA27-TBB-VL2440-NGI-2009	12633653	230909	1	60	0	TBB	1	40
BGR-AREA37-DFN-VL0006-NGI-2009	19741	0	0	8	1	DFN	2	243

These descriptors were used as input for a Principal Component Analysis (PCA). The main goal of PCA is to reduce the set of input variables into a smaller number (usually 2 or 3) of derived variables that may be readily visualised in planar space. These derived variables (the PCA axes) are devised to explain the maximum amount of variation in the data and could be interpreted as linear combination of the input descriptors. Hence, the relationship between the input descriptors and the PCA output variables can be visualized plotting the "effect" of the input descriptors as vector (arrows) on the PCA pattern.

The Figure 8.3.1 represents the output pattern of the PCA. The grey points representing the different fleet segments are distributed in the four quadrants around the origin. The first PCA axis explains 37% of the whole variability of the input data and allows distinguishing between highly productive fleet segments (characterized by high values of landings) exploiting large array of stocks (positive scores along the Dim 1) and fleet segments with low values of total annual landings, high mean level of exploitation and highly heterogeneity of landings species profile (negative scores along the Dim 1). The second PCA axis explains 15.1% of the whole variability of the input data and is associated to the descriptor "Year", which is oriented towards the bottom part of the plot.

Given that the arrow for the "Year" and those for NSR and landings for SAR species are oriented in the opposite directions, it is possible to conclude that this analysis detected an improvement of the exploitation pattern during the period 2009-2016. In practice, the number of fleet segments exploiting stocks at risk and the absolute amount of landings for these stocks was reduced during the last years. However, this analysis also evidences that a group of fleet segments (mainly represented by bottom otter trawlers, beam trawlers and pelagic trawlers) is associated to "critical" exploitation patterns: they are characterized by very variable pattern of catches, exploit a large array of stocks (most of which are classified as "at risk") and land high quantities of catches for both SAF and SAR stocks. These results stressed the well-acknowledge dependence between absolute impact and fishing techniques (Figure 8.3.2).

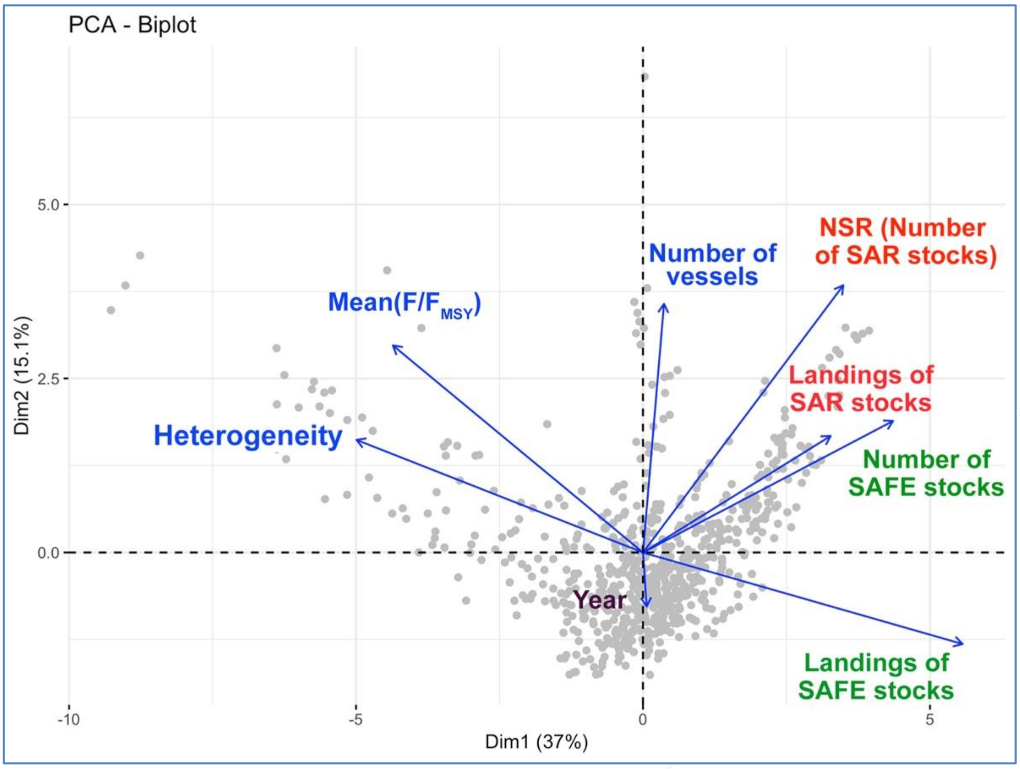


Figure 8.3.1 – Main patter for the Principal Component Analysis on the Landings data (years 2009-2016) provided by the JRC.

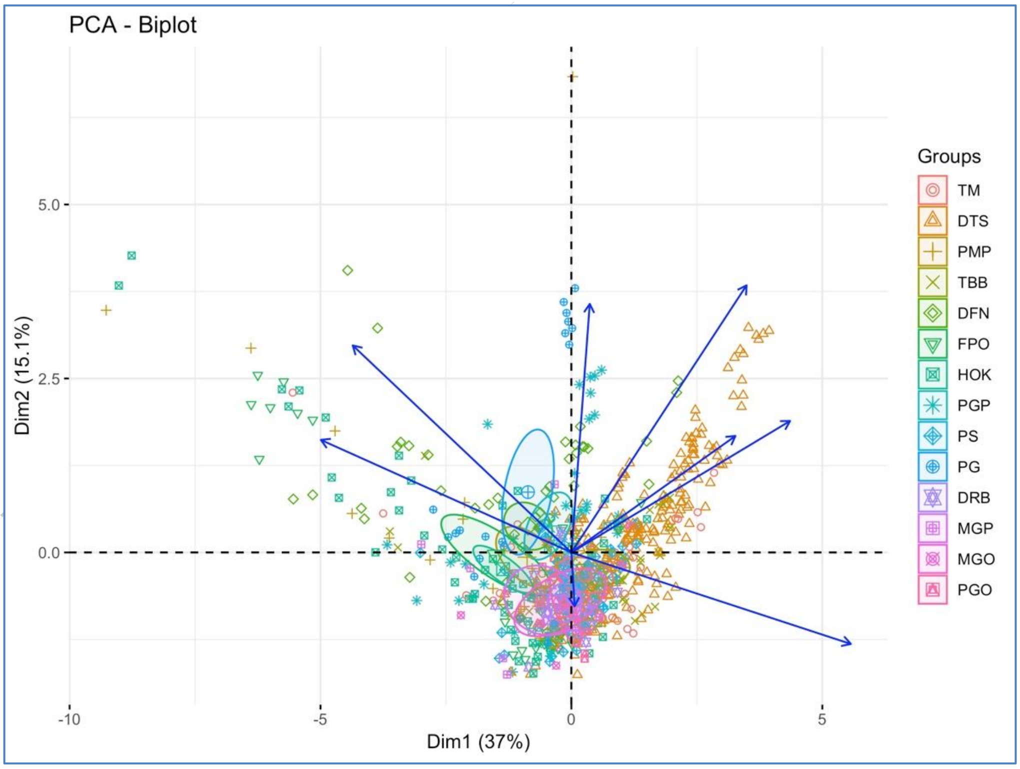


Figure 8.3.2 - Main patter for the Principal Component Analysis on the Landings data (years 2009-2016) in which the different fishing techniques are evidenced with different colours and symbols.

The relationship between the quantitative descriptors used in this analysis is also presented in Figure 8.3.3. Most of the descriptors are significantly correlated, as expected. As a general comment, the fishing techniques exploiting large arrays of stocks are also associated to high values of SAR stocks and SAR landings. In contrast, the mean F/F_{MSY} of exploited stocks is higher for fishing techniques associated with few stocks. In this way, a result of the analysis is that the indicators based on F/F_{MSY} and the ones based on SAR stocks should capture different aspects of the impact associated to the exploitation pattern.

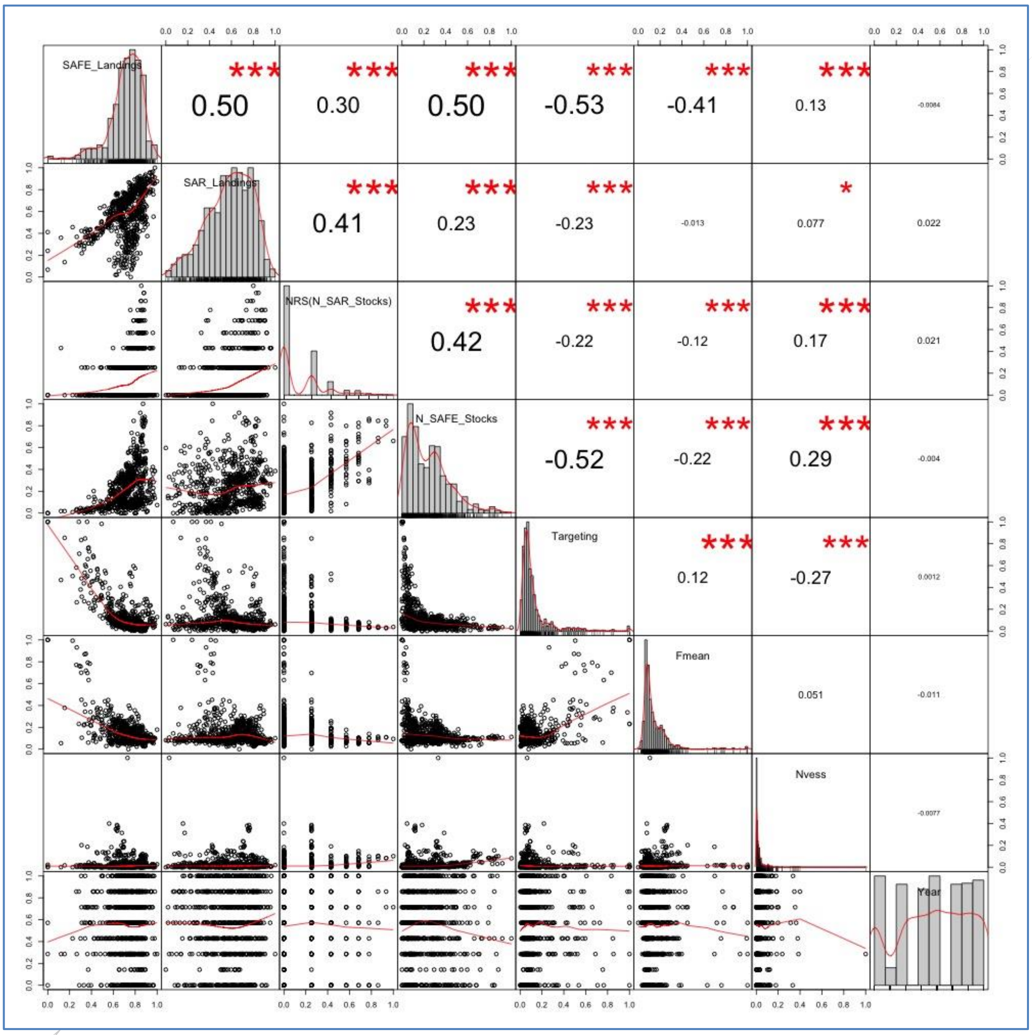


Figure 8.3.3 - Visualization of the Correlation Matrix between the set of descriptors computed on the landings data (years 2009-2016). The upper parts of the matrix shows the (absolute) value of the correlation plus the result of the correlation test as stars; at the bottom the bivariate scatterplots are presented with a fitted line.

8.3.1 Comparative Analysis of Indicators

An exercise was performed using the landings data for the year 2016. The full suite of "old" (SHI and SAR) and "new" (EDI, NOS, NSR1 [Quanti-SAR; based on SAR criterion a] and NSR2 [Quali-SAR; based on SAR criteria b-d]) indicators was computed.

The results were summarized as percentage of fleet segment out-of-balance by fishing technique, area and gear type. A preliminary analysis of the results (Figsures 8.3.4-5) shows that some of the indicators are strongly correlated. In fact, the “SAR-like” group (SAR, NSR1, NSR2 and NOS) show always significant and positive values of the Spearman’s correlation coefficient.

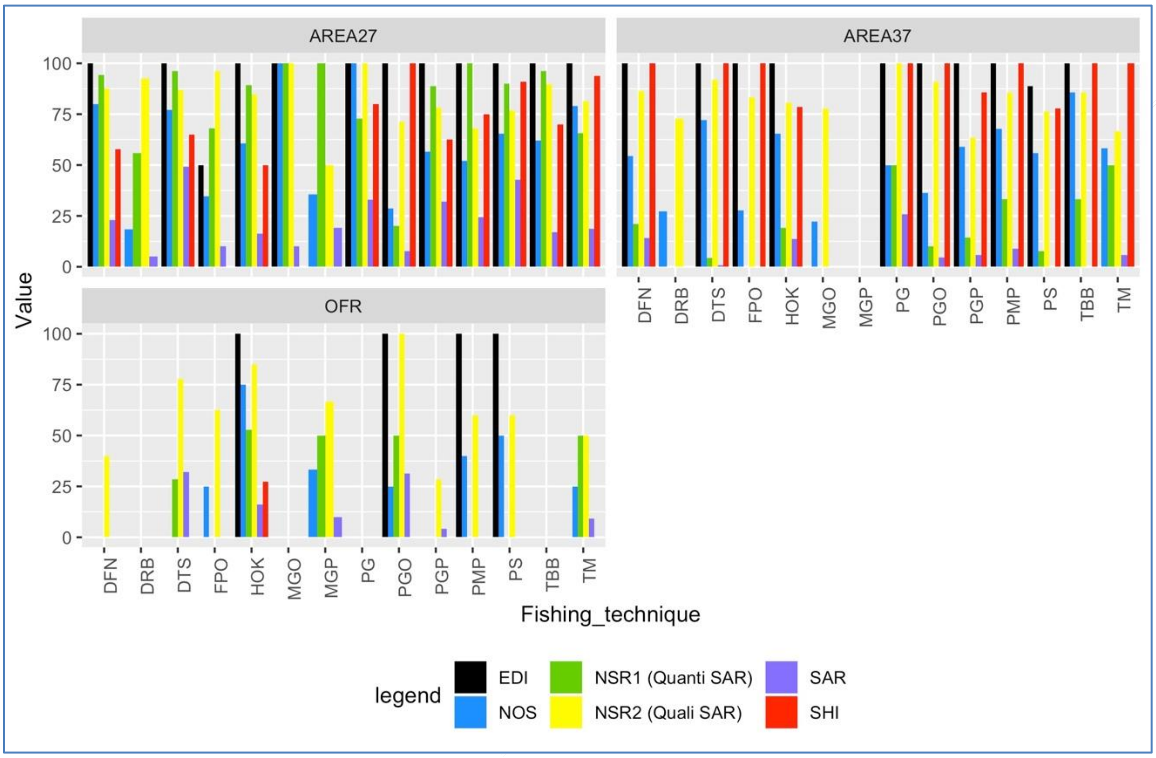


Figure 8.3.4 - Comparison between indicators: percentage of fleet segments out of balance (by area, for the year 2016) for the different indicators

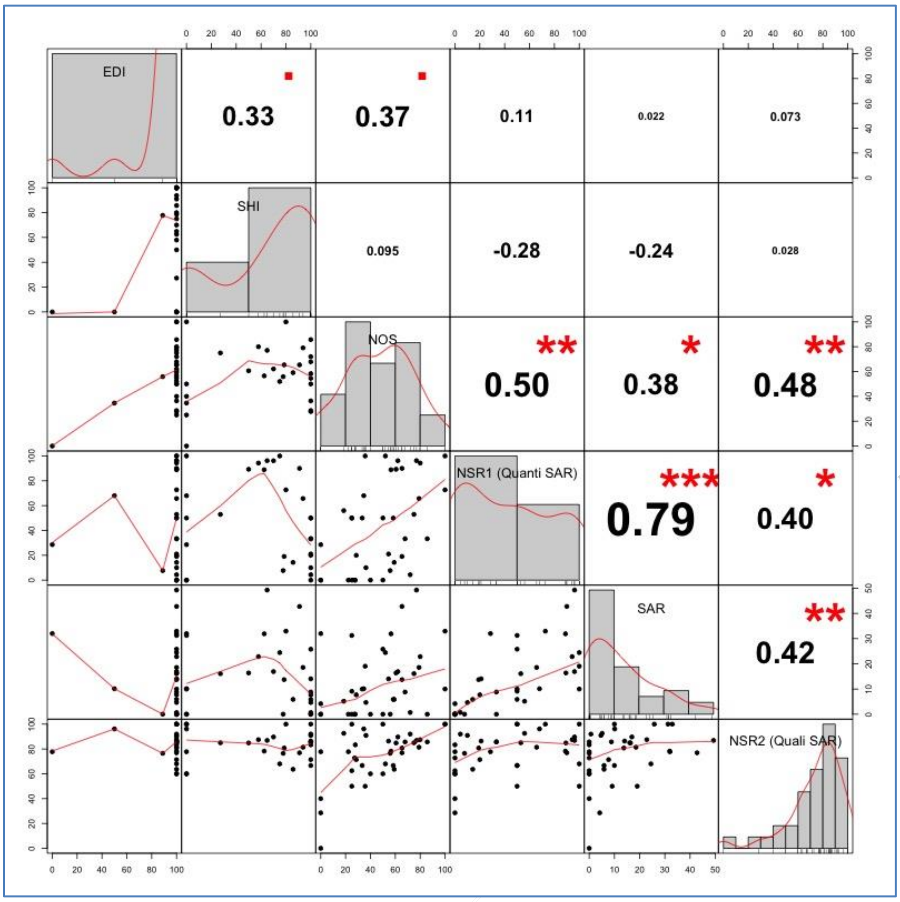


Figure 8.3.5 - Visualization of the correlation matrix between percentage of fleet segments out of balance (year 2016) for the different indicators. The upper parts of the matrix shows the (absolute) value of the correlation plus the result of the correlation test as stars; at the bottom the bivariate scatterplots are presented with a fitted line.

Hereafter the results are discussed in more detail by area.

Area27

NOS and SHI do not show any particular trend when compared between gear types. In some cases, NOS classifies more fleet segments to be out of balance than SHI for most of the active gears but the opposite occurs for most of the passive gears. EDI is a very conservative indicator as it classifies all the fleet segments to be out of balance. Both the Quanti-SAR and Quali-SAR are more conservative than the older version of the SAR as they classify most of the fleet segments to be out of balance. No significant correlations were found between the different indicators (Figures 8.3.6-7).

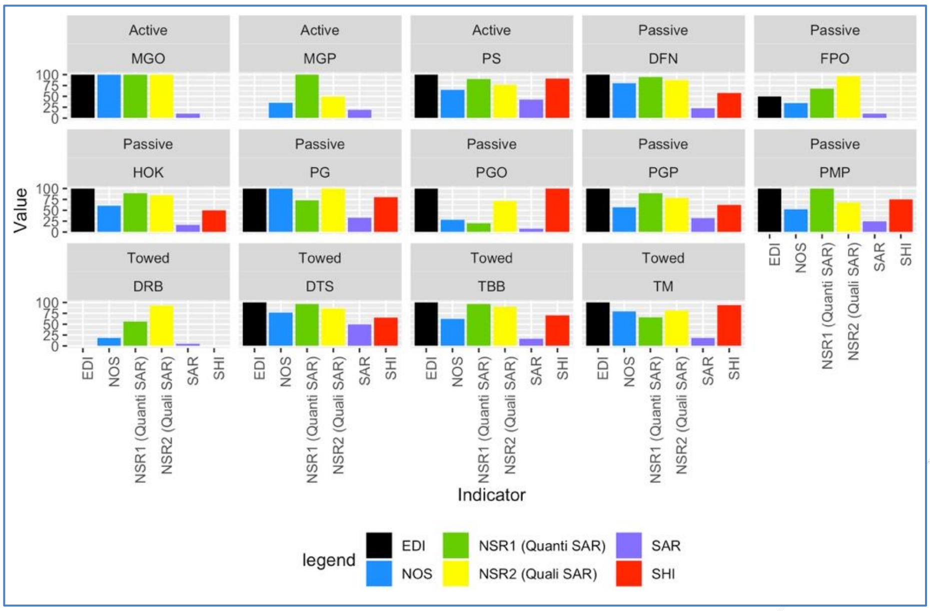


Figure 8.3.6 - Comparison between indicators for the AREA 27: percentage of fleet segments out of balance (by area, for the year 2016) for the different indicators.

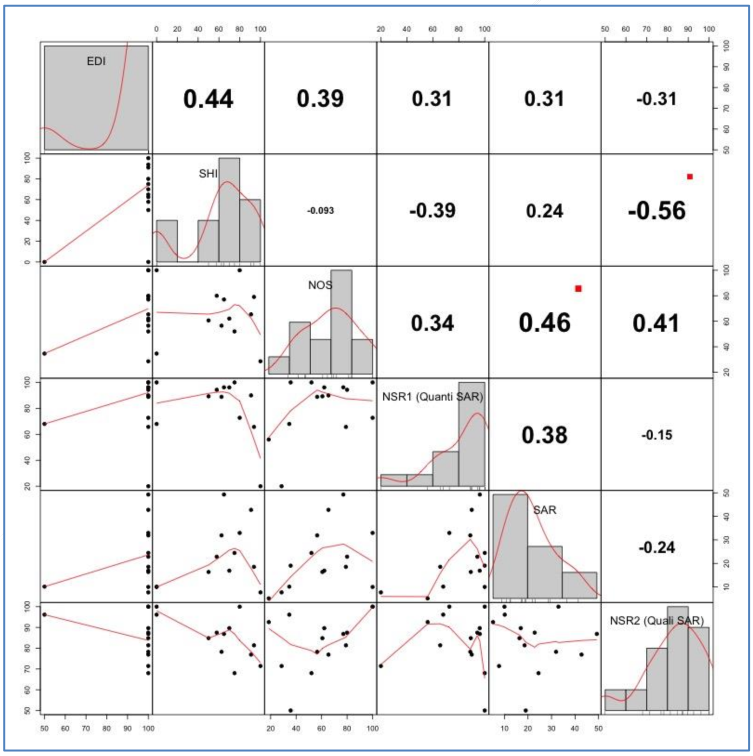


Figure 8.3.7 - Visualization of the correlation matrix between percentage of fleet segments out of balance (year 2016) for the different indicators (AREA27). On top the (absolute) value of the correlation plus the result of the correlation test as stars. On bottom, the bivariate scatterplots, with a fitted line is presented.

Area37

The SHI classifies most of the fleet segments to be out of balance irrespective of the gear type when compared to NOS. EDI is a very conservative indicator as it classifies all fleet segments to be out of balance. Both the Quanti-SAR and Quali-SAR are more conservative than the older version of the SAR as they classify most of the fleet segments to be out of balance. As expected, Quanti-SAR and SAR are significantly positively correlated as well as EDI and SHI and SHI and Quali SAR (Figures 8.3.8-9).

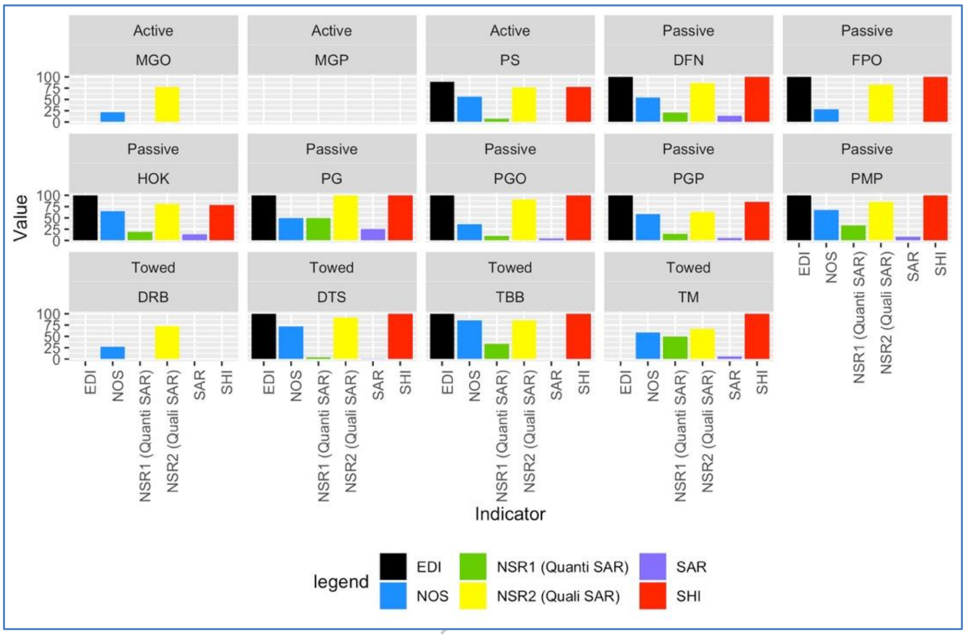


Figure 8.3.8 - Comparison between indicators for the AREA 37: percentage of fleet segments out of balance (by area, for the year 2016) for the different indicators

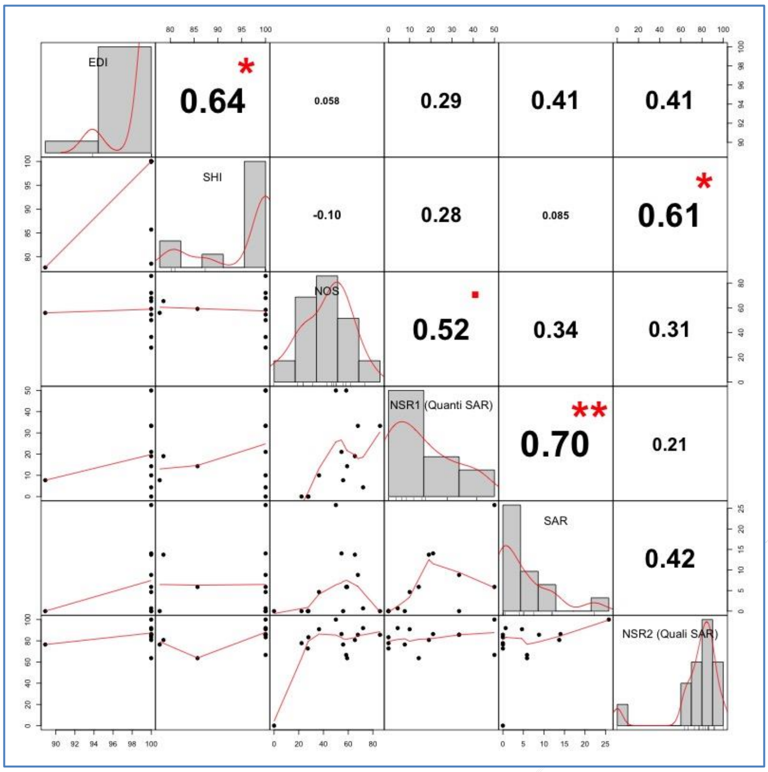


Figure 8.3.9 - Visualization of the correlation matrix between percentage of fleet segments out of balance (year 2016) for the different indicators (AREA37). On top the (absolute) value of the correlation plus the result of the correlation test as stars. On bottom, the bivariate scatterplots, with a fitted line

<u>OFR</u>

Data available for this region are scarce and thus the classification was possible only for few of the gear types. In general, NOS do classify most of the fleet segments to be out of balance irrespective of the gear type when compared to SHI. EDI is a very conservative indicator as it classifies all fleet segments to be out of balance. With the exception of DTS, both the Quanti-SAR and Quali-SAR are more conservative than the older version of the SAR as they classify most of the fleet segments to be out of balance. As expected, Quanti SAR and SAR are significantly positively correlated as well as Quanti-SAR and Quali-SAR and Quali-SAR and SAR (Figures 8.3.10-11).

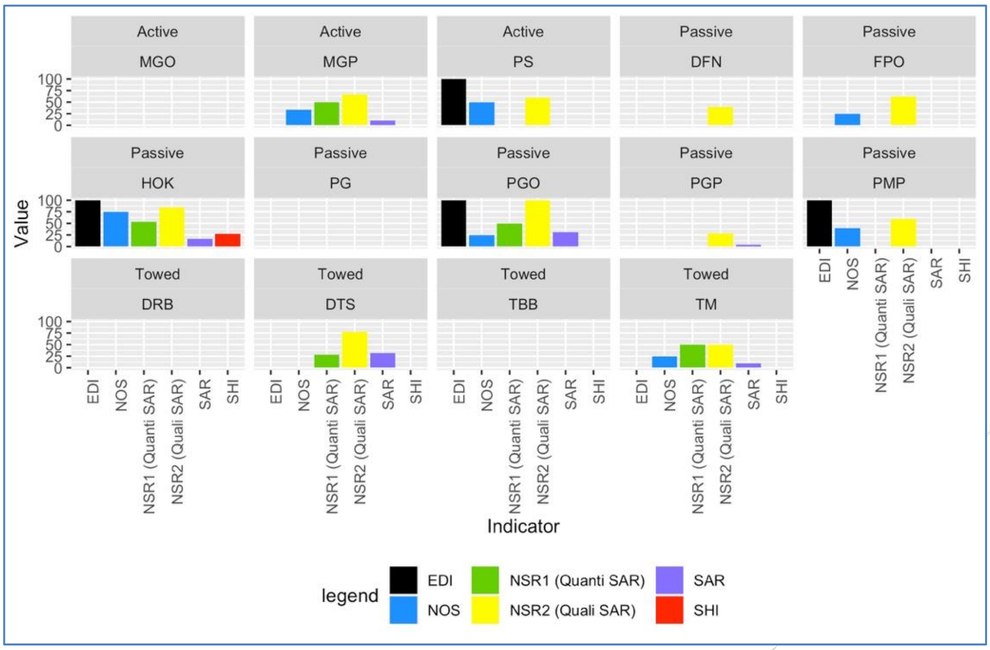


Figure 8.3.10 - Comparison between indicators for the OFR: percentage of fleet segments out of balance (by area, for the year 2016) for the different indicators.

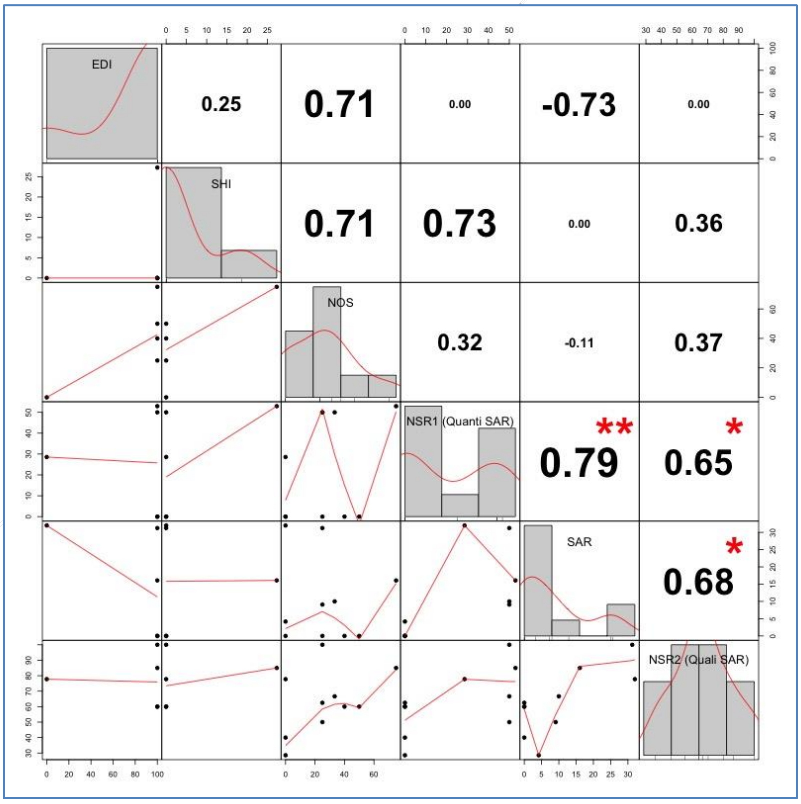


Figure 8.3.11 - Visualization of the correlation matrix between percentage of fleet segments out of balance (year 2016) for the different indicators (OFR). On top the (absolute) value of the correlation plus the result of the correlation test as stars. On bottom, the bivariate scatterplots, with a fitted line is presented.

8.3.2 Conclusions on preliminary analyses of candidate biolocial indicators

On the basis of the preliminary analysis and the comparative exercise performed, the EWG 18-14 concluded that:

1. Each indicator is characterized by both advantage and drawbacks, which are strongly linked to the typologies (and quality) of primary input data provided by the MS for the different areas, and the stock status metadata and results available for the different exploited species;
2. Some indicators are characterized by similar behaviour: they classified as out-of-balance the same proportion of fleet segments in the same areas. In this way, there is a certain degree of redundancy within the suite of indicators;
3. The SHI and SAR indicators show a significant improvement in the quantitative impacts on stocks-at-risk and F/F_{MSY} ratio is detectable in the period 2009-2016;
4. The combined application of a suite of indicators, instead of an evaluation based on one or two indicators should be considered as a reliable approach to guarantee a sound assessment of the status of the different fleet segments.

8.4 General reflections on way forward

Under the CFP, MS are required to report annually on their efforts to achieve a balance between fleet capacity and fishing opportunities. In the guidelines (COM (2014) 545 final), a number of indicators are prescribed to assess balance for different fleet segments.

Such indicators, while potentially useful for monitoring certain statistics, do not specifically address balance/capacity; they simply indicate what they indicate i.e. that something may be worth investigating further. As such, they are tools to inform, nothing more.

We suggest that assessing the balance between fleet capacity and fishing opportunities can best be described at the fishery level. Furthermore, we suggest that we should think of fleet capacity in terms of fishing capacity i.e. the ability of a fleet to catch fish, rather than a measure of physical capacity (kW and/or GT). We also need to define what we mean by fishery and suggest that a fishery is that combination of fishing fleets or fleet segments that exploit a stock or group of stocks. Hence, the fishing capacity of a fishery can be considered in balance with fishing opportunities (FO), if cumulatively, all participants in the fishery are able to take whatever fishing opportunity is available to them, be it a TAC, an effort regime or other opportunity. Of course, the FO may be undershot or exceeded and in such cases, the capacity of the fishery would be considered to be out of balance with its fishing opportunity. We suggest that if the FO is not taken up, there is imbalance and if the FO is exceeded there is imbalance. Abiding by the Precautionary Principle, the fishing capacity in a fishery could simply be considered to be sustainably in balance with fishing opportunities provided that the FO is not exceeded.

Adopting the approach outlined above implies that an individual vessel, fleet or fleet segment cannot be assessed as out of balance because it is only a partial contributor to achieving balance. Hence the biological indicators (SAR and SHI) currently prescribed for Member States to use in their annual fleet reports by fleet segment are not indicators of balance between fishing capacity of a fleet segment and its fishing opportunities. They simply indicate what they are intended to indicate and the resulting values for both indicators are primarily driven by the fishing opportunities that are set for the stocks that they exploit.

Similarly, the economic indicators simply give an indication of economic performance of a fleet segment or segments at a particular point in time. While fleet-segment specific economic performance indicators do not give any indication of whether that segment is in balance with its fishing opportunities, they can be used to infer something with regard to capitalization. Poor economic performance may indicate over capitalisation of a fleet segment. We therefore suggest that the concept of the balance between fleet capacity and fishing opportunities is re-aligned as indicated above and that in future, segment-specific indicators are abandoned as indicators of balance. We suggest that such indicators can be useful to Member States to identify those segments that are reliant on overfished stocks and to ascertain the economic performance of their fleet segments. Such information is potentially useful to Member States to help with national fleet management and to assess whether a fishing unit is achieving particular economic objectives given the prevailing status of the resources.

The EWG is requested to propose and justify an improved set of biological indicators. However, the general problem remains that the application of the set of indicators does still not sufficiently answer the question of balance.

The figure 8.4.1 illustrates a simplified model of the long term equilibrium of a fishery in terms of fishing opportunity (yield) and costs relating to fishing capacity. Balance can be equated to any point on the Total revenue (TR) curve. In situations where a fishery is not managed the system moves toward the point where total revenue and total costs (TC) meet, the open-access equilibrium (EOA). As total revenue and total cost are equal this means that no resource rent is generated due to the inefficient utilisation of the factors of production (resource, labour, capital) as less effort (and costs) could be expended to catch the same or more. If effort and fishing capacity is reduced in the fishery the system can be moved toward the apex of the TR curve where landings and revenue are maximised, the maximum sustainable yield (EMSY) with positive resource rent if the fleet is efficient. By reducing effort even more to the point of greatest distance between TR and TC the resource rent of the fishery is maximised, the maximum economic yield (EMEY). The TC curve may be higher or lower depending on the size and structure of the fleet.

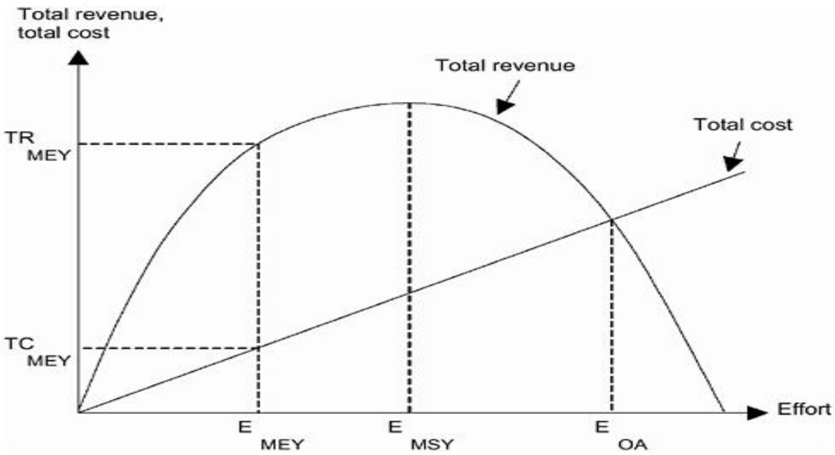


Figure 8.4.1 - Relationships among fishing effort, cost and revenue. Source: Dietz et al. 2002[8]

EU objectives are to maintain and restore fish stocks to the level of biomass that can deliver the maximum sustainable yield and this is to be achieved by fishing at a rate corresponding to F_{MSY}. Member states are in control of the total costs of the fleet and the distribution of their national quota. National managers can decide what the long-term objectives of the national management system are and decide where on the total cost curve they are aiming to situate their fleets. Some member states may prioritise maximising landings (E_{MSY}) while others may prioritise moving towards maximising profits (E_{MEY}).

Future balance guidelines could plot where each EU fleet is on the production curve to inform national managers of the state of the fishing fleet and their progress towards their own long-term objectives. Knowing the long term objective of each fleet that is in line with the overall EU objective of F_{MSY} would then allow assessment of progress towards these goals. Indicators that take into account not only the latest year of data but also previous years must be used to assess progress as short-term events can occur in any year that could significantly affect profitability. Fishing capacity requires assessment at the fishery level so the impact of all fleets is accounted for. Knowing the long-term objective of each MS allows estimation of the future fleet required to reach that point and the necessary investment (in capacity or resource) to achieve balance.

In addition, as the elaboration of new biological indicators revealed, the justification of the application of new indicators needs a more thorough analysis of the available data and testing of the indicator values. The general approach described here uses a simplified example of a single stock/fishery. The reality in EU fisheries is clearly more complicated due to mixed fisheries and shared stocks and so will require significant planning and resources to define suitable and adequate methodologies to apply coherently. It is felt however that this approach would add considerable value to the all stakeholders in this process.

8.5 Concluding Remarks for TOR 6

EWG 18-14 concludes that over the years alternative biological indicators where proposed but not thoroughly tested. For the justification of the introduction of new indictors to replace or integrate the current ones a deeper analysis and testing of the new indicators is necessary. This analysis and testing is only possible in a dedicated EWG which will be required to assess and compare of currently used and newly proposed indicators towards given criteria e.g. robustness, sensitivity, easy and unambiguous calculation. A suitable approach could be to test the indicators for several hypothetical model fleet segments as well as for typical situations in Area 27, Area 37 and OFR to ensure the robustness of the indicators in light of the data available. EWG 18-14 notes that without a deep and roboust analysis on candidate indicators it might be confusing for MS to apply new/revised indicators in the fleet report for 2019.

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[8] Dietz T. , Dolŝak N. , Ostrom E. , Stern P. C. . Ostrom E. , Dietz T. , Dolŝak N. , Stern P. C. , Stonich S. , Weber E. U. The drama of the commons , The Drama of the Commons , 2002 Washington, DC National Academy Press (pg. 3 -35).

9 REMARKS ON ECONOMIC AND CANDIDATE SOCIAL INDICATORS

EWG 18-14 decided also to have a look at the economic indicators and provide information on possible improvements and additional indicators. So far, the economic indicators cover the employment of capital and not consider labour productivity and natural resources as basis of production. Also, the EWG 18-14 discussed about the opportunity to include new social indicators. Both are discussed in the following paragraps.

9.1 Current economic and indicators in the guidelines

The current guidelines have not been updated since 2014 and are not defined in the exact same way as the same indicators used in the Annual Economic Report (AER). We suggest to update the current indicators to be in line with the definitions of the indicators in the AER.

9.1.1 Return on Investment (RoI)[9]

Two indicators are used to evaluate whether fleet segments are economically sustainable in the long term (allowing capital investments) and to be able to cover their costs in the short term.

The indicator compares the long-term profitability of the fishing fleet segment to other available investments. If this value is smaller than the low-risk long term interest rates available elsewhere, then this suggests that the fleet segment may be overcapitalised.

Threshold: If the return on investment (RoI) is less than zero and less than the best available long-term risk-free interest rate, this is an indication of long-term economic inefficiency that could indicate the existence of an imbalance.

<u>Definition current guidelines (not in line with AER)</u>

The suggested calculation method is as follows:

ROI = Net profit / (fleet depreciated replacement value + estimated value of fishing rights)

Where:

Net profit = (Income from landings + other income + income from fishing rights) – (crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs + non variable costs + fishing rights costs + annual depreciation)

<u>Proposed change for new guidelines (in line with AER)</u>

RoI = (net profit + opportunity cost of capital) / capital asset value

Where net profit is calculated as:

[9] ROFTA (Return on Fixed Tangible Assets) is often applied as an alternative to RoI. If RoI or ROFTA is not reliable, net profit can also be used as an alternative – see below.

Net Profit = Income from landings + other income + income from fishing rights – crew costs – unpaid labour - energy costs – repair costs – other variable costs – non variable costs – fishing rights costs – depreciation cost – opportunity cost of capital

And capital asset value as:

Capital asset value = vessel depreciated replacement value + estimated value of fishing rights.

Opportunity costs must be defined clearly. The guidelines refer to the 'low risk long term interest rate'. However, the STECF balance report recognises that the 'low risk long term interest rate' which would formerly have been the ECB rate has fluctuated wildly during the years of the economic crisis and so has suggested using a 5-year average of the interest rate. The AER uses real interest rate.

9.1.2 Return on Fixed Tangible Assets (RoFTA)

Definition current guidelines (not in line with AER)

RoFTA: Net profit / (fleet depreciated replacement value);

where

Net profit = (Income from landings + other income) - (crew wage + unpaid labour + energy + repair + other variable costs + non variable costs + annual depreciation)

Proposed change for new guidelines (in line with AER)

RoFTA = (net profit + opportunity cost of capital) / tangible asset value (vessel depreciated replacement value)

*Net profit = (Income from landings + other income) - (crew wage + unpaid labour + energy + repair + other variable costs + non variable costs + annual d*eprecation + *opportunity cost of capital*)

9.1.3 Current revenue to break-even revenue (CR/BER)

The second indicator is the ratio between current revenue and break-even revenue. This measures the economic capability of the fleet segment to keep fishing on a day-by-day basis: does income cover the pay for the crew and the fuel and running costs for the vessel? If not, there may be an imbalance.

Threshold: If the ratio between current revenue and break-even revenue is less than one, this is an indication of short-term economic inefficiency that could indicate the existence of an imbalance.

Definition current guidelines (not in line with AER)

CR/BER: Current revenue (CR) / Break Even Revenue (BER), where,

CR = income from landings + other income

where,

BER = non variable costs + annual depreciation / (1-[variable costs / current revenue])

and

Variable costs = crew wage + unpaid labour + energy costs + repair costs + other variable costs

<u>Proposed change for new guidelines (in line with AER)</u>

CR/BER = revenue / break-even revenue = Income from landings + other income / BER

where

BER = (Fixed costs + opportunity costs of capital +depreciation) / (1-(crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs)/Revenue)

9.2 Candidate new economic indicators

So far, the economic indicators just cover the use of capital in the fishery. Currently, there are no indicators that consider the other two factors of production, i.e. **labour and natural resources**. STECF therefore advises that at least one economic indicator that is independent of the capital value, and covers at least one of the other production factors (such as GVA per FTE) should be considered for inclusion in future balance assessments (see STECF 2015).

9.2.1 Labour

EWG 18-14 discussed the inclusion of a labour productivity indicator GVA/FTE or NVA/FTE.

GVA = Landings Income + Other Income – energy costs – Repair and maintenance costs – Other variable costs – Non-variable costs

NVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs – ***depreciation cost***

These definitions differ regarding the inclusion of depreciation, which follows from the applied capital value for a fleet segment. We are aware that the standard income approach to measuring labour productivity in most industries relies on ratios based on GVA and to follow this would offer some inter-industry comparison with fisheries.

EWG 18-14 discussed the pros and cons of including a labour indicator and what definition and reference points should be applied (see EWG conclusions below). NVA/FTE was originally discussed as a social indicator, appropriate for use in this balance excercise as by definition it measures how much income is generated to those involved in fisheries (crew, skipper owner and investor/financier). Therefore, it is better indicator on the social dimension than GVA/FTE as there is no consumed and wasted capital included.

9.2.2 Natural Resource Productivity

There are no indicators so far addressing natural resources as basis for economic performance of the vessel and following from that indication of imbalance in a fleet segment. It could represent also a link between the situation of stocks and the economic performance of a vessel/fleet segment. EWG 18-14 has not discussed possible indicators but suggest elaborating whether the proposed new indicator EDI could partly cover the link of natural resources to economic performance. Another possibility could be net profit margin as an indication for the resource rent.

Definition of 'Net profit margin' from the AER (STECF 2018 p. 544): Economic profit margin - a measure of profitability after all costs has been accounted for, and reflects the percentage of revenue that a sector retains as profit. It measures the relative performance of the sector compared to other activities in the economy and provides an indication of the sector's operating efficiency as it captures the amount of surplus generated per unit of production.

9.3 Candidate new social indicators

The European Commission decided in 2014 not to include social indicators into the 'Balance Indicator Guidelines'. In the report proposing possible indicators for inclusion in the fleet reports, STECF suggested two social indicators (STECF 2008 (pp. 24 f.): Gross Value Added (GVA) and Average wage per FTE.

9.3.1 Net Value Added (NVA)

NVA is defined as gross output minus intermediate consumption. It is the sum of contributions from the factors of production (i.e. the resource, real capital and labour). When data is available, NVA is simple to calculate and gives an indication of whether rents are extracted from the resource or not, by comparing each of the contributions from the factors of production to contributions from similar factors of production in other sectors. One way to do this could be to compare NVA per Full Time Employee (FTE) to GDP per Capita.

Gross Value Added (NVA) is calculated as:

NVA = Landings Income + Other Income – energy costs – Repair and maintenance costs – Other variable costs – Non-variable costs – depreciation cost

EWG 18-14 had no time to elaborate the usefulness of NVA or NVA/FTE as a social indicator. NVA is a relatively general indicator as, for example, size of crew share, interest paid etc. are not evaluated, it is only the sum of these that is reported. Therefore, caution is crucial when assessing the level of NVA. Another drawback of the use of NVA is that no evaluation of the state of the resource is provided.

As a result, NVA can be positive and supply considerable crew wages and profits before interest and tax when the status of the fish stock/fishery resource is simultaneously in a poor, unsustainable state.

9.3.2 Average wage per FTE

Average crew wages per FTE is calculated as:

Crew share / FTE

The comparability of “crew wage per FTE” with wages rates in other sectors is an attractive strength of this indicator when considering the ‘balance’ question. In addition, the indicator can supplement the GVA indicator to facilitate an assessment of the remuneration of labour. However, there are also limits to this indicator, as, for example, the structure of the workforce is not taken into account.

9.4 Concluding remarks

EWG 18-14 concludes that the definitions for the economic indicators RoI (or RoFTA) and CR/BER should be modified for the new guidelines to harmonise the definition with the AER. For the consideration of additional indicators to assess labour and natural resource productivity, the proposed indicators need to be tested and elaborated if they would add substantial information to the question of balance.

EWG 18-14 concludes that in case of considering the inclusion of social indicators into the fleet reports the indictor should also be tested for a few countries to assess the usefulness of it.

EWG 18-14 concludes that this can best be done by a dedicated EWG for discussion of new/revised indicators in 2019.

10 CONTACT DETAILS OF STECF MEMBERS AND EWG 18-14 PARTICIPANTS

Information on STECF members and invited experts' affiliations is displayed for information only. In any case, Members of the STECF, invited experts, and JRC experts shall act independently. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: http://stecf.jrc.ec.europa.eu/adm-declarations

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11 LIST OF ANNEXES

- ANNEX I - SUMMARY OF INDICATOR ISSUES AND ASSOCIATED COMMENTS AND PROPOSALS EVIDENCED IN THE EWG 16-09
- ANNEX II – PERCENTAGE OF TOTAL LANDINGS DATA (VALUES) SUBMITTED BY MEMBER STATES FOR WHICH ONLY INFORMATION FOR AGGREGATED SPECIES GROUPS IS AVAILABLE IN 2016
- ANNEX III – COMPLIMENTARY DATA FOR THE SUSTAINABLE HARVEST INDICATOR
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Electronic annexes are published on the meeting's web site on:
https://stecf.jrc.ec.europa.eu/ewg1814

List of electronic annexes documents:

1. EWG—18-14– Balance Capacity Tables

12 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:
https://stecf.jrc.ec.europa.eu/ewg1814

List of background documents:

1. EWG-18-14 – Doc 1 - Declarations of invited and JRC experts (see also section 7 of this report – List of participants)
2. COM(2014) 545 final – Doc 2 - Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy.

The following STECF reports used as background documents can be found on:
http://stecf.jrc.ec.europa.eu/reports/balance

1. 2017-10_STECF 17-08 – Balance capacity_XXXXXX.pdf
2. 2016-10_STECF 16-09 - Balance capacity_XXXXXXX.pdf
3. 2015-10_STECF 15-15 - Balance capacity_JRC97991.pdf
4. 2015-10_EWG 15-17 - SHI supplementary data.xlsx
5. 2015-10_EWG 15-17 - Balance Indicators by Fleet Segments.xlsx
6. 2015-02_STECF 15-02 - Balance capacity_JRC94933.pdf
7. 2015-02_STECF 15-02 - Balance capacity all tables.xlsx
8. 2014-06_STECF 14-09 - Balance indicators_JRC90403.pdf
9. 2014-06_STECF 14-09 - Balance indicators_all tables_JRC90403.zip
10. 2013-11_STECF 13-28 - Balance capacity_JRC86350.pdf
11. 2013-04_STECF 13-08 - Balance indicators_JRC81659.pdf

12.2012-11_STECF 12-18 Balance capacity_ JRC76704.pdf
13.2011-11_STECF11-17- Balance capacity and fishing opportunities_JRC67795.pdf
14.10-09_SG-BRE 10-01 - Fleet capacity and fishing opportunities _JRC61983.pdf

13 ANNEX I - SUMMARY OF INDICATOR ISSUES AND ASSOCIATED COMMENTS AND PROPOSALS EVIDENCED IN THE EWG 16-09

Sustainable Harvest Indicator (SHI)	**Issues**	**Comments**
Sustainable harvest indicator (SHI)	1. The indicator guidelines state that an SHI value above one could be an indication of imbalance if it has occurred for three consecutive years. This criterion may be interpreted as not being in line with the CFP, where it is stated: "*The maximum sustainable yield exploitation rate shall be achieved by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks*." Therefore, before 2020 an SHI indicator above 1 may reflect the outcome of political decisions to reach F_{MSY} not immediately, but by 2020.	1. Issue cannot be addressed without changing the guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	2. Proposals for fishery management plans in the ICES area are currently taking into account F_{MSY} ranges; it is thus likely that F_{MSY} ranges which will serve as the basis for future management. SHI calculations are at present based on point estimates of F_{MSY}. SHI calculations could in future be revised to reflect the use of F_{MSY} ranges in management plans, a scenario for which the guidelines state: '*Where Fmsy is defined as a range, exceeding the upper end of the range is*	2. EWG 16-09 indicator preparatory meeting looked into this issue and concluded that F_{MSY} ranges had not been adopted as the basis for management for any stocks in the ICES area by the 30th June 2016 (the cut-off date for the inclusion of new data the EWG 16-09 indicator preparatory meeting worked with).

	interpreted as "overfishing"'. It follows that if F_{MSY} ranges instead of point estimates are used, this will have a substantial impact on SHI values because the upper limit of the F_{MSY} range is often considerably higher than the F_{MSY} point estimate.	
	3. The SHI may deliver a value of more than 1 for fleet segments which are not overcapacity with regards to their short term legally permitted harvest opportunities, i.e. fishing opportunities based on short term TACs.	3. Issue cannot be addressed without changing guidelines EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	4. The SHI, used in isolation to assess whether a particular fleet segment is in balance with its fishing opportunities could be misleading because it does not provide results about the extent to which a fleet segment relied on over-harvested stocks and secondly, does not provide any indication as to the overall contribution a fleet segment makes to the overall catch from an over-harvested stock.	4. Issue considered in STECF 15-15 (section 3.8 – 'Proposed Biological Indicators and Evaluation Tool'); STECF 15-15 proposal cannot be implemented without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	5. The SHI may deliver a value of less than 1 for fleet segments which partly rely on individual stocks harvested at rates above $F_{MSY.}$	5. Issue considered in STECF 15-15 (section 3.8 – 'Proposed Biological Indicators and Evaluation Tool'); STECF 15-15 proposal cannot be implemented without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	6. The SHI may flag problems with a certain fleet segment despite the fact that the main problem lies with another fleet segment, which in turn may not necessarily be flagged.	6. Issue considered in STECF 15-15 (section 3.8 – 'Proposed Biological Indicators and Evaluation Tool'); STECF 15-15 proposal cannot be implemented without changing guidelines. EWG 16-09 reaffirms the need for

		a dedicated EWG to revise indicator guidelines.
	7. SHI values calculated for different fleet segments may not be comparable. Small vessels in particular frequently harvest only a low number of stocks, leading to a high SHI when one of these stocks is overharvested. Fleet segments with larger vessels on the other hand generally fish more stocks in different areas. Therefore, their SHI is less sensitive to the overexploitation of particular stocks, and problems may be masked.	7. Issue considered in STECF 15-15 (section 3.8 – 'Proposed Biological Indicators and Evaluation Tool'); STECF 15-15 proposal cannot be implemented without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
Stocks at Risk (SAR)	1. According to the 2014 indicator guidelines (COM(2014) 545 final), 'if a fleet segment takes more than 10% of its catches from a stock which is at risk, this could be treated as an indicator of imbalance'. The Expert Group considers that this is not necessarily true, but it can be used to indicate that a fleet segment may be worthy of further investigation to determine whether it is not in balance with its fishing opportunities.	1. Issue cannot be addressed without changing guidelines EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	2. The indicator guidelines state that B_{lim} should be taken as threshold below which stocks are counted as stocks at risk. The definition in the CFP in Article 4 (18) for "inside safe biological limits" is: "*Stock within safe biological limits' means a stock with a high probability that its estimated spawning biomass at the end of the previous year is higher than the limit biomass reference point (*B_{lim}*)*". However, to monitor the performance	2. Issue cannot be addressed without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.

	of the common fisheries policy (see Article 50 of 1380/2013) the Commission has defined "outside safe biological limits" as SSB less than B_{pa} (where B_{pa} is defined), OR F is greater than F_{pa} (where F_{pa} is defined)10. To take the deterministic or median assessment values for SSB and contrast them with the Blim reference point may be inconsistent with the criteria of "high probability" and the definition used to monitor the CFP. B_{pa} could be seen as more appropriate threshold since B_{pa} is the SSB that gives a high probability to be above B_{lim} given the uncertainties in stock assessments in the terminal year.	
	3. The current 10% threshold is arbitrary and has not been tested. A sensitivity analysis, using different percentage thresholds as a cut-off point in order to investigate the impact of different thresholds needs to be undertaken. In addition, currently only landings from EU fleets are used to calculate whether the landings of a certain fleet segment comprise more than 10% of the overall landings. The impact of EU fleets on stocks that are shared with non-EU countries may therefore be overestimated.	3. The EWG 16-09 indicator preparatory meeting discussed the possibility of testing threshold using new R code, and providing EWG 16-09 SAR indicators based on e.g. 3 different thresholds. Ultimately this issue can only be addressed by changing the guidelines. EWG 16-09 supports the proposal for a database which contains all data and information required for calculation of biological indicators (including catch data from non-EU countries), and which is updated every year (see section 3.5.1.3, STECF 15-15).
	4. With the exception of stocks assessed as	4. EWG 16-09 indicator preparatory meeting

[10] Scientific, Technical and Economic Committee for Fisheries (STECF) – Monitoring the performance of the Common Fisheries Policy (STECF-15-04). 2015. Publications Office of the European Union, Luxembourg, EUR XXXX EN, JRC XXXX, 147 pp.

	being below the B_{lim} biological level, identifying and categorizing 'stocks at risk' is subjective due to a range of terminology used in stock advice. The Expert Group suggests in future to provide two versions of the SAR; one based on B_{lim} values (criterion a) and a second based on criteria b-d given in the Guidelines (COM (2014) 545 FINAL).	discussed this issue, in particular with regards to the interpretation of criterion b for Mediterranean stocks. Ultimately this issue cannot be addressed without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	5. In order to consider IUCN data in future (criterion d), the precise IUCN categories to be included in the SAR indicator calculations need to be agreed with the Commission.	5. EWG 16-09 indicator preparatory meeting discussed the issue of IUCN categories. The EWG 16-09 Prep. Meeting agreed with the approach taken by the expert selecting SAR to only consider species with a Critically Endangered (CR) status. Ultimately this issue cannot be addressed without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
	6. In addition to the IUCN Red List and CITES, species lists from other conventions (e.g. OSPAR and CMS, Barcelona Convention, etc.) could in future be considered. A time consuming data gathering exercise would be necessary to include all these listings; such an exercise should be separated from the actual calculation of the indicator.	6. Issue cannot be addressed without changing guidelines. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
Economic & technical indicators - general	1. Inconsistent clustering of fleet segments over time makes the interpretation of economic indicators for such clusters problematic.	1. Probable cases of inconsistent clustering were flagged during AER 1 and the EWG 16-09 indicator preparatory meeting was informed that some MS were able to improve on this. EWG 16-09 indicator preparatory meeting considers that it may not always

		possible to have consistent clusters, unless 'fake' or super clusters are used (which should not be encouraged). Moreover, the composition of fleet segments is always changing due to the 'dominance criteria' (listed in Commission Decision 2008/949/EC; Annex I, section A2.2), so there are inherent inconsistencies even when not considering clusters. EWG 16-09 is currently unable to propose a solution to the issue of inconsistent clustering.
	2. Assessment of economic and technical indicators for small scale fleet segments is challenging. Economic indicators are generally calculated based on the assumption that fishing is the main economic activity of the fleet segments being assessed. This is often not the case for small-scale fishing fleets where fishing is often only a supplementary source of income.	2. EWG 16-09 considers that economic and technical indicators for small-scale fleet segments should always be interpreted with caution, and that local expert knowledge is generally required to accurately interpret indictor results/trends.
Return on Investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA)	1. With regards to the application of the long term economic indicator ROI or RoFTA, the 2014 Balance Indicator Guidelines specify that the indicator is to be compared against the 'low risk long term interest rate'. The guidelines further suggest to use the '*use the arithmetic average interest rate for the previous 5 years'*. Balance EWGs take this approach and e.g. the STECF 15-02 specifies that the '*5-year average of the risk free long-term interest rate for each MS was used'*. On the other hand, the Annual Economic Report	1. EWG 16-09 indicator preparatory meeting notes that the lack of homogeneity in the methodology to estimate ROI and/or RoFTA by Balance EWGs (which use the approach given in the Commission guidelines) and the AER process was considered in detail by the 2016 AER meeting. It appears that the issue cannot be addressed without changing the Balance guidelines. EWG 16-09 reviewed the AER recommendations and reaffirms the suggestion for a dedicated EWG to revise indicator guidelines.

	(AER) 2015 uses the 'real interest rate'.	
Ratio between current revenue and break-even revenue (CR/BER)	1. Presentation / interpretation of trends: due to the volatile nature of variable costs associated with fishing, the CR/BER indicator values may fluctuate considerably from one year to the next and commenting on trends which may be driven by the price of fuel for instance, does not necessarily help inform an assessment of fleet under- or over-capacity in relation to fishing opportunities.	2. EWG 16-09 indicator preparatory meeting considers that whilst short term volatility is informative, in the long-term it is not. Moreover, the long-term approach overlaps with ROI or RoFTA. The long-term approach suggested in the guidelines should thus not be used and the EWG 16-09 balance indicator tables will as a result only present the short-term approach. EWG 16-09 reaffirms the need for a dedicated EWG to revise indicator guidelines.
Inactive Fleet Indicators	1. In some MS (esp. in the Mediterranean) there is high 'inactivity' for various reasons: many small vessels only operate part time / on a seasonal basis; fishers may own several boats, some of which are used as stand-by vessels for various reasons (see Finland / Italy /Malta 2015 annual reports).	1. EWG 16-09 considers that technical indicators always be interpreted with caution, and that local expert knowledge is generally required to accurately interpret indictor results/trends. This is in particular the case for small-scale fleet segments.
Vessel Use Indicator	1. Data on maximum days at sea (DAS) is not always submitted by MS, in which case a common theoretical maximum DAS of 220 days is used. The use of a theoretical DAS of 220 is not relevant for some fleet segments, in particular where fishing activities are seasonal.	1. STECF 15-15 considers that the use of a default value of 220 DAS to be used if no data on the maximum observed DAS is available should not be applied to vessels which measure less than 12 m in length. A clear methodology on how to calculate maximum DAS should be provide to MS to facilitate the calculation of correct values of maximum DAS. EWG 16-09 indicator preparatory meeting notes that an effort to standardise the calculation of DAS as well as fishing days was made by the second transversal variables workshop held in

		Nicosia in February 2016 (see Annex 5, Ribeiro et al., 2016). EWG 16-09 considers that this proposal should be reviewed at a dedicated EWG to revise indicator guidelines.
	2. In some MS vessel use within fleet segments is not homogenous because only parts of the fleet are fishing full time for various reasons (e.g. fleet segments include a proportion of part-time fishers; older vessels being inactive during periods of maintenance or repair, breaks imposed on parts of fleet segments due to management measures with some vessels compensating by targeting other stocks and others remaining inactive).	2. EWG 16-09 considers that technical indicators always be interpreted with caution, and that local expert knowledge is generally required to accurately interpret indictor results/trends. This is in particular the case for small-scale fleet segments.

14 Annex II – Percentage of Total Landings Data (Values) Submitted by Member States for which only Information for Aggregated Species Groups is Available in 2016

Country	Prop. landing value (%)	List of Species Groups
BEL	7.91	Anglerfishes nei - Atlantic redfishes nei - Catsharks_ nursehounds nei - Common squids nei - Demersal percomorphs nei - Inshore squids nei - Jack and horse mackerels nei - Marine crustaceans nei - Marine fishes nei - Megrims nei - Octopuses nei - Raja rays nei - Smooth-hounds nei - Trouts nei - Various sharks nei - Wrasses_ hogfishes_ etc. nei
CYP	7.96	Anchovies nei - Barracudas nei - Catsharks_ etc. nei - Common squids nei - Cuttlefishes nei - Dogfishes nei - Dogfish sharks nei - Flatfishes nei - Forkbeards nei - Groupers nei - Gurnards_ searobins nei - Herrings_ sardines nei - Homarus lobsters nei - Houndsharks_ smoothhounds nei - Jack and horse mackerels nei - Lizardfishes nei - Marine crabs nei - Marine fishes nei - Marlins_sailfishes_etc. nei - Monkfishes nei - Mullets nei - Natantian decapods nei - Octopuses_ etc. nei - Ommastrephidae squids nei - Palinurid spiny lobsters nei - Penaeid shrimps nei - Penaeus shrimps nei - Puffers nei - Rays and skates nei - Scomber mackerels nei - Scorpionfishes_ rockfishes nei - Spinefeet(=Rabbitfishes) nei - Stingrays_ butterfly rays nei - Weeverfishes nei - Wrasses_ hogfishes_ etc. nei
DEU	5.65	Anglerfishes nei - Atlantic redfishes nei - Dogfish sharks nei - Freshwater breams nei - Freshwater fishes nei - Jack and horse mackerels nei - Megrims nei - Mullets nei - Raja rays nei - Rays_ stingrays_ mantas nei - Surmullets(=Red mullets) nei - Trouts nei - Tunas nei - Various squids nei - Wolffishes(=Catfishes) nei
DNK	2.12	Boarfishes nei - Cephalopods nei - Cusk-eels_ brotulas nei - Eelpouts nei - Gastropods nei - Gobies nei - Marine crabs nei - Marine fishes nei - Mullets nei - Raja rays nei - Sandeels(=Sandlances) nei - Scallops nei - Wolffishes(=Catfishes) nei

Country	Prop. landing value (%)	List of Species Groups
		Alfonsinos_ etc. nei - Alfonsinos nei - Alloteuthis squids nei - Amberjacks nei - Anchovies_ etc. nei - Anchovies nei - Angelfishes nei - Anglerfishes nei - Antarctic rockcods_ noties nei - Aquatic invertebrates nei - Argonauts nei - Aristeid shrimps nei - Aristeus shrimps nei - Arm squids nei - Atlantic gobies nei - Atlantic puffers nei - Atlantic redfishes nei - Barracudas_ etc. nei - Barracudas nei - Bathyraja rays nei - Bigeyes_glasseyes_bulleyes nei - Boarfishes nei - Bonitos nei - Boxfishes nei - Brazilian groupers nei - Butterfishes nei - Butterfishes_ pomfrets nei - Butterfly rays nei - Callinectes swimcrabs nei - Carangids nei - Carcharhinus sharks nei - Carcinus crabs nei - Cardinalfishes_ etc. nei - Cartilaginous fishes nei - Catsharks_ etc. nei - Catsharks_ nursehounds nei - Cephalopods nei - Chaceon geryons nei - Chars nei - Citharids nei - Clams_ etc. nei - Cnidarians nei - Cockles nei - Combers nei - Common squids nei - Conger eels_ etc. nei - Conger eels nei - Copper breams(=Hottentots) nei - Crangonid shrimps nei - Crangon shrimps nei - Crest-tail catsharks nei - Croakers_ drums nei - Cusk-eels nei - Cuttlefish_ bobtail squids nei - Cuttlefishes nei - Daggerhead breams nei - Deania dogfishes nei - Deep-water sharks nei - Demersal percomorphs nei - Dentex nei - Diadromous fishes nei - Dogfishes and hounds nei - Dogfishes nei - Dogfish sharks_ etc. nei - Dogfish sharks nei - Dolphinfishes nei - Dories nei - Drums nei - Eagle rays nei - Electric rays nei - Elephantfishes_ etc. nei - Filefishes nei - Finfishes nei - Flabellum cup corals nei - Flatfishes nei - Flyingfishes nei - Flying squids nei - Forkbeards nei - Frog shell nei - Gadiformes nei - Galjoens nei - Gastropods nei - Glow-bellies_ splitfins nei - Goatfishes_ red mullets nei - Gobies nei - Grenadiers nei - Groundfishes nei - Groupers nei - Groupers_ seabasses nei - Grunts_ sweetlips nei - Guitarfishes_ etc. nei - Guitarfishes nei - Gulper sharks nei - Gurnards nei - Gurnards_ searobins nei - Hairtails nei - Hairtails_ scabbardfishes nei - Hakes nei - Herrings_ sardines nei - Homarus lobsters nei - Horse mussels nei - Houndsharks_ smoothhounds nei - Inshore squids nei - Jack and horse mackerels nei - Jacks_ crevalles nei - Kelps nei - King crabs nei - King crabs_ stone crabs nei - Knife shrimps nei - Labrus wrasses nei - Lanternfishes nei - Lanternsharks nei - Lefteye flounders nei - Lepadidae barnacles nei - Limandas nei - Lings nei - Lizardfishes nei - Lobsters nei - Mackerel sharks_porbeagles nei - Mackerels nei - Mactra surf clams nei - Maja spider crabs nei - Mantas_ devil rays nei - Marine crabs nei - Marine crustaceans nei - Marine fishes nei - Marine molluscs nei - Marlins_sailfishes_etc. nei - Meagres nei - Megrims nei - Menhadens nei - Merluccid hakes nei - Metanephrops lobsters nei - Metapenaeus shrimps nei - Mojarras(=Silver-biddies) nei - Monkfishes nei - Moras nei - Morays nei - Mullets nei - Natantian decapods nei - Needlefishes_ etc. nei - Northern cods nei - Nototodarus flying squids nei - Nurse sharks nei - Octopuses_ etc. nei - Octopuses nei - Ommastrephidae squids nei - Pacific salmons nei - Pacific shrimps nei - Palaemonid shrimps nei - Palaemon shrimps nei - Palinurid spiny lobsters nei - Pandalid shrimps nei - Pandalopsis shrimps nei - Pandalus shrimps nei - Pandoras nei - Paranotothenia nei - Pargo breams nei - Patagonotothen nei - Pelagic fishes nei - Penaeid shrimps nei - Penaeus shrimps nei - Pen shells nei - Percoids nei - Picarels_ etc. nei - Picarels nei - Pipefishes nei - Plesionika shrimps nei - Polystegan seabreams nei - Pomfrets_ ocean breams nei - Pompanos nei - Ponyfishes(=Slipmouths) nei - Porgies_ seabreams nei - Portunus swimcrabs nei - Precious corals nei - Psammobatis sand skates nei - Puffers nei - Rainbow sardines nei - Raja rays nei - Ratfishes nei - Rays and skates nei - Rays_ stingrays_ mantas nei - Razor clams_ knife clams nei - Reef squids nei - Rhinobatos irvinei - Righteye flounders nei - River eels nei - Rocklings nei - Rock lobsters nei - Rosefishes nei - Ruffs_ barrelfishes nei - Sandeels(=Sandlances) nei - Sand flounders nei - Sand smelts nei - Sardinellas nei - Sargo breams nei - Sauries nei - Scads nei - Scallops nei - Scalpellidae barnacles nei - Schedophilus nei - Sciaenas nei - Scomber mackerels nei - Scorpionfishes nei - Scorpionfishes_ rockfishes nei - Sculptured shrimps nei - Seabasses nei - Sea chubs nei - Sea cucumbers nei - Seaweeds nei - Sepiella cuttlefishes nei - Sepiola bobtail squids nei - Sergestid shrimps nei - Shads nei - Sharks_ rays_ skates_ etc. nei - Sharpnose sharks nei - Shortfin squids nei - Sicklefishes nei - Silver pomfrets nei - Silversides(=Sand smelts)

Country	Prop. landing value (%)	List of Species Groups
FIN	5.07	Trouts nei - Whitefishes nei
FRA	12.99	Alfonsinos nei - Amberjacks nei - Atlantic gobies nei - Atlantic redfishes nei - Barracudas nei - Bigeyes nei - Bonitos nei - Boxfishes nei - Callinectes swimcrabs nei - Carangids nei - Carpet shells nei - Catsharks_ etc. nei - Catsharks_ nursehounds nei - Cephalopods nei - Clupeoids nei - Combers nei - Cupped oysters nei - Cuttlefish_ bobtail squids nei - Dogfishes and hounds nei - Dogfish sharks_ etc. nei - Dogfish sharks nei - Dolphinfishes nei - Drums nei - Emperors(=Scavengers) nei - Flatfishes nei - Forkbeards nei - Freshwater fishes nei - Gadiformes nei - Gastropods nei - Grenadiers nei - Groupers nei - Grunts_ sweetlips nei - Gurnards_ searobins nei - Hairtails_ scabbardfishes nei - Herrings_ sardines nei - Inshore squids nei - Jack and horse mackerels nei - Jacks_ crevalles nei - Jobfishes nei - Lanternsharks nei - Lefteye flounders nei - Lings nei - Lobsters nei - Mackerel sharks_porbeagles nei - Mackerels nei - Marine crabs nei - Marine crustaceans nei - Marine fishes nei - Marlins_sailfishes_etc. nei - Megrims nei - Monkfishes nei - Mytilus mussels nei - Natantian decapods nei - Needlefishes_ etc. nei - Octopuses_ etc. nei - Pandoras nei - Pargo breams nei - Parrotfishes nei - Penaeus shrimps nei - Picarels nei - Porgies_ seabreams nei - Ratfishes nei - Rays and skates nei - Rays_ stingrays_ mantas nei - Righteye flounders nei - Right-handed hermit crabs nei - Rocklings nei - Sandeels(=Sandlances) nei - Sargo breams nei - Scads nei - Scorpionfishes_ rockfishes nei - Seabasses nei - Sea cucumbers nei - Sea urchins_ etc. nei - Seaweeds nei - Seerfishes nei - Shortfin squids nei - Silversides(=Sand smelts) nei - Smooth-hounds nei - Snappers nei - Snooks(=Robalos) nei - Solen razor clams nei - Soles nei - Spiny lobsters nei - Squillids nei - Squirrelfishes nei - Stingrays_ butterfly rays nei - Stromboid conchs nei - Surgeonfishes nei - Surmullets(=Red mullets) nei - Symphodus wrasses nei - Tellins nei - Triggerfishes_ durgons nei - Trough shells nei - True lobsters_lobsterettes nei - Tunas nei - Various sharks nei - Various squids nei - Weakfishes nei - Wrasses_ hogfishes_ etc. nei
GBR	11.90	Alfonsinos nei - Anglerfishes nei - Atlantic redfishes nei - Catsharks_ etc. nei - Clams_ etc. nei - Common squids nei - Conger eels_ etc. nei - Cupped oysters nei - Cuttlefish_ bobtail squids nei - Dogfishes and hounds nei - Dogfish sharks nei - Groundfishes nei - Gurnards_ searobins nei - Jack and horse mackerels nei - Marine crabs nei - Marine crustaceans nei - Megrims nei - Mullets nei - Octopuses_ etc. nei - Palinurid spiny lobsters nei - Pandalus shrimps nei - Penaeus shrimps nei - Periwinkles nei - Porgies_ seabreams nei - Raja rays nei - Rocklings nei - Sandeels(=Sandlances) nei - Sea cucumbers nei - Sea urchins nei - Solen razor clams nei - Surf clams nei - Thresher sharks nei - Triggerfishes_ durgons nei - Various squids nei - Venus clams nei - Weeverfishes nei - Wolffishes(=Catfishes) nei - Wrasses_ hogfishes_ etc. nei

Country	Prop. landing value (%)	List of Species Groups
GRC	4.24	Atlantic gobies nei - Catsharks_ nursehounds nei - Dogfishes nei - Gurnards_ searobins nei - Jack and horse mackerels nei - Marine fishes nei - Mullets nei - Pelagic fishes nei - Picarels nei - Raja rays nei - Sargo breams nei - Scomber mackerels nei - Scorpionfishes_ rockfishes nei - Slipper lobsters nei - Smooth-hounds nei - Wrasses_ hogfishes_ etc. nei
HRV	4.82	Catsharks_ nursehounds nei - Cephalopods nei - Clams_ etc. nei - Cuttlefish_ bobtail squids nei - Dogfish sharks nei - Forkbeards nei - Gastropods nei - Groundfishes nei - Groupers nei - Gurnards_ searobins nei - Jack and horse mackerels nei - Marine crustaceans nei - Marine fishes nei - Megrims nei - Monkfishes nei - Mullets nei - Picarels nei - Raja rays nei - Righteye flounders nei - Scallops nei - Sea urchins_ etc. nei - Various squids nei - Weevers nei
IRL	17.77	Anglerfishes nei - Barracudas nei - Boarfishes nei - Catsharks_ etc. nei - Clams_ etc. nei - Common squids nei - Conger eels nei - Cuttlefish_ bobtail squids nei - Dogfishes nei - Dogfish sharks nei - Dories nei - Gurnards_ searobins nei - Inshore squids nei - Jack and horse mackerels nei - Megrims nei - Mullets nei - Octopuses_ etc. nei - Palaemonid shrimps nei - Palinurid spiny lobsters nei - Pandalus shrimps nei - Penaeus shrimps nei - Periwinkles nei - Porgies_ seabreams nei - Raja rays nei - Rays and skates nei - Rays_ stingrays_ mantas nei - Razor clams_ knife clams nei - Scallops nei - Sea cucumbers nei - Sharks_ rays_ skates_ etc. nei - Soles nei - Spiny lobsters nei - Surf clams nei - Surmullets(=Red mullets) nei - Swimming crabs_ etc. nei - True tunas nei - Various squids nei - Wolffishes(=Catfishes) nei - Wrasses_ hogfishes_ etc. nei
ITA	4.19	Alloteuthis squids nei - Cockles nei - Crest-tail catsharks nei - Cuttlefish_ bobtail squids nei - Dogfishes nei - Gastropods nei - Gobies nei - Groupers_ seabasses nei - Hammerhead sharks nei - Marine crabs nei - Marine crustaceans nei - Marine fishes nei - Marine molluscs nei - Marlins_sailfishes_etc. nei - Mullets nei - Plesionika shrimps nei - Raja rays nei - Rays_ stingrays_ mantas nei - Sandeels(=Sandlances) nei - Sargo breams nei - Scallops nei - Scorpionfishes nei - Sharks_ rays_ skates_ etc. nei - Silversides(=Sand smelts) nei - Stingrays_ butterfly rays nei - Turbots nei - Venus clams nei - Weeverfishes nei - Wrasses_ hogfishes_ etc. nei
LTU	4.26	Alfonsinos nei - Hairtails_ scabbardfishes nei - Hakes nei - Jack and horse mackerels nei - Porgies_ seabreams nei - Sardinellas nei - Tanner crabs nei - Tunas nei
MLT	1.95	Dogfishes nei - Flyingfishes nei - Forkbeards nei - Groupers nei - Gurnards nei - Marine fishes nei - Mullets nei - Raja rays nei - Sardinellas nei - Scorpionfishes_ rockfishes nei - Surmullets(=Red mullets) nei - Wrasses_ hogfishes_ etc. nei
NLD	0.03	Anglerfishes nei - Catsharks_ nursehounds nei - Dogfishes nei - Dogfish sharks nei - Jack and horse mackerels nei - Marine fishes nei - Megrims nei - Mullets nei - Rays and skates nei - Rays_ stingrays_ mantas nei - Sargo breams nei - Seabasses nei - Smooth-hounds nei - Soles nei - Stingrays_ butterfly rays nei - Various squids nei

Country	Prop. landing value (%)	List of Species Groups
POL	2.33	Freshwater fishes nei - Gobies nei - Marine fishes nei - Pelagic fishes nei - Sandeels(=Sandlances) nei
PRT	8.87	Abalones nei - Alfonsinos nei - Alloteuthis squids nei - Amberjacks nei - Anglerfishes nei - Atlantic redfishes nei - Catsharks_ nursehounds nei - Combers nei - Common squids nei - Conger eels nei - Crangonid shrimps nei - Cupped oysters nei - Electric rays nei - Finfishes nei - Flat oysters nei - Flyingfishes nei - Forkbeards nei - Groupers nei - Gurnards nei - Gurnards_ searobins nei - Hakes nei - Jack and horse mackerels nei - Jacks_ crevalles nei - Lefteye flounders nei - Limpets nei - Marine crabs nei - Marine crustaceans nei - Marine fishes nei - Meagres nei - Megrims nei - Monkfishes nei - Morays nei - Mytilus mussels nei - Octopuses_ etc. nei - Octopuses nei - Ommastrephidae squids nei - Palinurid spiny lobsters nei - Pandalid shrimps nei - Pandalus shrimps nei - Pargo breams nei - Picarels nei - Plesionika shrimps nei - Portunus swimcrabs nei - Raja rays nei - Rocklings nei - Sandeels(=Sandlances) nei - Sargo breams nei - Scads nei - Scomber mackerels nei - Scorpionfishes nei - Scorpionfishes_ rockfishes nei - Seabasses nei - Sea cucumbers nei - Seerfishes nei - Silversides(=Sand smelts) nei - Smooth-hounds nei - Snappers nei - Spiny lobsters nei - Stingrays nei - Surmullets(=Red mullets) nei - Thickback soles nei - Threadfins_ tasselfishes nei - Tonguesole nei - Weevers nei - West African croakers nei - Wolffishes(=Catfishes) nei
ROU	0.77	Gobies nei
SVN	3.08	Gurnards_ searobins nei - Jack and horse mackerels nei - Mullets nei - Picarels nei - Smooth-hounds nei
SWE	1.27	Common squids nei - Marine molluscs nei - Raja rays nei - Sandeels(=Sandlances) nei - Whitefishes nei - Wolffishes(=Catfishes) nei

15 ANNEX III – COMPLIMENTARY DATA FOR THE SHI

Information on the number of stocks for which assessments were available when calculating the Sustainable Harvest Indicator (SHI) and the number of stocks considered overfished ($F_{current} > F_{MSY}$ or its proxy $F_{0.1}$), provided by Member State (MS) fleet segment.

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	BEL	BEL-AREA27-DTS-VL2440-NGI	35	16
AREA27	BEL	BEL-AREA27-PMP-VL1824-NGI	13	7
AREA27	BEL	BEL-AREA27-TBB-VL1824-NGI	23	12
AREA27	BEL	BEL-AREA27-TBB-VL2440-NGI	38	18
AREA27	DEU	DEU-AREA27-DFN-VL1218-	11	6
AREA27	DEU	DEU-AREA27-DFN-VL2440-	12	6
AREA27	DEU	DEU-AREA27-DTS-VL1012-	5	3
AREA27	DEU	DEU-AREA27-DTS-VL1218-	6	3
AREA27	DEU	DEU-AREA27-DTS-VL1824-	15	8
AREA27	DEU	DEU-AREA27-DTS-VL2440-	17	8
AREA27	DEU	DEU-AREA27-DTS-VL40XX-	22	8
AREA27	DEU	DEU-AREA27-PG-VL0010-	6	3
AREA27	DEU	DEU-AREA27-PG-VL1012-	6	3
AREA27	DEU	DEU-AREA27-TBB-VL1012-	1	
AREA27	DEU	DEU-AREA27-TBB-VL1218-	7	3
AREA27	DEU	DEU-AREA27-TBB-VL1824-	10	6
AREA27	DEU	DEU-AREA27-TBB-VL2440-	9	5
AREA27	DEU	DEU-AREA27-TM-VL40XX-	21	10
AREA27	DNK	DNK-AREA27-DRB-VL1012-NGI	4	2
AREA27	DNK	DNK-AREA27-DTS-VL0010-NGI	9	4
AREA27	DNK	DNK-AREA27-DTS-VL1012-NGI	13	6
AREA27	DNK	DNK-AREA27-DTS-VL1218-NGI	21	11
AREA27	DNK	DNK-AREA27-DTS-VL1824-NGI	20	10
AREA27	DNK	DNK-AREA27-DTS-VL2440-NGI	28	11
AREA27	DNK	DNK-AREA27-DTS-VL40XX-NGI	19	8
AREA27	DNK	DNK-AREA27-PGP-VL0010-NGI	16	8
AREA27	DNK	DNK-AREA27-PGP-VL1012-NGI	13	7
AREA27	DNK	DNK-AREA27-PGP-VL1218-NGI	15	7
AREA27	DNK	DNK-AREA27-PMP-VL0010-NGI	14	7
AREA27	DNK	DNK-AREA27-PMP-VL1012-NGI	17	8
AREA27	DNK	DNK-AREA27-PMP-VL1218-NGI	19	10
AREA27	DNK	DNK-AREA27-PMP-VL1824-NGI	16	6
AREA27	DNK	DNK-AREA27-TBB-VL1218-NGI	2	1
AREA27	DNK	DNK-AREA27-TBB-VL1824-NGI	8	3
AREA27	DNK	DNK-AREA27-TM-VL1218-NGI	16	7
AREA27	DNK	DNK-AREA27-TM-VL40XX-NGI	22	9
AREA27	ESP	ESP-AREA27-DFN-VL0010-	6	2

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	ESP	ESP-AREA27-DFN-VL1012-	14	8
AREA27	ESP	ESP-AREA27-DFN-VL1218-	20	12
AREA27	ESP	ESP-AREA27-DFN-VL1824-	14	8
AREA27	ESP	ESP-AREA27-DFN-VL2440-	9	5
AREA27	ESP	ESP-AREA27-DRB-VL0010-	9	5
AREA27	ESP	ESP-AREA27-DRB-VL1012-	2	2
AREA27	ESP	ESP-AREA27-DTS-VL1012-	6	2
AREA27	ESP	ESP-AREA27-DTS-VL1218-	10	6
AREA27	ESP	ESP-AREA27-DTS-VL1824-	10	5
AREA27	ESP	ESP-AREA27-DTS-VL2440-	29	14
AREA27	ESP	ESP-AREA27-DTS-VL40XX-	16	10
AREA27	ESP	ESP-AREA27-FPO-VL1012-	11	6
AREA27	ESP	ESP-AREA27-FPO-VL1218-	13	7
AREA27	ESP	ESP-AREA27-HOK-VL0010-	6	3
AREA27	ESP	ESP-AREA27-HOK-VL1012-	15	9
AREA27	ESP	ESP-AREA27-HOK-VL1218-	17	10
AREA27	ESP	ESP-AREA27-HOK-VL1824-	17	9
AREA27	ESP	ESP-AREA27-HOK-VL2440-	14	8
AREA27	ESP	ESP-AREA27-PGO-VL1218-	3	1
AREA27	ESP	ESP-AREA27-PGO-VL1824-	5	2
AREA27	ESP	ESP-AREA27-PGO-VL2440-	7	3
AREA27	ESP	ESP-AREA27-PGP-VL1824-	5	3
AREA27	ESP	ESP-AREA27-PGP-VL2440-	10	6
AREA27	ESP	ESP-AREA27-PMP-VL0010-	13	7
AREA27	ESP	ESP-AREA27-PMP-VL1012-	12	7
AREA27	ESP	ESP-AREA27-PMP-VL1218-	13	7
AREA27	ESP	ESP-AREA27-PMP-VL1824-	9	4
AREA27	ESP	ESP-AREA27-PMP-VL2440-	9	5
AREA27	ESP	ESP-AREA27-PS-VL0010-	3	2
AREA27	ESP	ESP-AREA27-PS-VL1012-	7	3
AREA27	ESP	ESP-AREA27-PS-VL1218-	11	6
AREA27	ESP	ESP-AREA27-PS-VL1824-	13	7
AREA27	ESP	ESP-AREA27-PS-VL2440-	8	4
AREA27	EST	EST-AREA27-PG-VL0010-NGI	3	2
AREA27	EST	EST-AREA27-PG-VL1012-NGI	2	2
AREA27	EST	EST-AREA27-TM-VL1218-NGI	2	1
AREA27	EST	EST-AREA27-TM-VL1824-NGI	3	2
AREA27	EST	EST-AREA27-TM-VL2440-NGI	3	2
AREA27	FIN	FIN-AREA27-PG-VL0010-	3	2
AREA27	FIN	FIN-AREA27-PG-VL1012-	3	2
AREA27	FIN	FIN-AREA27-TM-VL1218-	4	3
AREA27	FIN	FIN-AREA27-TM-VL1824-	3	2
AREA27	FIN	FIN-AREA27-TM-VL2440-	5	4
AREA27	FRA	FRA-AREA27-DFN-VL0010-	28	16

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	FRA	FRA-AREA27-DFN-VL1012-	36	19
AREA27	FRA	FRA-AREA27-DFN-VL1218-	30	16
AREA27	FRA	FRA-AREA27-DFN-VL1824-	31	17
AREA27	FRA	FRA-AREA27-DFN-VL2440-	11	8
AREA27	FRA	FRA-AREA27-DRB-VL0010-	14	7
AREA27	FRA	FRA-AREA27-DRB-VL1012-	19	10
AREA27	FRA	FRA-AREA27-DRB-VL1218-	16	8
AREA27	FRA	FRA-AREA27-DRB-VL1824-	13	8
AREA27	FRA	FRA-AREA27-DRB-VL2440-	5	3
AREA27	FRA	FRA-AREA27-DTS-VL0010-	22	12
AREA27	FRA	FRA-AREA27-DTS-VL1012-	30	16
AREA27	FRA	FRA-AREA27-DTS-VL1218-	36	19
AREA27	FRA	FRA-AREA27-DTS-VL1824-	49	24
AREA27	FRA	FRA-AREA27-DTS-VL2440-	50	25
AREA27	FRA	FRA-AREA27-DTS-VL40XX-	23	15
AREA27	FRA	FRA-AREA27-FPO-VL0010-	19	10
AREA27	FRA	FRA-AREA27-FPO-VL1012-	20	10
AREA27	FRA	FRA-AREA27-FPO-VL1218-	10	4
AREA27	FRA	FRA-AREA27-FPO-VL1824-	2	2
AREA27	FRA	FRA-AREA27-HOK-VL0010-	21	12
AREA27	FRA	FRA-AREA27-HOK-VL1012-	21	12
AREA27	FRA	FRA-AREA27-HOK-VL1218-	6	3
AREA27	FRA	FRA-AREA27-HOK-VL1824-	4	2
AREA27	FRA	FRA-AREA27-HOK-VL2440-	15	10
AREA27	FRA	FRA-AREA27-MGO-VL0010-	11	5
AREA27	FRA	FRA-AREA27-MGO-VL1012-	1	1
AREA27	FRA	FRA-AREA27-MGP-VL0010-	11	6
AREA27	FRA	FRA-AREA27-MGP-VL1012-	20	10
AREA27	FRA	FRA-AREA27-MGP-VL1218-	24	11
AREA27	FRA	FRA-AREA27-MGP-VL1824-	25	12
AREA27	FRA	FRA-AREA27-MGP-VL2440-	20	10
AREA27	FRA	FRA-AREA27-PGO-VL0010-	6	3
AREA27	FRA	FRA-AREA27-PGP-VL0010-	21	11
AREA27	FRA	FRA-AREA27-PGP-VL1012-	19	10
AREA27	FRA	FRA-AREA27-PGP-VL1218-	6	4
AREA27	FRA	FRA-AREA27-PMP-VL0010-	16	10
AREA27	FRA	FRA-AREA27-PMP-VL1012-	22	13
AREA27	FRA	FRA-AREA27-PMP-VL1218-	12	6
AREA27	FRA	FRA-AREA27-PS-VL1012-	4	2
AREA27	FRA	FRA-AREA27-PS-VL1218-	10	4
AREA27	FRA	FRA-AREA27-PS-VL1824-	6	2
AREA27	FRA	FRA-AREA27-TBB-VL1012-	6	3
AREA27	FRA	FRA-AREA27-TBB-VL1218-	13	7
AREA27	FRA	FRA-AREA27-TM-VL0010-	5	3

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	FRA	FRA-AREA27-TM-VL1012-	9	5
AREA27	FRA	FRA-AREA27-TM-VL1218-	18	10
AREA27	FRA	FRA-AREA27-TM-VL1824-	29	17
AREA27	FRA	FRA-AREA27-TM-VL40XX-	12	5
AREA27	GBR	GBR-AREA27-DFN-VL0010-NGI	28	13
AREA27	GBR	GBR-AREA27-DFN-VL1012-NGI	21	11
AREA27	GBR	GBR-AREA27-DFN-VL1218-NGI	20	12
AREA27	GBR	GBR-AREA27-DFN-VL1824-NGI	21	11
AREA27	GBR	GBR-AREA27-DFN-VL2440-NGI	6	3
AREA27	GBR	GBR-AREA27-DRB-VL0010-NGI	40	18
AREA27	GBR	GBR-AREA27-DRB-VL1012-NGI	20	10
AREA27	GBR	GBR-AREA27-DRB-VL1218-NGI	37	16
AREA27	GBR	GBR-AREA27-DRB-VL1824-NGI	13	6
AREA27	GBR	GBR-AREA27-DRB-VL2440-NGI	16	8
AREA27	GBR	GBR-AREA27-DRB-VL40XX-NGI	4	3
AREA27	GBR	GBR-AREA27-DTS-VL0010-NGI	43	18
AREA27	GBR	GBR-AREA27-DTS-VL1012-NGI	40	17
AREA27	GBR	GBR-AREA27-DTS-VL1218-NGI	49	21
AREA27	GBR	GBR-AREA27-DTS-VL1824-NGI	52	21
AREA27	GBR	GBR-AREA27-DTS-VL2440-NGI	60	28
AREA27	GBR	GBR-AREA27-DTS-VL40XX-NGI	36	19
AREA27	GBR	GBR-AREA27-FPO-VL0010-NGI	42	19
AREA27	GBR	GBR-AREA27-FPO-VL1012-NGI	34	15
AREA27	GBR	GBR-AREA27-FPO-VL1218-NGI	15	9
AREA27	GBR	GBR-AREA27-HOK-VL0010-NGI	27	13
AREA27	GBR	GBR-AREA27-HOK-VL1012-NGI	17	9
AREA27	GBR	GBR-AREA27-HOK-VL2440-NGI	4	1
AREA27	GBR	GBR-AREA27-MGP-VL0010-NGI	19	7
AREA27	GBR	GBR-AREA27-MGP-VL1218-NGI	24	13
AREA27	GBR	GBR-AREA27-PGP-VL0010-NGI	29	14
AREA27	GBR	GBR-AREA27-PMP-VL0010-NGI	14	6
AREA27	GBR	GBR-AREA27-PS-VL1218-NGI	6	3
AREA27	GBR	GBR-AREA27-TBB-VL0010-NGI	14	6
AREA27	GBR	GBR-AREA27-TBB-VL1012-NGI	7	4
AREA27	GBR	GBR-AREA27-TBB-VL1218-NGI	22	13
AREA27	GBR	GBR-AREA27-TBB-VL1824-NGI	25	14
AREA27	GBR	GBR-AREA27-TBB-VL2440-NGI	30	18
AREA27	GBR	GBR-AREA27-TBB-VL40XX-NGI	13	5
AREA27	GBR	GBR-AREA27-TM-VL0010-NGI	11	6
AREA27	GBR	GBR-AREA27-TM-VL1218-NGI	15	10
AREA27	GBR	GBR-AREA27-TM-VL2440-NGI	4	1
AREA27	GBR	GBR-AREA27-TM-VL40XX-NGI	20	7
AREA27	IRL	IRL-AREA27-DFN-VL0010-	28	12
AREA27	IRL	IRL-AREA27-DFN-VL1012-	18	10

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	IRL	IRL-AREA27-DFN-VL1218-	15	9
AREA27	IRL	IRL-AREA27-DFN-VL1824-	10	6
AREA27	IRL	IRL-AREA27-DFN-VL2440-	8	5
AREA27	IRL	IRL-AREA27-DRB-VL0010-	17	10
AREA27	IRL	IRL-AREA27-DRB-VL1012-	5	1
AREA27	IRL	IRL-AREA27-DRB-VL1218-	3	
AREA27	IRL	IRL-AREA27-DTS-VL0010-	33	16
AREA27	IRL	IRL-AREA27-DTS-VL1012-	28	14
AREA27	IRL	IRL-AREA27-DTS-VL1218-	35	16
AREA27	IRL	IRL-AREA27-DTS-VL1824-	45	17
AREA27	IRL	IRL-AREA27-DTS-VL2440-	40	17
AREA27	IRL	IRL-AREA27-FPO-VL0010-	25	12
AREA27	IRL	IRL-AREA27-FPO-VL1012-	29	14
AREA27	IRL	IRL-AREA27-FPO-VL1218-	15	9
AREA27	IRL	IRL-AREA27-HOK-VL0010-	17	9
AREA27	IRL	IRL-AREA27-HOK-VL1012-	2	2
AREA27	IRL	IRL-AREA27-PGP-VL1012-	3	3
AREA27	IRL	IRL-AREA27-PMP-VL1012-	7	5
AREA27	IRL	IRL-AREA27-PMP-VL1218-	8	3
AREA27	IRL	IRL-AREA27-PS-VL0010-	5	3
AREA27	IRL	IRL-AREA27-TBB-VL0010-	7	7
AREA27	IRL	IRL-AREA27-TBB-VL1824-	18	9
AREA27	IRL	IRL-AREA27-TBB-VL2440-	19	10
AREA27	IRL	IRL-AREA27-TM-VL1012-	8	3
AREA27	IRL	IRL-AREA27-TM-VL1218-	20	11
AREA27	IRL	IRL-AREA27-TM-VL2440-	27	12
AREA27	IRL	IRL-AREA27-TM-VL40XX-	15	4
AREA27	LTU	LTU-AREA27-DFN-VL1012-	1	1
AREA27	LTU	LTU-AREA27-DTS-VL1824-	3	2
AREA27	LTU	LTU-AREA27-DTS-VL2440-	3	2
AREA27	LTU	LTU-AREA27-PG-VL0010-	2	1
AREA27	LTU	LTU-AREA27-TM-VL1824-	3	2
AREA27	LTU	LTU-AREA27-TM-VL2440-	3	2
AREA27	LTU	LTU-AREA27-TM-VL40XX-	3	2
AREA27	LVA	LVA-AREA27-PGP-VL0010-NGI	3	2
AREA27	LVA	LVA-AREA27-TM-VL1218-NGI	2	1
AREA27	LVA	LVA-AREA27-TM-VL2440-NGI	3	2
AREA27	NLD	NLD-AREA27-DFN-VL1218-NGI	6	4
AREA27	NLD	NLD-AREA27-DFN-VL1824-NGI	5	3
AREA27	NLD	NLD-AREA27-DRB-VL2440-NGI	6	3
AREA27	NLD	NLD-AREA27-DTS-VL0010-NGI	5	3
AREA27	NLD	NLD-AREA27-DTS-VL1824-NGI	13	6
AREA27	NLD	NLD-AREA27-DTS-VL2440-NGI	28	14
AREA27	NLD	NLD-AREA27-PG-VL0010-NGI	7	4

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	NLD	NLD-AREA27-PG-VL1012-NGI	6	4
AREA27	NLD	NLD-AREA27-TBB-VL0010-NGI	5	3
AREA27	NLD	NLD-AREA27-TBB-VL1218-NGI	1	
AREA27	NLD	NLD-AREA27-TBB-VL1824-NGI	11	5
AREA27	NLD	NLD-AREA27-TBB-VL2440-NGI	20	7
AREA27	NLD	NLD-AREA27-TBB-VL40XX-NGI	14	6
AREA27	NLD	NLD-AREA27-TM-VL40XX-NGI	20	8
AREA27	POL	POL-AREA27-DFN-VL1218-	3	2
AREA27	POL	POL-AREA27-DTS-VL1218-	4	3
AREA27	POL	POL-AREA27-DTS-VL1824-	4	3
AREA27	POL	POL-AREA27-PG-VL0010-	5	4
AREA27	POL	POL-AREA27-PG-VL1012-	5	4
AREA27	POL	POL-AREA27-TM-VL1824-	3	2
AREA27	POL	POL-AREA27-TM-VL2440-	5	4
AREA27	PRT	PRT-AREA27-DFN-VL0010-NGI	9	6
AREA27	PRT	PRT-AREA27-DFN-VL0010-P3	4	1
AREA27	PRT	PRT-AREA27-DFN-VL1012-NGI	10	6
AREA27	PRT	PRT-AREA27-DFN-VL1218-NGI	13	6
AREA27	PRT	PRT-AREA27-DFN-VL1824-NGI	11	7
AREA27	PRT	PRT-AREA27-DTS-VL0010-NGI	9	5
AREA27	PRT	PRT-AREA27-DTS-VL1012-NGI	8	5
AREA27	PRT	PRT-AREA27-DTS-VL1218-NGI	9	5
AREA27	PRT	PRT-AREA27-DTS-VL1824-NGI	9	5
AREA27	PRT	PRT-AREA27-DTS-VL2440-NGI	13	7
AREA27	PRT	PRT-AREA27-DTS-VL40XX-IWE	4	1
AREA27	PRT	PRT-AREA27-FPO-VL0010-NGI	5	2
AREA27	PRT	PRT-AREA27-FPO-VL1012-NGI	7	5
AREA27	PRT	PRT-AREA27-FPO-VL1218-NGI	10	6
AREA27	PRT	PRT-AREA27-FPO-VL1824-NGI	6	4
AREA27	PRT	PRT-AREA27-HOK-VL0010-NGI	6	4
AREA27	PRT	PRT-AREA27-HOK-VL0010-P3	3	1
AREA27	PRT	PRT-AREA27-HOK-VL1012-NGI	4	1
AREA27	PRT	PRT-AREA27-HOK-VL1012-P3	4	1
AREA27	PRT	PRT-AREA27-HOK-VL1218-NGI	11	6
AREA27	PRT	PRT-AREA27-HOK-VL1218-P3	5	1
AREA27	PRT	PRT-AREA27-HOK-VL1824-NGI	7	2
AREA27	PRT	PRT-AREA27-HOK-VL2440-NGI	9	3
AREA27	PRT	PRT-AREA27-HOK-VL2440-P3	6	1
AREA27	PRT	PRT-AREA27-MGO-VL0010-NGI	4	3
AREA27	PRT	PRT-AREA27-MGO-VL1012-NGI	4	3
AREA27	PRT	PRT-AREA27-PGP-VL0010-NGI	14	7
AREA27	PRT	PRT-AREA27-PGP-VL0010-P3	1	
AREA27	PRT	PRT-AREA27-PGP-VL1012-NGI	6	3
AREA27	PRT	PRT-AREA27-PGP-VL1218-NGI	11	7

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA27	PRT	PRT-AREA27-PGP-VL1824-NGI	7	4
AREA27	PRT	PRT-AREA27-PMP-VL0010-NGI	4	3
AREA27	PRT	PRT-AREA27-PS-VL0010-NGI	5	4
AREA27	PRT	PRT-AREA27-PS-VL1012-NGI	5	3
AREA27	PRT	PRT-AREA27-PS-VL1012-P3	4	1
AREA27	PRT	PRT-AREA27-PS-VL1218-NGI	7	4
AREA27	PRT	PRT-AREA27-PS-VL1824-NGI	7	4
AREA27	PRT	PRT-AREA27-PS-VL2440-NGI	6	4
AREA27	PRT	PRT-AREA27-TBB-VL0010-NGI	5	3
AREA27	PRT	PRT-AREA27-TBB-VL1012-NGI	3	2
AREA27	SWE	SWE-AREA27-DFN-VL0010-NGI	13	7
AREA27	SWE	SWE-AREA27-DFN-VL1012-NGI	13	6
AREA27	SWE	SWE-AREA27-DFN-VL1218-NGI	5	2
AREA27	SWE	SWE-AREA27-DTS-VL0010-NGI	8	2
AREA27	SWE	SWE-AREA27-DTS-VL1012-NGI	12	6
AREA27	SWE	SWE-AREA27-DTS-VL1218-NGI	13	6
AREA27	SWE	SWE-AREA27-DTS-VL1824-NGI	21	10
AREA27	SWE	SWE-AREA27-DTS-VL2440-NGI	22	12
AREA27	SWE	SWE-AREA27-FPO-VL0010-NGI	11	5
AREA27	SWE	SWE-AREA27-FPO-VL1012-NGI	10	4
AREA27	SWE	SWE-AREA27-FPO-VL1218-NGI	1	
AREA27	SWE	SWE-AREA27-HOK-VL0010-NGI	2	1
AREA27	SWE	SWE-AREA27-HOK-VL1012-NGI	6	3
AREA27	SWE	SWE-AREA27-PGP-VL0010-NGI	10	4
AREA27	SWE	SWE-AREA27-PS-VL1012-NGI	1	1
AREA27	SWE	SWE-AREA27-PS-VL1218-NGI	1	1
AREA27	SWE	SWE-AREA27-PS-VL40XX-NGI	10	6
AREA27	SWE	SWE-AREA27-TM-VL1012-NGI	3	2
AREA27	SWE	SWE-AREA27-TM-VL1218-NGI	3	2
AREA27	SWE	SWE-AREA27-TM-VL1824-NGI	3	2
AREA27	SWE	SWE-AREA27-TM-VL2440-NGI	15	8
AREA27	SWE	SWE-AREA27-TM-VL40XX-NGI	13	8
AREA37	BGR	BGR-AREA37-DFN-VL0006-NGI	8	8
AREA37	BGR	BGR-AREA37-DFN-VL0612-NGI	9	9
AREA37	BGR	BGR-AREA37-DFN-VL1218-NGI	7	7
AREA37	BGR	BGR-AREA37-DFN-VL1824-NGI	5	5
AREA37	BGR	BGR-AREA37-FPO-VL0006-NGI	5	5
AREA37	BGR	BGR-AREA37-FPO-VL0612-NGI	5	5
AREA37	BGR	BGR-AREA37-HOK-VL0006-NGI	3	3
AREA37	BGR	BGR-AREA37-HOK-VL0612-NGI	4	4
AREA37	BGR	BGR-AREA37-HOK-VL1218-NGI	1	1
AREA37	BGR	BGR-AREA37-PGP-VL0006-NGI	6	6
AREA37	BGR	BGR-AREA37-PGP-VL0612-NGI	7	7
AREA37	BGR	BGR-AREA37-PGP-VL1218-NGI	7	7

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA37	BGR	BGR-AREA37-PMP-VL0006-NGI	6	6
AREA37	BGR	BGR-AREA37-PMP-VL0612-NGI	9	9
AREA37	BGR	BGR-AREA37-PMP-VL1218-NGI	8	8
AREA37	BGR	BGR-AREA37-PMP-VL1824-NGI	8	8
AREA37	BGR	BGR-AREA37-PS-VL0006-NGI	5	5
AREA37	BGR	BGR-AREA37-PS-VL0612-NGI	5	5
AREA37	BGR	BGR-AREA37-TBB-VL0612-NGI	3	3
AREA37	BGR	BGR-AREA37-TBB-VL1218-NGI	4	4
AREA37	BGR	BGR-AREA37-TBB-VL1824-NGI	4	4
AREA37	BGR	BGR-AREA37-TM-VL0612-NGI	7	7
AREA37	BGR	BGR-AREA37-TM-VL1218-NGI	9	9
AREA37	BGR	BGR-AREA37-TM-VL1824-NGI	9	9
AREA37	BGR	BGR-AREA37-TM-VL2440-NGI	9	9
AREA37	CYP	CYP-AREA37-DTS-VL2440-	5	3
AREA37	CYP	CYP-AREA37-PGO-VL0006-	2	1
AREA37	CYP	CYP-AREA37-PGO-VL0612-	2	1
AREA37	CYP	CYP-AREA37-PGP-VL1218-	5	2
AREA37	CYP	CYP-AREA37-PG-VL0006-	2	1
AREA37	CYP	CYP-AREA37-PG-VL0612-	4	2
AREA37	ESP	ESP-AREA37-DFN-VL0612-	20	15
AREA37	ESP	ESP-AREA37-DFN-VL1218-	14	12
AREA37	ESP	ESP-AREA37-DRB-VL0612-	4	2
AREA37	ESP	ESP-AREA37-DRB-VL1218-	5	4
AREA37	ESP	ESP-AREA37-DTS-VL0612-	19	15
AREA37	ESP	ESP-AREA37-DTS-VL1218-	33	27
AREA37	ESP	ESP-AREA37-DTS-VL1824-	44	37
AREA37	ESP	ESP-AREA37-DTS-VL2440-	29	26
AREA37	ESP	ESP-AREA37-FPO-VL0612-	5	5
AREA37	ESP	ESP-AREA37-FPO-VL1218-	5	4
AREA37	ESP	ESP-AREA37-HOK-VL0612-	18	13
AREA37	ESP	ESP-AREA37-HOK-VL1218-	12	8
AREA37	ESP	ESP-AREA37-HOK-VL1824-	4	4
AREA37	ESP	ESP-AREA37-PGO-VL0612-	4	2
AREA37	ESP	ESP-AREA37-PGO-VL1218-	7	4
AREA37	ESP	ESP-AREA37-PGO-VL1824-	8	3
AREA37	ESP	ESP-AREA37-PGO-VL2440-	5	2
AREA37	ESP	ESP-AREA37-PMP-VL0006-	21	15
AREA37	ESP	ESP-AREA37-PMP-VL0612-	34	26
AREA37	ESP	ESP-AREA37-PMP-VL1218-	14	10
AREA37	ESP	ESP-AREA37-PMP-VL1824-	13	11
AREA37	ESP	ESP-AREA37-PMP-VL2440-	14	12
AREA37	ESP	ESP-AREA37-PS-VL0612-	8	6
AREA37	ESP	ESP-AREA37-PS-VL1218-	18	12
AREA37	ESP	ESP-AREA37-PS-VL1824-	12	9

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA37	ESP	ESP-AREA37-PS-VL2440-	5	3
AREA37	ESP	ESP-AREA37-PS-VL40XX-	1	
AREA37	FRA	FRA-AREA37-DFN-VL0006-	9	8
AREA37	FRA	FRA-AREA37-DFN-VL0612-	10	8
AREA37	FRA	FRA-AREA37-DFN-VL1218-	7	7
AREA37	FRA	FRA-AREA37-DRB-VL0612-	7	7
AREA37	FRA	FRA-AREA37-DTS-VL1218-	1	1
AREA37	FRA	FRA-AREA37-DTS-VL1824-	9	8
AREA37	FRA	FRA-AREA37-DTS-VL2440-	9	8
AREA37	FRA	FRA-AREA37-FPO-VL0006-	6	6
AREA37	FRA	FRA-AREA37-FPO-VL0612-	9	8
AREA37	FRA	FRA-AREA37-HOK-VL0006-	5	5
AREA37	FRA	FRA-AREA37-HOK-VL0612-	9	7
AREA37	FRA	FRA-AREA37-HOK-VL1218-	8	6
AREA37	FRA	FRA-AREA37-MGO-VL0612-	1	1
AREA37	FRA	FRA-AREA37-PGO-VL0006-	4	4
AREA37	FRA	FRA-AREA37-PGO-VL0612-	3	3
AREA37	FRA	FRA-AREA37-PGP-VL0006-	4	4
AREA37	FRA	FRA-AREA37-PGP-VL0612-	9	7
AREA37	FRA	FRA-AREA37-PGP-VL1218-	7	6
AREA37	FRA	FRA-AREA37-PMP-VL0612-	9	7
AREA37	FRA	FRA-AREA37-PS-VL0612-	8	8
AREA37	FRA	FRA-AREA37-PS-VL1218-	1	
AREA37	FRA	FRA-AREA37-PS-VL1824-	1	1
AREA37	FRA	FRA-AREA37-TM-VL2440-	4	4
AREA37	GRC	GRC-AREA37-DFN-VL0006-NGI	2	1
AREA37	GRC	GRC-AREA37-DFN-VL0612-NGI	5	3
AREA37	GRC	GRC-AREA37-DFN-VL1218-NGI	4	2
AREA37	GRC	GRC-AREA37-DTS-VL0612-NGI	3	1
AREA37	GRC	GRC-AREA37-DTS-VL1824-NGI	5	3
AREA37	GRC	GRC-AREA37-DTS-VL2440-NGI	4	2
AREA37	GRC	GRC-AREA37-HOK-VL0612-NGI	5	2
AREA37	GRC	GRC-AREA37-HOK-VL1218-NGI	4	2
AREA37	GRC	GRC-AREA37-PS-VL1218-NGI	4	2
AREA37	GRC	GRC-AREA37-PS-VL1824-NGI	5	3
AREA37	GRC	GRC-AREA37-PS-VL2440-NGI	4	2
AREA37	HRV	HRV-AREA37-DFN-VL0006-NGI	16	12
AREA37	HRV	HRV-AREA37-DFN-VL0612-NGI	16	12
AREA37	HRV	HRV-AREA37-DFN-VL1218-NGI	7	5
AREA37	HRV	HRV-AREA37-DRB-VL0612-NGI	7	5
AREA37	HRV	HRV-AREA37-DRB-VL1218-NGI	10	6
AREA37	HRV	HRV-AREA37-DRB-VL1824-NGI	5	3
AREA37	HRV	HRV-AREA37-DTS-VL0612-NGI	15	11
AREA37	HRV	HRV-AREA37-DTS-VL1218-NGI	16	12

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA37	HRV	HRV-AREA37-DTS-VL1824-NGI	12	8
AREA37	HRV	HRV-AREA37-DTS-VL2440-NGI	13	9
AREA37	HRV	HRV-AREA37-FPO-VL0006-NGI	9	6
AREA37	HRV	HRV-AREA37-FPO-VL0612-NGI	10	8
AREA37	HRV	HRV-AREA37-FPO-VL1218-NGI	1	
AREA37	HRV	HRV-AREA37-HOK-VL0006-NGI	13	11
AREA37	HRV	HRV-AREA37-HOK-VL0612-NGI	17	12
AREA37	HRV	HRV-AREA37-HOK-VL1218-NGI	3	2
AREA37	HRV	HRV-AREA37-MGO-VL0006-NGI	13	10
AREA37	HRV	HRV-AREA37-MGO-VL0612-NGI	12	9
AREA37	HRV	HRV-AREA37-MGO-VL1218-NGI	2	1
AREA37	HRV	HRV-AREA37-PGP-VL0006-NGI	10	8
AREA37	HRV	HRV-AREA37-PGP-VL0612-NGI	11	9
AREA37	HRV	HRV-AREA37-PMP-VL0006-NGI	13	10
AREA37	HRV	HRV-AREA37-PMP-VL0612-NGI	13	10
AREA37	HRV	HRV-AREA37-PMP-VL1218-NGI	5	4
AREA37	HRV	HRV-AREA37-PS-VL0006-NGI	1	
AREA37	HRV	HRV-AREA37-PS-VL0612-NGI	14	11
AREA37	HRV	HRV-AREA37-PS-VL1218-NGI	13	10
AREA37	HRV	HRV-AREA37-PS-VL1824-NGI	5	4
AREA37	HRV	HRV-AREA37-PS-VL2440-NGI	5	4
AREA37	ITA	ITA-AREA37-DTS-VL0612-NGI	32	22
AREA37	ITA	ITA-AREA37-DTS-VL1218-NGI	44	33
AREA37	ITA	ITA-AREA37-DTS-VL1824-NGI	45	33
AREA37	ITA	ITA-AREA37-DTS-VL2440-NGI	34	27
AREA37	ITA	ITA-AREA37-HOK-VL1218-NGI	11	8
AREA37	ITA	ITA-AREA37-HOK-VL1824-NGI	3	1
AREA37	ITA	ITA-AREA37-PGP-VL0006-NGI	22	16
AREA37	ITA	ITA-AREA37-PGP-VL0612-NGI	30	22
AREA37	ITA	ITA-AREA37-PGP-VL1218-NGI	31	24
AREA37	ITA	ITA-AREA37-PMP-VL0612-NGI	5	3
AREA37	ITA	ITA-AREA37-PMP-VL1218-NGI	8	4
AREA37	ITA	ITA-AREA37-PS-VL1218-NGI	16	10
AREA37	ITA	ITA-AREA37-PS-VL1824-NGI	5	4
AREA37	ITA	ITA-AREA37-PS-VL2440-NGI	8	7
AREA37	ITA	ITA-AREA37-PS-VL40XX-NGI	9	6
AREA37	ITA	ITA-AREA37-TBB-VL1218-NGI	8	6
AREA37	ITA	ITA-AREA37-TBB-VL1824-NGI	8	6
AREA37	ITA	ITA-AREA37-TBB-VL2440-NGI	10	7
AREA37	ITA	ITA-AREA37-TM-VL1218-NGI	13	11
AREA37	ITA	ITA-AREA37-TM-VL1824-NGI	9	6
AREA37	ITA	ITA-AREA37-TM-VL2440-NGI	6	5
AREA37	MLT	MLT-AREA37-DFN-VL0006-NGI	1	1
AREA37	MLT	MLT-AREA37-DFN-VL0612-NGI	2	2

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
AREA37	MLT	MLT-AREA37-DTS-VL1824-NGI	3	3
AREA37	MLT	MLT-AREA37-DTS-VL2440-NGI	3	3
AREA37	MLT	MLT-AREA37-FPO-VL0006-NGI	1	1
AREA37	MLT	MLT-AREA37-HOK-VL0006-NGI	1	1
AREA37	MLT	MLT-AREA37-HOK-VL0612-NGI	5	3
AREA37	MLT	MLT-AREA37-HOK-VL1218-NGI	4	2
AREA37	MLT	MLT-AREA37-HOK-VL1824-NGI	5	3
AREA37	MLT	MLT-AREA37-MGO-VL0612-NGI	3	2
AREA37	MLT	MLT-AREA37-MGO-VL1218-NGI	4	2
AREA37	MLT	MLT-AREA37-PGP-VL0006-NGI	5	3
AREA37	MLT	MLT-AREA37-PGP-VL0612-NGI	5	3
AREA37	MLT	MLT-AREA37-PMP-VL0006-NGI	2	2
AREA37	MLT	MLT-AREA37-PMP-VL0612-NGI	6	4
AREA37	MLT	MLT-AREA37-PMP-VL1218-NGI	1	1
AREA37	MLT	MLT-AREA37-PMP-VL1824-NGI	2	2
AREA37	MLT	MLT-AREA37-PS-VL1218-NGI	1	1
AREA37	ROU	ROU-AREA37-PG-VL0006-NGI	8	8
AREA37	ROU	ROU-AREA37-PG-VL0612-NGI	9	9
AREA37	ROU	ROU-AREA37-PMP-VL0612-NGI	10	10
AREA37	ROU	ROU-AREA37-PMP-VL1218-NGI	8	8
AREA37	ROU	ROU-AREA37-PMP-VL1824-NGI	4	4
AREA37	ROU	ROU-AREA37-PMP-VL2440-NGI	4	4
AREA37	SVN	SVN-AREA37-DFN-VL0006-NGI	9	7
AREA37	SVN	SVN-AREA37-DFN-VL0612-NGI	11	9
AREA37	SVN	SVN-AREA37-DTS-VL1218-NGI	11	9
AREA37	SVN	SVN-AREA37-PS-VL1218-NGI	8	7
OFR	ESP	ESP-OFR-DTS-VL2440-	7	3
OFR	ESP	ESP-OFR-FPO-VL1012-	3	1
OFR	ESP	ESP-OFR-FPO-VL1218-	3	1
OFR	ESP	ESP-OFR-HOK-VL0010-	5	1
OFR	ESP	ESP-OFR-HOK-VL1012-	4	1
OFR	ESP	ESP-OFR-HOK-VL1218-	6	2
OFR	ESP	ESP-OFR-HOK-VL1824-	5	2
OFR	ESP	ESP-OFR-HOK-VL2440-	4	1
OFR	ESP	ESP-OFR-PGO-VL2440-	15	7
OFR	ESP	ESP-OFR-PGO-VL40XX-	14	7
OFR	ESP	ESP-OFR-PMP-VL0010-	6	2
OFR	ESP	ESP-OFR-PMP-VL1012-	4	1
OFR	ESP	ESP-OFR-PMP-VL1218-	4	1
OFR	ESP	ESP-OFR-PS-VL1012-	4	1
OFR	ESP	ESP-OFR-PS-VL1218-	3	1
OFR	ESP	ESP-OFR-PS-VL40XX-	7	4
OFR	FRA	FRA-OFR-HOK-VL0010-	11	7
OFR	FRA	FRA-OFR-HOK-VL1012-	8	6

AREA	MS	Fleet Segment Code	Number of assessed stocks (2016)	Number of overfished stocks (2016)
OFR	FRA	FRA-OFR-HOK-VL1218-	8	6
OFR	FRA	FRA-OFR-HOK-VL1824-	8	6
OFR	FRA	FRA-OFR-PGP-VL0010-	6	3
OFR	FRA	FRA-OFR-PS-VL40XX-	10	3
OFR	GBR	GBR-OFR-HOK-VL40XX-NGI	4	3
OFR	LTU	LTU-OFR-DTS-VL2440-	1	
OFR	LTU	LTU-OFR-DTS-VL40XX-	1	
OFR	LTU	LTU-OFR-TM-VL40XX-	4	3
OFR	PRT	PRT-OFR-HOK-VL0010-P2	5	1
OFR	PRT	PRT-OFR-HOK-VL1218-P2	4	1
OFR	PRT	PRT-OFR-HOK-VL1824-P2	3	1
OFR	PRT	PRT-OFR-HOK-VL2440-IWE	13	6
OFR	PRT	PRT-OFR-HOK-VL2440-P2	3	1
OFR	PRT	PRT-OFR-HOK-VL40XX-IWE	10	6
OFR	PRT	PRT-OFR-MGP-VL0010-P2	4	1

16 ANNEX IV – BIOLOGICAL INDICATOR STOCK REFERENCE LIST

The reference list shown below is currently used to divide commercial landings data at species level into stocks; see section 3.3 for further details. Stocks that are not divided are not included in the list. The resulting stock ladings data were used in the calculation of the SHI and SAR indicator values for consideration by EWG 18-14.

Species code	Fish stock	Sub region	Splitting values
ANE	ane-gsa06	SA 6	2
ANE	ane-gsa06-GFCM	SA 6	2
ANE	ane-gsa17_18	SA 17	2
ANE	ane-gsa17_18	SA 18	2
ANE	ane-gsa17_18-GFCM	SA 17	2
ANE	ane-gsa17_18-GFCM	SA 18	2
ANF	ank.27.78ab	27.7.B	3.77
ANF	ank.27.78ab	27.7.C	3.77
ANF	ank.27.78ab	27.7.C.1	3.77
ANF	ank.27.78ab	27.7.C.2	3.77
ANF	ank.27.78ab	27.7.D	3.77
ANF	ank.27.78ab	27.7.E	3.77
ANF	ank.27.78ab	27.7.F	3.77
ANF	ank.27.78ab	27.7.G	3.77
ANF	ank.27.78ab	27.7.H	3.77
ANF	ank.27.78ab	27.7.J	3.77
ANF	ank.27.78ab	27.7.J.1	3.77
ANF	ank.27.78ab	27.7.J.2	3.77
ANF	ank.27.78ab	27.7.K	3.77
ANF	ank.27.78ab	27.7.K.1	3.77
ANF	ank.27.78ab	27.7.K.2	3.77
ANF	ank.27.78ab	27.8.A	3.77
ANF	ank.27.78ab	27.8.B	3.77
ANF	ank.27.78ab	27.8.D	3.77
ANF	ank.27.78ab	27.8.D.1	3.77
ANF	ank.27.78ab	27.8.D.2	3.77
ANF	ank.27.8c9a	27.8.C	2.5
ANF	ank.27.8c9a	27.9.A	2.5
ANF	mon.27.78abd	27.7.B	1.36
ANF	mon.27.78abd	27.7.C	1.36
ANF	mon.27.78abd	27.7.C.1	1.36
ANF	mon.27.78abd	27.7.C.2	1.36
ANF	mon.27.78abd	27.7.D	1.36
ANF	mon.27.78abd	27.7.E	1.36
ANF	mon.27.78abd	27.7.F	1.36
ANF	mon.27.78abd	27.7.G	1.36
ANF	mon.27.78abd	27.7.H	1.36
ANF	mon.27.78abd	27.7.J	1.36
ANF	mon.27.78abd	27.7.J.1	1.36
ANF	mon.27.78abd	27.7.J.2	1.36

Species code	Fish stock	Sub region	Splitting values
ANF	mon.27.78abd	27.7.K	1.36
ANF	mon.27.78abd	27.7.K.1	1.36
ANF	mon.27.78abd	27.7.K.2	1.36
ANF	mon.27.78abd	27.8.A	1.36
ANF	mon.27.78abd	27.8.B	1.36
ANF	mon.27.78abd	27.8.D	1.36
ANF	mon.27.78abd	27.8.D.1	1.36
ANF	mon.27.78abd	27.8.D.2	1.36
ANF	mon.27.8c9a	27.8.C	1.66
ANF	mon.27.8c9a	27.9.A	1.66
CAP	cap.27.1-2	27.2.A	3.11
CAP	cap.27.1-2	27.2.A.1	3.11
CAP	cap.27.1-2	27.2.A.2	3.11
CAP	cap.27.2a514	27.2.A	1.47
CAP	cap.27.2a514	27.2.A.1	1.47
CAP	cap.27.2a514	27.2.A.2	1.47
COD	cod.27.1-2	27.1	1.04
COD	cod.27.1-2	27.1.A	1.04
COD	cod.27.1-2	27.1.B	1.04
COD	cod.27.1-2	27.2	1.04
COD	cod.27.1-2	27.2.A	1.04
COD	cod.27.1-2	27.2.A.1	1.04
COD	cod.27.1-2	27.2.A.2	1.04
COD	cod.27.1-2	27.2.B	1.04
COD	cod.27.1-2	27.2.B.1	1.04
COD	cod.27.1-2	27.2.B.2	1.04
COD	cod.27.1-2coast	27.1	25.78
COD	cod.27.1-2coast	27.1.A	25.78
COD	cod.27.1-2coast	27.1.B	25.78
COD	cod.27.1-2coast	27.2	25.78
COD	cod.27.1-2coast	27.2.A	25.78
COD	cod.27.1-2coast	27.2.A.1	25.78
COD	cod.27.1-2coast	27.2.A.2	25.78
COD	cod.27.1-2coast	27.2.B	25.78
COD	cod.27.1-2coast	27.2.B.1	25.78
COD	cod.27.1-2coast	27.2.B.2	25.78
DPS	dps-gsa09	SA 9	2
DPS	dps-gsa09_10_11	SA 10	2
DPS	dps-gsa09_10_11	SA 9	2
DPS	dps-gsa10	SA 10	2
DPS	dps-gsa17_18	SA 17	2
DPS	dps-gsa17_18	SA 18	2
DPS	dps-gsa17_18_19	SA 17	2
DPS	dps-gsa17_18_19	SA 18	2
DPS	dps-gsa17_18_19	SA 19	2
DPS	dps-gsa19	SA 19	2
HER	her.27.1-24a514a	27.4.A	1.67

Species code	Fish stock	Sub region	Splitting values
HER	her.27.1-24a514a	27.5.A	1.09
HER	her.27.1-24a514a	27.5.A.1	1.09
HER	her.27.1-24a514a	27.5.A.2	1.09
HER	her.27.20-24	27.3.A	11.57
HER	her.27.25-2932	27.3.D.28	1.2
HER	her.27.28	27.3.D.28	5.98
HER	her.27.3a47d	27.3.A	1.09
HER	her.27.3a47d	27.4.A	2.5
HER	her.27.5a	27.5.A	12.09
HER	her.27.5a	27.5.A.1	12.09
HER	her.27.5a	27.5.A.2	12.09
HER	her.27.irls	27.7.A	1.32
HER	her.27.nirs	27.7.A	4.16
HKE	hke-gsa01_03	SA 1	2
HKE	hke-gsa01_05_06_07	SA 1	2
HKE	hke-gsa01_05_06_07	SA 5	2
HKE	hke-gsa01_05_06_07	SA 6	2
HKE	hke-gsa01_05_06_07	SA 7	2
HKE	hke-gsa05	SA 5	2
HKE	hke-gsa06	SA 6	2
HKE	hke-gsa07	SA 7	2
HKE	hke-gsa09	SA 9	2
HKE	hke-gsa09_10_11	SA 9	2
HMM	hmm-gsa29	SA 29	2
HMM	hmm-gsa29-GFCM	SA 29	2
LEZ	ldb.27.8c9a	27.8.C	1.23
LEZ	ldb.27.8c9a	27.9.A	1.23
LEZ	meg.27.8c9a	27.8.C	5.28
LEZ	meg.27.8c9a	27.9.A	5.28
MNZ	ank.27.78ab	27.7.B	3.77
MNZ	ank.27.78ab	27.7.C	3.77
MNZ	ank.27.78ab	27.7.C.1	3.77
MNZ	ank.27.78ab	27.7.C.2	3.77
MNZ	ank.27.78ab	27.7.D	3.77
MNZ	ank.27.78ab	27.7.E	3.77
MNZ	ank.27.78ab	27.7.F	3.77
MNZ	ank.27.78ab	27.7.G	3.77
MNZ	ank.27.78ab	27.7.H	3.77
MNZ	ank.27.78ab	27.7.J	3.77
MNZ	ank.27.78ab	27.7.J.1	3.77
MNZ	ank.27.78ab	27.7.J.2	3.77
MNZ	ank.27.78ab	27.7.K	3.77
MNZ	ank.27.78ab	27.7.K.1	3.77
MNZ	ank.27.78ab	27.7.K.2	3.77
MNZ	ank.27.78ab	27.8.A	3.77
MNZ	ank.27.78ab	27.8.B	3.77
MNZ	ank.27.78ab	27.8.D	3.77

Species code	Fish stock	Sub region	Splitting values
MNZ	ank.27.78ab	27.8.D.1	3.77
MNZ	ank.27.78ab	27.8.D.2	3.77
MNZ	ank.27.8c9a	27.8.C	2.5
MNZ	ank.27.8c9a	27.9.A	2.5
MNZ	ank-gsa05	SA 5	2
MNZ	ank-gsa06	SA 6	2
MNZ	mon.27.78abd	27.7.B	1.36
MNZ	mon.27.78abd	27.7.C	1.36
MNZ	mon.27.78abd	27.7.C.1	1.36
MNZ	mon.27.78abd	27.7.C.2	1.36
MNZ	mon.27.78abd	27.7.D	1.36
MNZ	mon.27.78abd	27.7.E	1.36
MNZ	mon.27.78abd	27.7.F	1.36
MNZ	mon.27.78abd	27.7.G	1.36
MNZ	mon.27.78abd	27.7.H	1.36
MNZ	mon.27.78abd	27.7.J	1.36
MNZ	mon.27.78abd	27.7.J.1	1.36
MNZ	mon.27.78abd	27.7.J.2	1.36
MNZ	mon.27.78abd	27.7.K	1.36
MNZ	mon.27.78abd	27.7.K.1	1.36
MNZ	mon.27.78abd	27.7.K.2	1.36
MNZ	mon.27.78abd	27.8.A	1.36
MNZ	mon.27.78abd	27.8.B	1.36
MNZ	mon.27.78abd	27.8.D	1.36
MNZ	mon.27.78abd	27.8.D.1	1.36
MNZ	mon.27.78abd	27.8.D.2	1.36
MNZ	mon.27.8c9a	27.8.C	1.66
MNZ	mon.27.8c9a	27.9.A	1.66
MNZ	mon-gsa01_05_06_07	SA 5	2
MNZ	mon-gsa01_05_06_07	SA 6	2
MON	ank.27.78ab	27.7.B	3.77
MON	ank.27.78ab	27.7.C	3.77
MON	ank.27.78ab	27.7.C.1	3.77
MON	ank.27.78ab	27.7.C.2	3.77
MON	ank.27.78ab	27.7.D	3.77
MON	ank.27.78ab	27.7.E	3.77
MON	ank.27.78ab	27.7.F	3.77
MON	ank.27.78ab	27.7.G	3.77
MON	ank.27.78ab	27.7.H	3.77
MON	ank.27.78ab	27.7.J	3.77
MON	ank.27.78ab	27.7.J.1	3.77
MON	ank.27.78ab	27.7.J.2	3.77
MON	ank.27.78ab	27.7.K	3.77
MON	ank.27.78ab	27.7.K.1	3.77
MON	ank.27.78ab	27.7.K.2	3.77

Species code	Fish stock	Sub region	Splitting values
MON	ank.27.78ab	27.8.A	3.77
MON	ank.27.78ab	27.8.B	3.77
MON	ank.27.78ab	27.8.D	3.77
MON	ank.27.78ab	27.8.D.1	3.77
MON	ank.27.78ab	27.8.D.2	3.77
MON	mon.27.78abd	27.7.B	1.36
MON	mon.27.78abd	27.7.C	1.36
MON	mon.27.78abd	27.7.C.1	1.36
MON	mon.27.78abd	27.7.C.2	1.36
MON	mon.27.78abd	27.7.D	1.36
MON	mon.27.78abd	27.7.E	1.36
MON	mon.27.78abd	27.7.F	1.36
MON	mon.27.78abd	27.7.G	1.36
MON	mon.27.78abd	27.7.H	1.36
MON	mon.27.78abd	27.7.J	1.36
MON	mon.27.78abd	27.7.J.1	1.36
MON	mon.27.78abd	27.7.J.2	1.36
MON	mon.27.78abd	27.7.K	1.36
MON	mon.27.78abd	27.7.K.1	1.36
MON	mon.27.78abd	27.7.K.2	1.36
MON	mon.27.78abd	27.8.A	1.36
MON	mon.27.78abd	27.8.B	1.36
MON	mon.27.78abd	27.8.D	1.36
MON	mon.27.78abd	27.8.D.1	1.36
MON	mon.27.78abd	27.8.D.2	1.36
MTS	mts-gsa17	SA 17	2
MTS	mts-gsa17_18	SA 17	2
MTS	mts-gsa17_18	SA 18	2
MTS	mts-gsa18	SA 18	2
MUT	mut-gsa17	SA 17	2
MUT	mut-gsa17_18	SA 17	2
MUT	mut-gsa17_18	SA 18	2
MUT	mut-gsa18	SA 18	2
NEP	nep.fu.10	27.4.A	258.64
NEP	nep.fu.11	27.6.A	4.13
NEP	nep.fu.12	27.6.A	3.44
NEP	nep.fu.13	27.6.A	2.14
NEP	nep.fu.14	27.7.A	20.45
NEP	nep.fu.15	27.7.A	1.13
NEP	nep.fu.16	27.7.B	1.63
NEP	nep.fu.16	27.7.J	1.48
NEP	nep.fu.16	27.7.J.1	1.48
NEP	nep.fu.16	27.7.J.2	1.48
NEP	nep.fu.17	27.7.B	2.58
NEP	nep.fu.19	27.7.A	15.92
NEP	nep.fu.19	27.7.G	7.63
NEP	nep.fu.19	27.7.J	3.1

Species code	Fish stock	Sub region	Splitting values
NEP	nep.fu.19	27.7.J.1	3.1
NEP	nep.fu.19	27.7.J.2	3.1
NEP	nep.fu.2021	27.7.G	2.82
NEP	nep.fu.22	27.7.G	1.94
NEP	nep.fu.2829	27.9.A	1.35
NEP	nep.fu.30	27.9.A	3.86
NEP	nep.fu.32	27.4.A	37.88
NEP	nep.fu.33	27.4.B	6.24
NEP	nep.fu.34	27.4.B	14.12
NEP	nep.fu.5	27.4.B	4.88
NEP	nep.fu.6	27.4.B	3.51
NEP	nep.fu.7	27.4.A	1.24
NEP	nep.fu.8	27.4.B	3.58
NEP	nep.fu.9	27.4.A	6.18
NOP	nop.27.3a4	27.3.A	1.57
NOP	nop.27.3a4	27.4.A	1.57
NOP	nop.27.3a4	27.4.B	1.57
NOP	nop.27.3a4	27.4.C	1.57
NOP	nop-34-june	27.3.A	2.75
NOP	nop-34-june	27.4.A	2.75
NOP	nop-34-june	27.4.B	2.75
NOP	nop-34-june	27.4.C	2.75
PIL	pil-gsa01	SA 1	2
PIL	pil-gsa01-03	SA 1	2
PIL	pil-gsa06	SA 6	2
PIL	pil-gsa06-GFCM	SA 6	2
PIL	pil-gsa17_18	SA 17	2
PIL	pil-gsa17_18	SA 18	2
PIL	pil-gsa17_18-GFCM	SA 17	2
PIL	pil-gsa17_18-GFCM	SA 18	2
REB	reb.2127.dp	21.1	1.08
REB	reb.2127.dp	21.2	1.08
REB	reb.2127.dp	27.12.A	1.08
REB	reb.2127.dp	27.12.A.1	1.08
REB	reb.2127.dp	27.12.A.2	1.08
REB	reb.2127.dp	27.12.A.3	1.08
REB	reb.2127.dp	27.12.A.4	1.08
REB	reb.2127.dp	27.12.B	1.08
REB	reb.2127.dp	27.12.C	1.08
REB	reb.2127.dp	27.14.A	1.45
REB	reb.2127.dp	27.14.B	1.63
REB	reb.2127.dp	27.14.B.1	1.63
REB	reb.2127.dp	27.14.B.2	1.63
REB	reb.2127.dp	27.5.A	1.45
REB	reb.2127.dp	27.5.A.1	1.45
REB	reb.2127.dp	27.5.A.2	1.45
REB	reb.2127.dp	27.5.B	1.08

Species code	Fish stock	Sub region	Splitting values
REB	reb.2127.dp	27.5.B.1	1.08
REB	reb.2127.dp	27.5.B.1.A	1.08
REB	reb.2127.dp	27.5.B.1.B	1.08
REB	reb.2127.dp	27.5.B.2	1.08
REB	reb.2127.sp	21.1	13.36
REB	reb.2127.sp	21.2	13.36
REB	reb.2127.sp	27.12.A	13.36
REB	reb.2127.sp	27.12.A.1	13.36
REB	reb.2127.sp	27.12.A.2	13.36
REB	reb.2127.sp	27.12.A.3	13.36
REB	reb.2127.sp	27.12.A.4	13.36
REB	reb.2127.sp	27.12.B	13.36
REB	reb.2127.sp	27.12.C	13.36
REB	reb.2127.sp	27.14.A	17.89
REB	reb.2127.sp	27.14.B	20.17
REB	reb.2127.sp	27.14.B.1	20.17
REB	reb.2127.sp	27.14.B.2	20.17
REB	reb.2127.sp	27.5.A	17.89
REB	reb.2127.sp	27.5.A.1	17.89
REB	reb.2127.sp	27.5.A.2	17.89
REB	reb.2127.sp	27.5.B	13.36
REB	reb.2127.sp	27.5.B.1	13.36
REB	reb.2127.sp	27.5.B.1.A	13.36
REB	reb.2127.sp	27.5.B.1.B	13.36
REB	reb.2127.sp	27.5.B.2	13.36
REB	reb.27.14b	27.14.B	8.85
REB	reb.27.14b	27.14.B.1	8.85
REB	reb.27.14b	27.14.B.2	8.85
REB	reb.27.5a14	27.14.A	3.95
REB	reb.27.5a14	27.14.B	4.45
REB	reb.27.5a14	27.14.B.1	4.45
REB	reb.27.5a14	27.14.B.2	4.45
REB	reb.27.5a14	27.5.A	3.95
REB	reb.27.5a14	27.5.A.1	3.95
REB	reb.27.5a14	27.5.A.2	3.95
RED	reb.2127.dp	21.1	1.08
RED	reb.2127.dp	21.2	1.08
RED	reb.2127.dp	27.12.A	2.77
RED	reb.2127.dp	27.12.A.1	2.77
RED	reb.2127.dp	27.12.A.2	2.77
RED	reb.2127.dp	27.12.A.3	2.77
RED	reb.2127.dp	27.12.A.4	2.77
RED	reb.2127.dp	27.12.B	2.77
RED	reb.2127.dp	27.12.C	2.77
RED	reb.2127.dp	27.14.A	2.77
RED	reb.2127.dp	27.14.B	2.77
RED	reb.2127.dp	27.14.B.1	2.77

Species code	Fish stock	Sub region	Splitting values
RED	reb.2127.dp	27.14.B.2	2.77
RED	reb.2127.dp	27.5.A	2.77
RED	reb.2127.dp	27.5.A.1	2.77
RED	reb.2127.dp	27.5.A.2	2.77
RED	reb.2127.dp	27.5.B	2.77
RED	reb.2127.dp	27.5.B.1	1.08
RED	reb.2127.dp	27.5.B.1.A	2.77
RED	reb.2127.dp	27.5.B.1.B	2.77
RED	reb.2127.dp	27.5.B.2	2.77
RED	reb.2127.sp	21.1	13.36
RED	reb.2127.sp	21.2	13.36
RED	reb.2127.sp	27.12.A	34.26
RED	reb.2127.sp	27.12.A.1	34.26
RED	reb.2127.sp	27.12.A.2	34.26
RED	reb.2127.sp	27.12.A.3	34.26
RED	reb.2127.sp	27.12.A.4	34.26
RED	reb.2127.sp	27.12.B	34.26
RED	reb.2127.sp	27.12.C	34.26
RED	reb.2127.sp	27.14.A	34.26
RED	reb.2127.sp	27.14.B	34.26
RED	reb.2127.sp	27.14.B.1	34.26
RED	reb.2127.sp	27.14.B.2	34.26
RED	reb.2127.sp	27.5.A	34.26
RED	reb.2127.sp	27.5.A.1	34.26
RED	reb.2127.sp	27.5.A.2	34.26
RED	reb.2127.sp	27.5.B	34.26
RED	reb.2127.sp	27.5.B.1	13.36
RED	reb.2127.sp	27.5.B.1.A	34.26
RED	reb.2127.sp	27.5.B.1.B	34.26
RED	reb.2127.sp	27.5.B.2	34.26
RED	reb.27.1-2	27.1	1.34
RED	reb.27.1-2	27.1.A	1.34
RED	reb.27.1-2	27.1.B	1.34
RED	reb.27.1-2	27.2.A	1.34
RED	reb.27.1-2	27.2.A.1	1.34
RED	reb.27.1-2	27.2.A.2	1.34
RED	reb.27.1-2	27.2.B	1.34
RED	reb.27.1-2	27.2.B.1	1.34
RED	reb.27.1-2	27.2.B.2	1.34
RED	reg.27.1-2	27.1	3.95
RED	reg.27.1-2	27.1.A	3.95
RED	reg.27.1-2	27.1.B	3.95
RED	reg.27.1-2	27.2.A	3.95
RED	reg.27.1-2	27.2.A.1	3.95
RED	reg.27.1-2	27.2.A.2	3.95
RED	reg.27.1-2	27.2.B	3.95
RED	reg.27.1-2	27.2.B.1	3.95

Species code	Fish stock	Sub region	Splitting values
RED	reg.27.1-2	27.2.B.2	3.95
RED	reg.27.561214	27.12.A	1.64
RED	reg.27.561214	27.12.A.1	1.64
RED	reg.27.561214	27.12.A.2	1.64
RED	reg.27.561214	27.12.A.3	1.64
RED	reg.27.561214	27.12.A.4	1.64
RED	reg.27.561214	27.12.B	1.64
RED	reg.27.561214	27.12.C	1.64
RED	reg.27.561214	27.14.A	1.64
RED	reg.27.561214	27.14.B	1.64
RED	reg.27.561214	27.14.B.1	1.64
RED	reg.27.561214	27.14.B.2	1.64
RED	reg.27.561214	27.5.A	1.64
RED	reg.27.561214	27.5.A.1	1.64
RED	reg.27.561214	27.5.A.2	1.64
RED	reg.27.561214	27.5.B	1.64
RED	reg.27.561214	27.5.B.1.A	1.64
RED	reg.27.561214	27.5.B.1.B	1.64
RED	reg.27.561214	27.5.B.2	1.64
RNG	rng.27.1245a8914ab	27.14.B	22.89
RNG	rng.27.1245a8914ab	27.5.A	22.89
RNG	rng.27.5a10b12ac14b	27.14.B	1.05
RNG	rng.27.5a10b12ac14b	27.5.A	1.05
SAN	san.sa.1r	27.4.B	1.71
SAN	san.sa.1r	27.4.C	1.27
SAN	san.sa.2r	27.4.B	6.33
SAN	san.sa.2r	27.4.C	4.7
SAN	san.sa.3r	27.3.A	1
SAN	san.sa.3r	27.4.A	1.07
SAN	san.sa.3r	27.4.B	4.17
SAN	san.sa.4	27.4.A	15
SAN	san.sa.4	27.4.B	58.34
SAN	san.sa.6	27.3.A	429.09
TUR	tur-gsa29	SA 29	2
TUR	tur-gsa29-GFCM	SA 29	2
WHG	whg-gsa29	SA 29	2
WHG	whg-gsa29-GFCM	SA 29	2

17 Annex V – SAR Stock Selection

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2009	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2009	Alopidae	BTH, ALV, PTH, THR	51, 57	FALSE	c
2009	American Plaice	PLA	American plaice in Division 3M	TRUE	a
2009	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	TRUE	a
2009	Anchovy	ANE	Anchovy in GSA 7	FALSE	b
2009	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	c
2009	Angel shark	AGN	Angel Shark in Mediteranea	FALSE	cd
2009	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2009	atlantic salmon	SAL	Subdivision 32	TRUE	b
2009	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2009	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2009	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2009	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2009	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	TRUE	b
2009	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2009	Bigeye Thresher Shark	BTH	all waters	FALSE	c
2009	Black dogfish	CFB		FALSE	c
2009	Blackchin guitarfish	RBC	37	FALSE	c
2009	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2009	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	TRUE	b
2009	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	TRUE	b
2009	bluefin tuna	BFT	Mediterranean	FALSE	b
2009	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2009	Bluntnose sixgill shark	SBL		FALSE	c
2009	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	FALSE	d
2009	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	TRUE	b
2009	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2009	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2009	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2009	cod	COD	Cod (Gadus morhua) in	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			divisions 7.e–k (western English Channel and southern Celtic Seas)		
2009	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2009	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2009	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2009	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2009	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2009	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2009	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2009	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2009	Common guitarfish	RBX	37	FALSE	c
2009	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	FALSE	c
2009	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	TRUE	b
2009	Cunene horse	HMZ	all 34	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	mackerel				
2009	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2009	Deep-water catsharks	API		FALSE	
2009	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2009	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2009	Frilled shark	HXC		FALSE	c
2009	Giant Manta	RMB	all waters	TRUE	c
2009	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2009	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	FALSE	c
2009	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	FALSE	d
2009	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2009	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2009	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2009	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	FALSE	c
2009	Guitarfishes	GTF, RHH, RBE, RBC,GUD,	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
		GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE			
2009	Gulper Shark	CWO		FALSE	c
2009	haddock	HAD	III, IV, VIa	FALSE	a
2009	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2009	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	ab
2009	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	d
2009	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	c
2009	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2009	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	FALSE	a
2009	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2009	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	FALSE	c
2009	Leaf-scale gluper shark	GUC	ICES advice on fishing opportunities	TRUE	c
2009	Longnose velvet dogfish	CYP		FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2009	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	FALSE	d
2009	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	TRUE	a
2009	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2009	Mousse catshark	GAM		FALSE	c
2009	Nephrops	NEP	VIIIde	TRUE	b
2009	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2009	Nephrops	NEP	VIIIc (FU25 31)	TRUE	b
2009	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	a
2009	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	FALSE	a
2009	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2009	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	FALSE	c
2009	Oceanic White Tip	OSC	all waters	FALSE	cd
2009	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	FALSE	b
2009	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2009	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2009	plaice	PLE	Plaice (Pleuronectes	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			platessa) in Division 7.d (eastern English Channel)		
2009	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2009	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	FALSE	b
2009	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	c
2009	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2009	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2009	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2009	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2009	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	FALSE	b
2009	Sailfin roughshark	OXN		FALSE	c
2009	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2009	saithe	POK	I, II	FALSE	a
2009	saithe	POK	IIIa, IV, VI	FALSE	a
2009	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	FALSE	d
2009	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	a
2009	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2009	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2009	sandeel	SAN	Central Eastern North Sea (SA 3)	TRUE	a
2009	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2009	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	TRUE	b
2009	sandeel	SAN	Northern and Central North Sea	TRUE	a
2009	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	FALSE	c
2009	Sardine	PIL	27.8c, 27.9a	TRUE	b
2009	Sardine	PIL	GSA 6	FALSE	b
2009	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	FALSE	cd
2009	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2009	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	FALSE	c
2009	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	FALSE	d
2009	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2009	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	FALSE	c
2009	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2009	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	FALSE	c
2009	Smooth	SPZ	Smooth Hammerhead	FALSE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	Hammerhead Shark		(Sphyrna zygaena) Shark world out of Mediterranea		
2009	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2009	Smoothback angelshark	SUT	27.9, 34, 37, 47	FALSE	d
2009	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2009	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	TRUE	a
2009	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2009	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2009	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2009	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	FALSE	d
2009	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	c
2009	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2009	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2009	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2009	Starry Ray	RJR	IIa, IIIa, IV, VIId	FALSE	c
2009	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	FALSE	b
2009	Swordfish	SWO	all 37	FALSE	a
2009	Thornback Ray	RJC	27.3a	FALSE	c
2009	Tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2009	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2009	Turbot	TUR	Black Sea	TRUE	bc
2009	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	FALSE	b
2009	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	c
2009	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2009	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2009	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2009	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b
2009	Velvet belly	ETX		FALSE	c
2009	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2009	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2009	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	c
2009	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2009	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2009	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	a
2009	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	a
2010	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2010	Alopidae	BTH, ALV, PTH, THR	51, 57	FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2010	American Plaice	PLA	American plaice in Division 3M	TRUE	a
2010	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2010	Anchovy	ANE	Anchovy in GSA 7	FALSE	b
2010	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	c
2010	Angel shark	AGN	Angel Shark in Mediteranea	FALSE	cd
2010	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2010	atlantic salmon	SAL	Subdivision 32	TRUE	b
2010	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	FALSE	b
2010	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2010	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2010	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2010	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	TRUE	b
2010	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a
2010	Bigeye Thresher Shark	BTH	all waters	FALSE	c
2010	Black dogfish	CFB		FALSE	c
2010	Blackchin guitarfish	RBC	37	FALSE	c
2010	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			divisions 3.a and 4.a (other areas)		
2010	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	TRUE	b
2010	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	TRUE	b
2010	bluefin tuna	BFT	Mediterranean	FALSE	b
2010	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2010	Bluntnose sixgill shark	SBL		FALSE	c
2010	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	FALSE	d
2010	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	TRUE	b
2010	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2010	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2010	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2010	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	TRUE	a
2010	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2010	cod	COD	Cod (Gadus morhua) in	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Division 6.a (West of Scotland)		
2010	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2010	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2010	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2010	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2010	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2010	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2010	Common guitarfish	RBX	37	FALSE	c
2010	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	FALSE	c
2010	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	TRUE	b
2010	Cunene horse mackerel	HMZ	all 34	FALSE	b
2010	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2010	Deep-water catsharks	API		FALSE	

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2010	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2010	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2010	Frilled shark	HXC		FALSE	c
2010	Giant Manta	RMB	all waters	TRUE	c
2010	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2010	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	FALSE	c
2010	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	FALSE	d
2010	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2010	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2010	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2010	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	FALSE	c
2010	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2010	Gulper Shark	CWO		FALSE	c
2010	haddock	HAD	III, IV, VIa	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2010	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2010	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	ab
2010	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	d
2010	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	c
2010	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2010	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	FALSE	a
2010	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2010	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2010	Leaf-scale gluper shark	GUC	North Eat Atlantic 23	TRUE	c
2010	Longnose velvet dogfish	CYP		TRUE	c
2010	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	FALSE	d
2010	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Atlantic Iberian waters)		
2010	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2010	Mousse catshark	GAM		FALSE	c
2010	Nephrops	NEP	VIIIde	TRUE	b
2010	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2010	Nephrops	NEP	VIIIc (FU25 31)	TRUE	b
2010	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	FALSE	a
2010	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	FALSE	a
2010	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2010	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	c
2010	Oceanic White Tip	OSC	all waters	FALSE	cd
2010	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2010	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2010	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2010	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	TRUE	a
2010	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2010	Pollack	POL	IV (North Sea) and	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Division IIIa (Skagerrak–Kattegat)		
2010	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	c
2010	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2010	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2010	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2010	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2010	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	FALSE	b
2010	Sailfin roughshark	OXN		FALSE	c
2010	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2010	saithe	POK	I, II	FALSE	a
2010	saithe	POK	IIIa, IV, VI	FALSE	a
2010	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	FALSE	d
2010	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	a
2010	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2010	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2010	sandeel	SAN	Central Eastern North Sea (SA 3)	FALSE	a
2010	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2010	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c,	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Sandeel Area 1r (central and southern North Sea, Dogger Bank)		
2010	sandeel	SAN	Northern and Central North Sea	TRUE	a
2010	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	FALSE	c
2010	Sardine	PIL	27.8c, 27.9a	TRUE	b
2010	Sardine	PIL	GSA 6	TRUE	b
2010	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	FALSE	cd
2010	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2010	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	FALSE	c
2010	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	FALSE	d
2010	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2010	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	FALSE	c
2010	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2010	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	FALSE	c
2010	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	FALSE	d
2010	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2010	Smoothback angelshark	SUT	27.9, 34, 37, 47	FALSE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2010	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2010	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	FALSE	a
2010	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2010	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2010	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2010	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	FALSE	d
2010	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2010	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2010	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2010	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2010	Starry Ray	RJR	IIa, IIIa, IV, VIId	FALSE	c
2010	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	FALSE	b
2010	Swordfish	SWO	all 37	FALSE	a
2010	Thornback Ray	RJC	27.3a	FALSE	c
2010	tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2010	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	FALSE	c
2010	Turbot	TUR	Black Sea	TRUE	bc
2010	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	FALSE	b
2010	Undulate ray	RJU	Undulate Ray inVIId-e,	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			English Channel		
2010	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2010	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2010	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2010	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b
2010	Velvet belly	ETX		FALSE	c
2010	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2010	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2010	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	c
2010	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2010	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2010	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	a
2010	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	a
2011	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2011	Alopidae	BTH, ALV, PTH, THR	51, 57	FALSE	c
2011	American Plaice	PLA	American plaice in Division 3M	TRUE	a
2011	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2011	Anchovy	ANE	Anchovy in GSA 7	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2011	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	c
2011	Angel shark	AGN	Angel Shark in Mediteranea	FALSE	cd
2011	atlantic salmon	SAL	Subdivisions 22-31	TRUE	b
2011	atlantic salmon	SAL	Subdivision 32	TRUE	b
2011	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2011	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2011	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2011	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2011	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2011	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a
2011	Bigeye Thresher Shark	BTH	all waters	FALSE	c
2011	Black dogfish	CFB		FALSE	c
2011	Blackchin guitarfish	RBC	37	FALSE	c
2011	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2011	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2011	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	TRUE	b
2011	bluefin tuna	BFT	Mediterranean	FALSE	b
2011	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2011	Bluntnose sixgill shark	SBL		FALSE	c
2011	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	FALSE	d
2011	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	TRUE	b
2011	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2011	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2011	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2011	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	FALSE	a
2011	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2011	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2011	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2011	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2011	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2011	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2011	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2011	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2011	Common guitarfish	RBX	37	FALSE	c
2011	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	FALSE	c
2011	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	TRUE	b
2011	Cunene horse mackerel	HMZ	all 34	FALSE	b
2011	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2011	Deep-water catsharks	API		FALSE	
2011	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2011	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2011	Frilled shark	HXC		FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2011	Giant Manta	RMB	all waters	TRUE	c
2011	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2011	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	FALSE	c
2011	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	FALSE	d
2011	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2011	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2011	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2011	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	FALSE	c
2011	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2011	Gulper Shark	CWO		FALSE	c
2011	haddock	HAD	III, IV, VIa	FALSE	a
2011	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2011	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division	FALSE	ab

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			6.b (Rockall)		
2011	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	d
2011	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	c
2011	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2011	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	FALSE	a
2011	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2011	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2011	Leaf-scale gluper shark	GUC	North Eat Atlantic 24	TRUE	c
2011	Longnose velvet dogfish	CYP		TRUE	c
2011	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	FALSE	d
2011	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	FALSE	a
2011	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2011	Mousse catshark	GAM		FALSE	c
2011	Nephrops	NEP	VIIIde	TRUE	b
2011	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2011	Nephrops	NEP	VIIIc (FU25 31)	TRUE	b
2011	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	a
2011	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	FALSE	a
2011	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2011	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	c
2011	Oceanic White Tip	OSC	all waters	FALSE	cd
2011	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2011	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2011	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2011	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2011	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2011	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	FALSE	b
2011	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	c
2011	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2011	Red seabream	SBR	Blackspot seabream	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)		
2011	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2011	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2011	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	FALSE	b
2011	Sailfin roughshark	OXN		FALSE	c
2011	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2011	saithe	POK	I, II	FALSE	a
2011	saithe	POK	IIIa, IV, VI	FALSE	a
2011	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	FALSE	d
2011	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	FALSE	a
2011	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2011	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2011	sandeel	SAN	Central Eastern North Sea (SA 3)	TRUE	b
2011	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2011	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	FALSE	a
2011	sandeel	SAN	Northern and Central North Sea	FALSE	b
2011	Sandy ray	RJI	Sandy ray (Leucoraja	FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			circularis) in Mediteranea 37		
2011	Sardine	PIL	27.8c, 27.9a	TRUE	b
2011	Sardine	PIL	GSA 6	FALSE	b
2011	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	FALSE	cd
2011	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2011	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	FALSE	c
2011	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	FALSE	d
2011	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2011	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2011	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2011	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	FALSE	c
2011	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	FALSE	d
2011	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2011	Smoothback angelshark	SUT	27.9, 34, 37, 47	FALSE	d
2011	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2011	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	FALSE	a
2011	Sole	SOL	Sole (Solea solea) in	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			subdivisions 20–24		
2011	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2011	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2011	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	FALSE	d
2011	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2011	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2011	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2011	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2011	Starry Ray	RJR	IIa, IIIa, IV, VIId	FALSE	c
2011	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	FALSE	b
2011	Swordfish	SWO	all 37	FALSE	a
2011	Thornback Ray	RJC	27.3a	FALSE	c
2011	tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2011	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	FALSE	c
2011	Turbot	TUR	Black Sea	TRUE	abc
2011	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	FALSE	b
2011	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	c
2011	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2011	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and	TRUE	bc

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			southwest of Ireland)		
2011	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2011	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b
2011	Velvet belly	ETX		FALSE	c
2011	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2011	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2011	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	c
2011	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2011	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	a
2011	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	a
2011	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	a
2012	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2012	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2012	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2012	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2012	Anchovy	ANE	Anchovy in GSA 7	FALSE	b
2012	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2012	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2012	atlantic salmon	SAL	Subdivisions 22-31	TRUE	b
2012	atlantic salmon	SAL	Subdivision 32	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2012	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	FALSE	b
2012	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2012	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2012	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2012	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2012	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a
2012	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2012	Black dogfish	CFB		FALSE	c
2012	Blackchin guitarfish	RBC	37	TRUE	c
2012	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2012	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	TRUE	b
2012	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2012	bluefin tuna	BFT	Mediterranean	FALSE	b
2012	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2012	Bluntnose sixgill shark	SBL		FALSE	c
2012	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	FALSE	d
2012	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	FALSE	b
2012	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2012	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2012	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2012	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	FALSE	a
2012	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2012	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2012	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2012	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2012	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2012	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2012	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2012	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2012	Common guitarfish	RBX	37	TRUE	c
2012	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	TRUE	c
2012	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	TRUE	b
2012	Cunene horse mackerel	HMZ	all 34	FALSE	b
2012	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2012	Deep-water catsharks	API		FALSE	
2012	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2012	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2012	Frilled shark	HXC		FALSE	c
2012	Giant Manta	RMB	all waters	TRUE	c
2012	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2012	Great	SPK	Great Hammerhead	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	Hammerhead Shark		(Sphyrna mokarran) Shark in Mediterranea		
2012	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	FALSE	d
2012	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2012	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2012	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	TRUE	b
2012	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2012	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2012	Gulper Shark	CWO		TRUE	c
2012	haddock	HAD	III, IV, VIa	FALSE	a
2012	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2012	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	ab
2012	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	d
2012	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out	FALSE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			of Mediterranea		
2012	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2012	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	FALSE	a
2012	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2012	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2012	Leaf-scale gluper shark	GUC	North Eat Atlantic 25	TRUE	c
2012	Longnose velvet dogfish	CYP		TRUE	c
2012	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	TRUE	c
2012	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	FALSE	a
2012	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2012	Mousse catshark	GAM		FALSE	c
2012	Nephrops	NEP	VIIIde	TRUE	b
2012	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2012	Nephrops	NEP	VIIIc (FU25 31)	TRUE	b
2012	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			the Flemish Cap (NAFO 3M)		
2012	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	FALSE	a
2012	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	TRUE	a
2012	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	c
2012	Oceanic White Tip	OSC	all waters	TRUE	cd
2012	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2012	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2012	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2012	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2012	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2012	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	FALSE	b
2012	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	c
2012	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2012	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2012	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			the Northeast Atlantic		
2012	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2012	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	FALSE	b
2012	Sailfin roughshark	OXN		FALSE	c
2012	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2012	saithe	POK	I, II	FALSE	a
2012	saithe	POK	IIIa, IV, VI	FALSE	a
2012	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	FALSE	d
2012	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	b
2012	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2012	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2012	sandeel	SAN	Central Eastern North Sea (SA 3)	TRUE	b
2012	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2012	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	FALSE	a
2012	sandeel	SAN	Northern and Central North Sea	TRUE	b
2012	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2012	Sardine	PIL	27.8c, 27.9a	TRUE	b
2012	Sardine	PIL	GSA 6	FALSE	b
2012	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2012	Sawfishes	RPA, RPC,	27.9, 31, 34, 37, 41, 51,	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
		RPM, RPP, RPZ, SAW	57		
2012	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2012	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	FALSE	d
2012	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2012	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2012	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2012	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	TRUE	c
2012	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	FALSE	d
2012	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2012	Smoothback angelshark	SUT	27.9, 34, 37, 47	FALSE	cd
2012	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2012	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	FALSE	a
2012	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2012	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2012	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2012	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	FALSE	d
2012	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2012	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2012	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	TRUE	a
2012	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2012	Starry Ray	RJR	IIa, IIIa, IV, VIId	FALSE	c
2012	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	FALSE	b
2012	Swordfish	SWO	all 37	FALSE	a
2012	Thornback Ray	RJC	27.3a	FALSE	c
2012	tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2012	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2012	Turbot	TUR	Black Sea	TRUE	bc
2012	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	FALSE	b
2012	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	c
2012	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2012	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2012	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2012	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2012	Velvet belly	ETX		FALSE	c
2012	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2012	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2012	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	c
2012	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2012	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2012	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	a
2012	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	a
2013	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2013	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2013	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2013	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2013	Anchovy	ANE	Anchovy in GSA 7	FALSE	b
2013	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2013	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2013	atlantic salmon	SAL	Subdivisions 22-31	TRUE	b
2013	atlantic salmon	SAL	Subdivision 32	TRUE	b
2013	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2013	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2013	Barbel Sturgeon	AAN	Barbel sturgeon	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(Acipenser nudiventris) in Mediterranea and Black Sea 37		
2013	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2013	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2013	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a
2013	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2013	Black dogfish	CFB		FALSE	c
2013	Blackchin guitarfish	RBC	37	TRUE	c
2013	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2013	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	FALSE	b
2013	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	FALSE	b
2013	bluefin tuna	BFT	Mediterranean	FALSE	b
2013	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2013	Bluntnose sixgill shark	SBL		FALSE	c
2013	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	FALSE	d
2013	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)		
2013	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2013	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2013	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2013	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	FALSE	a
2013	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2013	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2013	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2013	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2013	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2013	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2013	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2013	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2013	Common	RBX	37	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	guitarfish				
2013	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	TRUE	c
2013	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	FALSE	b
2013	Cunene horse mackerel	HMZ	all 34	FALSE	b
2013	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2013	Deep-water catsharks	API	Black dogfish	FALSE	
2013	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2013	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2013	Frilled shark	HXC		FALSE	c
2013	Giant Manta	RMB	all waters	TRUE	c
2013	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2013	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	TRUE	c
2013	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	FALSE	d
2013	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2013	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2013	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2013	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2013	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2013	Gulper Shark	CWO		TRUE	c
2013	haddock	HAD	III, IV, VIa	FALSE	a
2013	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2013	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	TRUE	a
2013	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	d
2013	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	FALSE	c
2013	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2013	Herring	HER	Herring (Clupea	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)		
2013	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2013	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2013	Leaf-scale gluper shark	GUC	North Eat Atlantic 26	TRUE	c
2013	Longnose velvet dogfish	CYP		TRUE	c
2013	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	TRUE	c
2013	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	FALSE	a
2013	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2013	Mousse catshark	GAM		FALSE	c
2013	Nephrops	NEP	VIIIde	TRUE	b
2013	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2013	Nephrops	NEP	VIIIc (FU 25+ 31)	TRUE	b
2013	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	ab
2013	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	TRUE	ab
2013	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)		
2013	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	c
2013	Oceanic White Tip	OSC	all waters	TRUE	cd
2013	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2013	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2013	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2013	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2013	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2013	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	TRUE	b
2013	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	cd
2013	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2013	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2013	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2013	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2013	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			3.a (Skagerrak and Kattegat)		
2013	Sailfin roughshark	OXN		FALSE	c
2013	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2013	saithe	POK	I, II	FALSE	a
2013	saithe	POK	IIIa, IV, VI	FALSE	a
2013	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	FALSE	d
2013	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	a
2013	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2013	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2013	sandeel	SAN	Central Eastern North Sea (SA 3)	TRUE	a
2013	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2013	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	TRUE	a
2013	sandeel	SAN	Northern and Central North Sea	TRUE	b
2013	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2013	Sardine	PIL	27.8c, 27.9a	TRUE	b
2013	Sardine	PIL	GSA 6	TRUE	b
2013	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2013	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2013	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2013	Scalloped Hammerhead	SPL	Scalloped Hammerhead Shark	FALSE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	Shark		(Sphyrna lewini) all out of Mediteranea		
2013	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2013	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2013	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2013	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	TRUE	c
2013	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	FALSE	d
2013	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2013	Smoothback angelshark	SUT	27.9, 34, 37, 47	FALSE	cd
2013	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2013	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	FALSE	a
2013	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	TRUE	a
2013	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2013	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2013	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	FALSE	d
2013	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2013	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2013	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2013	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2013	Starry Ray	RJR	IIa, IIIa, IV, VIId	FALSE	c
2013	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	TRUE	b
2013	Swordfish	SWO	all 37	FALSE	a
2013	Thornback Ray	RJC	27.3a	FALSE	c
2013	tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	FALSE	c
2013	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2013	Turbot	TUR	Black Sea	TRUE	bc
2013	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	TRUE	b
2013	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	c
2013	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2013	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2013	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2013	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b
2013	Velvet belly	ETX		FALSE	c
2013	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2013	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2013	White Skate	RJA	White skate (Rostroraja	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			alba) in the Northeast Atlantic		
2013	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2013	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2013	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	a
2013	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	a
2014	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2014	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2014	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2014	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2014	Anchovy	ANE	Anchovy in GSA 7	TRUE	b
2014	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2014	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2014	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2014	atlantic salmon	SAL	Subdivision 32	TRUE	b
2014	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2014	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2014	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2014	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2014	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(Southeast Greenland)		
2014	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	b
2014	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2014	Black dogfish	CFB		FALSE	c
2014	Blackchin guitarfish	RBC	37	TRUE	c
2014	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2014	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	FALSE	b
2014	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	FALSE	b
2014	bluefin tuna	BFT	Mediterranean	FALSE	b
2014	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2014	Bluntnose sixgill shark	SBL		FALSE	c
2014	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	TRUE	d
2014	Capelin	CAP	in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	TRUE	b
2014	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	FALSE	b
2014	Cod	COD	ICES Subarea 14 and	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			NAFO Division 1.F (East Greenland, South Greenland)		
2014	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	TRUE	a
2014	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	TRUE	a
2014	cod	COD	Cod (Gadus morhua) in Subdivisions 22â€“24 (Western Baltic Sea)	TRUE	a
2014	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2014	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2014	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2014	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2014	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2014	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2014	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2014	Common guitarfish	RBX	37	TRUE	c
2014	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(excluding Division 7.d) (Celtic Seas and western English Channel)		
2014	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	FALSE	b
2014	Cunene horse mackerel	HMZ	all 34	TRUE	b
2014	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2014	Deep-water catsharks	API	Velvet belly	FALSE	
2014	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2014	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2014	Giant Manta	RMB	all waters	TRUE	cd
2014	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2014	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	TRUE	c
2014	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	TRUE	d
2014	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2014	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2014	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			grounds, West of Scotland, North of Azores, East of Greenland)		
2014	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2014	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2014	Gulper Shark	CWO		TRUE	c
2014	haddock	HAD	III, IV, VIa	FALSE	a
2014	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2014	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	TRUE	a
2014	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	d
2014	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	c
2014	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2014	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	TRUE	a
2014	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2014	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2014	Leaf-scale gluper shark	GUC	North Eat Atlantic 27	TRUE	c
2014	Longnose velvet dogfish	CYP		TRUE	c
2014	Maltese Ray	JAM	37	TRUE	cd
2014	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	FALSE	a
2014	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	cd
2014	Mousse catshark	GAM		FALSE	c
2014	Nephrops	NEP	VIIIde	FALSE	b
2014	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2014	Nephrops	NEP	VIIIc (FU 25+ 31)	TRUE	b
2014	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	ab
2014	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	TRUE	ab
2014	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2014	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	c
2014	Oceanic White Tip	OSC	all waters	TRUE	cd
2014	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Northeast Atlantic		
2014	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2014	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2014	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2014	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2014	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	TRUE	b
2014	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	cd
2014	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2014	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2014	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2014	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2014	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	FALSE	b
2014	Sailfin roughshark	OXN		FALSE	c
2014	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2014	saithe	POK	I, II	FALSE	a
2014	saithe	POK	IIIa, IV, VI	FALSE	a
2014	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2014	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	b
2014	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2014	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2014	sandeel	SAN	Central Eastern North Sea (SA 3)	FALSE	a
2014	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2014	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	TRUE	a
2014	sandeel	SAN	Northern and Central North Sea	TRUE	b
2014	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2014	Sardine	PIL	27.8c, 27.9a	TRUE	b
2014	Sardine	PIL	GSA 6	TRUE	b
2014	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2014	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2014	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2014	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	TRUE	d
2014	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2014	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2014	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	FALSE	d
2014	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	TRUE	c
2014	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	TRUE	d
2014	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2014	Smoothback angelshark	SUT	27.9, 34, 37, 47	TRUE	d
2014	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2014	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	TRUE	a
2014	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2014	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2014	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2014	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	TRUE	d
2014	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2014	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2014	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2014	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2014	Starry Ray	RJR	IIa, IIIa, IV, VIId	TRUE	c
2014	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			the Indian Ocean		
2014	Swordfish	SWO	all 37	TRUE	a
2014	Thornback Ray	RJC	27.3a	TRUE	c
2014	tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2014	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2014	Turbot	TUR	Black Sea	TRUE	bc
2014	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	TRUE	b
2014	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	c
2014	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2014	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2014	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	FALSE	b
2014	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	FALSE	b
2014	Velvet belly	ETX		FALSE	c
2014	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2014	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2014	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	c
2014	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2014	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2014	Whiting	WHG	Whiting in Division VIIa	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(Irish Sea)		
2014	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	ab
2015	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2015	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2015	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2015	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2015	Anchovy	ANE	Anchovy in GSA 7	TRUE	b
2015	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2015	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2015	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2015	atlantic salmon	SAL	Subdivision 32	FALSE	b
2015	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2015	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2015	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2015	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2015	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2015	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2015	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2015	Black dogfish	CFB		TRUE	c
2015	Blackchin guitarfish	RBC	37	TRUE	c
2015	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2015	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	FALSE	b
2015	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	FALSE	b
2015	bluefin tuna	BFT	Mediterranean	FALSE	b
2015	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2015	Bluntnose sixgill shark	SBL		TRUE	c
2015	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	TRUE	d
2015	Capelin	CAP	Subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	FALSE	b
2015	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	TRUE	a
2015	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	TRUE	b
2015	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	FALSE	a
2015	cod	COD	Cod (Gadus morhua) in	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			divisions 7.e–k (western English Channel and southern Celtic Seas)		
2015	cod	COD	Cod (Gadus morhua) in Subdivisions 22-24 (Western Baltic Sea)	TRUE	a
2015	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2015	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	TRUE	ab
2015	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2015	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2015	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	FALSE	b
2015	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	TRUE	b
2015	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2015	Common guitarfish	RBX	37	TRUE	c
2015	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	TRUE	c
2015	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	FALSE	b
2015	Cunene horse	HMZ	all 34	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	mackerel				
2015	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2015	Deep-water catsharks	API	Mousse catshark	TRUE	c
2015	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2015	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2015	Frilled shark	HXC		FALSE	c
2015	Frilled shark	HXC		TRUE	c
2015	Giant Manta	RMB	all waters	TRUE	c
2015	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2015	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	TRUE	c
2015	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	TRUE	d
2015	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2015	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2015	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2015	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2015	Guitarfishes	GTF, RHH, RBE,	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
		RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE			
2015	Gulper Shark	CWO		TRUE	c
2015	haddock	HAD	III, IV, VIa	FALSE	a
2015	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2015	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	a
2015	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	d
2015	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	c
2015	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2015	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	TRUE	a
2015	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2015	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2015	Knifetooth dogfish	SYR		TRUE	c
2015	Leaf-scale gluper shark	GUC	North Eat Atlantic 27	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2015	Longnose velvet dogfish	CYP		TRUE	c
2015	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	TRUE	cd
2015	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)	FALSE	a
2015	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2015	Mousse catshark	GAM		TRUE	c
2015	Nephrops	NEP	VIIIde	FALSE	b
2015	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2015	Nephrops	NEP	VIIIc (FU 25+ 31)	TRUE	b
2015	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	ab
2015	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	TRUE	ab
2015	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2015	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	b
2015	Oceanic White Tip	OSC	all waters	TRUE	cd
2015	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2015	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2015	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Pacific Ocean		
2015	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2015	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2015	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	TRUE	b
2015	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	cd
2015	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2015	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2015	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2015	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2015	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	TRUE	b
2015	Sailfin roughshark	OXN		TRUE	c
2015	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2015	saithe	POK	I, II	FALSE	a
2015	saithe	POK	IIIa, IV, VI	FALSE	a
2015	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	TRUE	d
2015	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2015	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2015	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2015	sandeel	SAN	Central Eastern North Sea (SA 3)	FALSE	a
2015	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2015	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	TRUE	a
2015	sandeel	SAN	Northern and Central North Sea	TRUE	b
2015	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2015	Sardine	PIL	27.8c, 27.9a	TRUE	b
2015	Sardine	PIL	GSA 6	TRUE	b
2015	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2015	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2015	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2015	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	TRUE	d
2015	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	FALSE	a
2015	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2015	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	TRUE	d
2015	Smooth Hammerhead	SPZ	Smooth Hammerhead (Sphyrna zygaena)	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
	Shark		Shark in Mediterranea		
2015	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	TRUE	d
2015	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2015	Smoothback angelshark	SUT	27.9, 34, 37, 47	TRUE	cd
2015	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2015	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	TRUE	a
2015	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2015	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2015	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2015	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	TRUE	d
2015	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2015	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2015	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2015	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2015	Starry Ray	RJR	IIa, IIIa, IV, VIId	TRUE	bc
2015	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	TRUE	b
2015	Swordfish	SWO	all 37	TRUE	a
2015	Thornback Ray	RJC	27.3a	TRUE	c
2015	Tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2015	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2015	Turbot	TUR	Black Sea	TRUE	bc
2015	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	TRUE	b
2015	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	bc
2015	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2015	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	bc
2015	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	TRUE	b
2015	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	TRUE	b
2015	Velvet belly	ETX		TRUE	c
2015	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2015	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2015	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	bc
2015	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2015	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2015	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	ab
2015	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	ab
2016	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2016	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2016	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2016	anchovy	ANE	Anchovy (Engraulis encrasicolus) in Subarea 8 (Bay of Biscay)	FALSE	a
2016	Anchovy	ANE	Anchovy in GSA 7	TRUE	b
2016	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2016	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2016	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2016	atlantic salmon	SAL	Subdivision 32	FALSE	b
2016	atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2016	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2016	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2016	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2016	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2016	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	a
2016	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2016	Black dogfish	CFB		TRUE	c
2016	Blackchin guitarfish	RBC	37	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2016	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b
2016	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	FALSE	b
2016	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	FALSE	b
2016	bluefin tuna	BFT	Mediterranean	FALSE	b
2016	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2016	Bluntnose sixgill shark	SBL		TRUE	c
2016	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	TRUE	d
2016	Capelin	CAP	Subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	FALSE	b
2016	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	TRUE	ab
2016	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	FALSE	ab
2016	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	FALSE	a
2016	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	TRUE	a
2016	cod	COD	Cod (Gadus morhua) in	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Subdivisions 22-24 (Western Baltic Sea)		
2016	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a
2016	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	FALSE	ab
2016	cod	COD	Cod (Gadus morhua) in Subdivision 7a	TRUE	a
2016	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2016	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	TRUE	b
2016	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	FALSE	b
2016	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2016	Common guitarfish	RBX	37	TRUE	c
2016	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	TRUE	c
2016	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	FALSE	b
2016	Cunene horse mackerel	HMZ	all 34	TRUE	b
2016	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian	TRUE	cd

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Sea		
2016	Deep-water catsharks	API	Bluntnose sixgill shark	TRUE	c
2016	European eel	ELE	European eel (Anguilla anguilla) in North East Atlantic 27	TRUE	cd
2016	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2016	Frilled shark	HXC		TRUE	c
2016	Giant Manta	RMB	all waters	TRUE	c
2016	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2016	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	TRUE	c
2016	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	TRUE	d
2016	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2016	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2016	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2016	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2016	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT,	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
		GUZ, RZE			
2016	Gulper Shark	CWO		TRUE	c
2016	haddock	HAD	III, IV, VIa	FALSE	a
2016	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 5.b (Faroes grounds)	TRUE	a
2016	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	a
2016	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	d
2016	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	c
2016	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2016	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	TRUE	a
2016	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Divisions IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII (Western stock)	FALSE	a
2016	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2016	Knifetooth dogfish	SYR		TRUE	c
2016	Leaf-scale gluper shark	GUC	North Eat Atlantic 27	TRUE	c
2016	Longnose velvet dogfish	CYP		TRUE	c
2016	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	TRUE	cd
2016	Megrim	MEG	Megrim	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			(Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)		
2016	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2016	Mousse catshark	GAM		TRUE	c
2016	Nephrops	NEP	VIIIde	FALSE	b
2016	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2016	Nephrops	NEP	VIIIc (FU 25+ 31)	TRUE	b
2016	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	ab
2016	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	TRUE	ab
2016	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2016	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	b
2016	Oceanic White Tip	OSC	all waters	TRUE	cd
2016	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2016	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2016	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2016	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2016	Plaice	PLE	Plaice (Pleuronectes	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)		
2016	Pollack	POL	IV (North Sea) and Division IIIa (Skagerrak–Kattegat)	TRUE	b
2016	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	cd
2016	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2016	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2016	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2016	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2016	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	TRUE	b
2016	Sailfin roughshark	OXN		TRUE	c
2016	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2016	saithe	POK	I, II	FALSE	a
2016	saithe	POK	IIIa, IV, VI	FALSE	a
2016	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	TRUE	d
2016	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	ab
2016	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2016	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2016	sandeel	SAN	Central Eastern North Sea (SA 3)	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2016	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2016	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)	TRUE	b
2016	sandeel	SAN	Northern and Central North Sea	FALSE	a
2016	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2016	Sardine	PIL	27.8c, 27.9a	TRUE	b
2016	Sardine	PIL	GSA 6	FALSE	b
2016	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2016	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2016	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2016	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	TRUE	d
2016	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	TRUE	a
2016	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2016	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	TRUE	d
2016	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	TRUE	c
2016	Smooth Hammerhead Shark	SPZ	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	TRUE	d

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2016	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2016	Smoothback angelshark	SUT	27.9, 34, 37, 47	TRUE	cd
2016	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2016	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	TRUE	a
2016	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2016	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	FALSE	a
2016	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2016	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	TRUE	d
2016	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2016	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2016	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2016	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2016	Starry Ray	RJR	IIa, IIIa, IV, VIId	TRUE	bc
2016	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	TRUE	b
2016	Swordfish	SWO	all 37	TRUE	a
2016	Thornback Ray	RJC	27.3a	TRUE	c
2016	Tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2016	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2016	Turbot	TUR	Black Sea	TRUE	bc
2016	Tusk	USK	Tusk (Brosme brosme) in Subarea 12,	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			excluding Division 12.b (Southern Mid-Atlantic Ridge)		
2016	Undulate ray	RJU	Undulate Ray inVIId-e, English Channel	TRUE	bc
2016	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	TRUE	bc
2016	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	b
2016	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	TRUE	b
2016	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	TRUE	b
2016	Velvet belly	ETX		TRUE	c
2016	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2016	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2016	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	bc
2016	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2016	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2016	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	ab
2016	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	ab
2017	Adriatic Sturgeon	AAA	Adriatic sturgeon (Acipenser nudiventris) in Adriatic Sea 37	TRUE	d
2017	Alopidae	BTH, ALV, PTH, THR	51, 57	TRUE	c
2017	American Plaice	PLA	American plaice in Division 3M	TRUE	ab
2017	anchovy	ANE	Anchovy (Engraulis	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			encrasicolus) in Subarea 8 (Bay of Biscay)		
2017	Anchovy	ANE	Anchovy in GSA 7	FALSE	b
2017	Angel shark	AGN	Angel Shark in North East Atlantic 27	TRUE	cd
2017	Angel shark	AGN	Angel Shark in Mediteranea	TRUE	cd
2017	atlantic salmon	SAL	Subdivisions 22-31	FALSE	b
2017	atlantic salmon	SAL	Subdivision 32	FALSE	b
2017	Atlantic salmon	SAL	Atlantic Salmon in Atlantic ocean, southern complex	TRUE	b
2017	Atlantic Sturgeon	AAO	Atlantic Sturgeon (Acipenser oxyrhynchus) in Northest Pacific 67, 77	TRUE	d
2017	Barbel Sturgeon	AAN	Barbel sturgeon (Acipenser nudiventris) in Mediterranea and Black Sea 37	TRUE	d
2017	Basking shark	BSK	North East Atlantic 27 + Med 37	TRUE	d
2017	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in Division 14.b, demersal (Southeast Greenland)	FALSE	b
2017	Beaked redfish	REB, RED	Beaked redfish (Sebastes mentella) in ICES subareas 5, 12, and 14 (Iceland and Faroes grounds, north of Azores, east of Greenland) and NAFO subareas 1+2 (deep pelagic stock > 500 m)	TRUE	ab
2017	Bigeye Thresher Shark	BTH	all waters	TRUE	c
2017	Black dogfish	CFB	Black dogfish	TRUE	c
2017	Blackchin guitarfish	RBC	37	TRUE	c
2017	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 1, 2, 8, 9, and 12, and in divisions 3.a and 4.a (other areas)	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2017	Blue Ling	BLI	Blue ling (Molva dypterygia) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)	FALSE	b
2017	Blue Ling	BLI	Blue ling (Molva dypterygia) in subareas 6–7 and Division 5.b (Celtic Seas, English Channel, and Faroes grounds)	FALSE	b
2017	bluefin tuna	BFT	Mediterranean	FALSE	b
2017	bluefin tuna	BFT	Atlantic Ocean east of longitude 45° W	FALSE	b
2017	Bluntnose sixgill shark	SBL	Bluntnose sixgill shark	TRUE	c
2017	Bull Ray	MPO	27.9, 34.1.1, 34.1.2, 37	TRUE	d
2017	Capelin	CAP	Subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	FALSE	b
2017	Capelin	CAP	Northeast Arctic excluding Division 2.a west of 5°W	TRUE	ab
2017	Cod	COD	ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)	FALSE	ab
2017	cod	COD	Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	FALSE	a
2017	cod	COD	Cod (Gadus morhua) in divisions 7.e–k (western English Channel and southern Celtic Seas)	TRUE	a
2017	cod	COD	Cod (Gadus morhua) in Subdivisions 22-24 (Western Baltic Sea)	TRUE	a
2017	cod	COD	Cod (Gadus morhua) in Division 6.a (West of Scotland)	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2017	cod	COD	Cod (Gadus morhua) in Subdivision 5.b.1 (Faroe Plateau)	FALSE	ab
2017	cod	COD	Cod (Gadus morhua) in Subdivision 7a	FALSE	b
2017	cod	COD	Cod (Gadus morhua) in NAFO divisions 1.A–E, offshore (West Greenland)	TRUE	b
2017	cod	COD	Cod (Gadus morhua) in Division 6.b (Rockall)	TRUE	b
2017	cod	COD	Cod (Gadus morhua) in Subdivision 21 (Kattegat)	FALSE	b
2017	cod	COD	Cod (Gadus morhua) in subareas 1 and 2 (Norwegian coastal waters cod)	TRUE	b
2017	Common guitarfish	RBX	37	TRUE	c
2017	Comon skate Complex	RJB	Common skate (Dipturus batis-complex (blue skate (Dipturus batis) and flapper skate (Dipturus cf. intermedia)) in subareas 6–7 (excluding Division 7.d) (Celtic Seas and western English Channel)	TRUE	c
2017	Cuckoo ray	RJB	Cuckoo ray (Leucoraja naevus) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat)	FALSE	b
2017	Cunene horse mackerel	HMZ	all 34	TRUE	b
2017	Danube Sturgeon	APG	Danube Sturgeon (Acipenser gueldenstaedtii) in Black Sea and Caspian Sea	TRUE	cd
2017	Deep-water catsharks	API	Deep-water catsharks	TRUE	c
2017	European eel	ELE	European eel (Anguilla anguilla) in North East	TRUE	cd

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Atlantic 27		
2017	European eel	ELE	European eel (Anguilla anguilla) in Mediterranea 37	TRUE	cd
2017	Frilled shark	HXC	Frilled shark	TRUE	c
2017	Giant Manta	RMB	all waters	TRUE	c
2017	Golden redfish	REG, RED	Golden redfish (Sebastes norvegicus) in subareas 1 and 2 (Northeast Arctic)	TRUE	b
2017	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokarran) Shark in Mediterranea	TRUE	c
2017	Great Hammerhead Shark	SPK	Great Hammerhead (Sphyrna mokaran) Shark all out of Mediterranea	TRUE	d
2017	Great White shark	WSH	27.7-9, 31, 34, 37, 41, 51, 56	TRUE	d
2017	Green Strugeon	AAM	Green Sturgeon (Acipenser medirostris) in Northwest Pacific 67, 77	TRUE	d
2017	Greenland Halibut	GHL	Greenland halibut (Reinhardtius hippoglossoides) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)	FALSE	b
2017	Greenland Shark	GSK	27.5, 27.6, 27.7, 27.9, 27.10	TRUE	c
2017	Guitarfishes	GTF, RHH, RBE, RBC,GUD, GUF, RBO, RBU, RBS, RBL, RBP, RBX, RBZ, RBR, RBT, GUZ, RZE	I, II, III, IV, V, VI, VII, VIII, IX, X and XII	TRUE	c
2017	Gulper Shark	CWO		TRUE	c
2017	haddock	HAD	III, IV, VIa	FALSE	a
2017	Haddock	HAD	Haddock (Melanogrammus	TRUE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			aeglefinus) in Division 5.b (Faroes grounds)		
2017	Haddock	HAD	Haddock (Melanogrammus aeglefinus) in Division 6.b (Rockall)	FALSE	a
2017	Hamerheads Sharks nei	SPN	Hamerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	d
2017	Hammerheads Sharks nei	SPN	Hammerhead Shark (Sphyrna lewini) all out of Mediterranea	TRUE	c
2017	Herring	HER	Herring (Clupea harengus) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and wester	TRUE	a
2017	Herring	HER	Herring (Clupea harengus) in divisions 6.a and 7.b–c (West of Scotland, West of Ireland)	TRUE	a
2017	horse makerel	HOM, JAX	Horse mackerel (Trachurus trachurus) in Subarea 8 and divisions 2.a, 4.a, 5.b, 6.a, 7.a–c, and 7.e–k (the Northeast Atlantic)	FALSE	a
2017	Kitefin Shark, birdbeak dogfish leafscale gulper shark great lanternshark	SCK, ETR, GUQ, DCA	I,IIa, IV, XIV	TRUE	c
2017	Knifetooth dogfish	SYR		TRUE	c
2017	Leaf-scale gluper shark	GUC	North Eat Atlantic 27	TRUE	c
2017	Longnose velvet dogfish	CYP		TRUE	c
2017	Maltese Ray	JAM	Maltese ray (Leucoraja melitensis) in Mediteranea 37	TRUE	cd
2017	Megrim	MEG	Megrim (Lepidorhombus whiffiagonis) in divisions 8.c and 9.a (Cantabrian Sea and	FALSE	a

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Atlantic Iberian waters)		
2017	Mobulas	MAN, RME, RMH, RMJ, RMK, RMM, RMU, RMR,RMT, RMO, RMV	all waters	TRUE	c
2017	Mousse catshark	GAM	Mousse catshark	TRUE	c
2017	Nephrops	NEP	VIIIde	FALSE	b
2017	Nephrops	NEP	IXa (FU 26 27)	TRUE	b
2017	Nephrops	NEP	VIIIc (FU 25+ 31)	TRUE	b
2017	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Flemish Cap (NAFO 3M)	TRUE	ab
2017	Northern Shrimp	PRA	Northen shrimp (Pandalus borealis) on the Grand Bank (NAFO 3LNO)	TRUE	ab
2017	Northern Shrimp	PRA	Northern shrimp (Pandalus borealis) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)	FALSE	a
2017	Norvegian Skate	JAD	VIa, VIb, VIIa-c, VIIefghk	TRUE	b
2017	Oceanic White Tip	OSC	all waters	TRUE	cd
2017	Orange rougthy	ORY	Orange roughy (Hoplostethus atlanticus) in the Northeast Atlantic	TRUE	b
2017	Orange rougthy	ORY	South Est Atlantic 47	TRUE	b
2017	Orange rougthy	ORY	Orange Rougthy (Hoplostethus atlanticus) in South Est Pacific Ocean	TRUE	b
2017	plaice	PLE	Plaice (Pleuronectes platessa) in Division 7.d (eastern English Channel)	FALSE	a
2017	Plaice	PLE	Plaice (Pleuronectes platessa) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)	TRUE	a
2017	Pollack	POL	IV (North Sea) and	FALSE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Division IIIa (Skagerrak–Kattegat)		
2017	porbeagle	POR	nea, nwa, sea, swa, med	TRUE	cd
2017	Portuguese dogfish	CYO	North Eat Atlantic 27	TRUE	c
2017	Red seabream	SBR	Blackspot seabream (Pagellus bogaraveo) in subareas 6, 7, and 8 (Celtic Seas and the English Channel, Bay of Biscay)	TRUE	b
2017	Roughhead Grenadier	RHG	Roughhead grenadier (Macrourus berglax) in the Northeast Atlantic	TRUE	b
2017	Roughsnout grenadier	TSU	Roughsnout grenadier (Trachyrincus scabrus) in the northeast Atlantic	TRUE	b
2017	Roundnose grenadier	RNG	Roundnose grenadier (Coryphaenoides rupestris) in Division 3.a (Skagerrak and Kattegat)	TRUE	b
2017	Sailfin roughshark	OXN	Sailfin roughshark	TRUE	c
2017	saithe	POK	Saithe (Pollachius virens) in Division 5.b (Faroes grounds)	FALSE	a
2017	saithe	POK	I, II	FALSE	a
2017	saithe	POK	IIIa, IV, VI	FALSE	a
2017	Sand Tiger Shark	CCT	34.1.1, 34.1.2, 37	TRUE	d
2017	Sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c and Subdivision 20, Sandeel Area 2r (central and southern North Sea)	TRUE	ab
2017	Sandeel	SAN	Division IIIa East (Kattegat) (SA 6)	FALSE	b
2017	sandeel	SAN	Shetland Area (SA 7)	TRUE	b
2017	sandeel	SAN	Central Eastern North Sea (SA 3)	FALSE	a
2017	sandeel	SAN	Bergen Bank Area (SA 5)	TRUE	b
2017	sandeel	SAN	Sandeel (Ammodytes spp.) in divisions 4.b–c,	TRUE	b

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			Sandeel Area 1r (central and southern North Sea, Dogger Bank)		
2017	sandeel	SAN	Northern and Central North Sea	FALSE	a
2017	Sandy ray	RJI	Sandy ray (Leucoraja circularis) in Mediteranea 37	TRUE	c
2017	Sardine	PIL	27.8c, 27.9a	TRUE	b
2017	Sardine	PIL	GSA 6	FALSE	b
2017	Sawback angelshark	SUA	27.9, 34.1.1, 34.1.2, 37	TRUE	cd
2017	Sawfishes	RPA, RPC, RPM, RPP, RPZ, SAW	27.9, 31, 34, 37, 41, 51, 57	TRUE	d
2017	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) in Mediterranea	TRUE	c
2017	Scalloped Hammerhead Shark	SPL	Scalloped Hammerhead Shark (Sphyrna lewini) all out of Mediteranea	TRUE	d
2017	Sea bass	BSS	Sea bass (Dicentrarchus labrax) in divisions 4.b–c, 7.a, and 7.d–h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)	TRUE	ab
2017	Silky Shark	FAL	21, 27, 31, 34, 37, 41, 47, 48	TRUE	c
2017	Smalltooth sand tiger	LOO	21.1, 27.8, 27.9, 27.10, 34.1.1, 34.1.2, 37	TRUE	d
2017	Smooth Hammerhead Shark	SPK	Smooth Hammerhead (Sphyrna zygaena) Shark in Mediterranea	TRUE	c
2017	Smooth Hammerhead Shark	SPK	Smooth Hammerhead (Sphyrna zygaena) Shark world out of Mediterranea	TRUE	d
2017	Smooth Lantern Shark	ETP	IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2017	Smoothback angelshark	SUT	27.9, 34, 37, 47	TRUE	cd

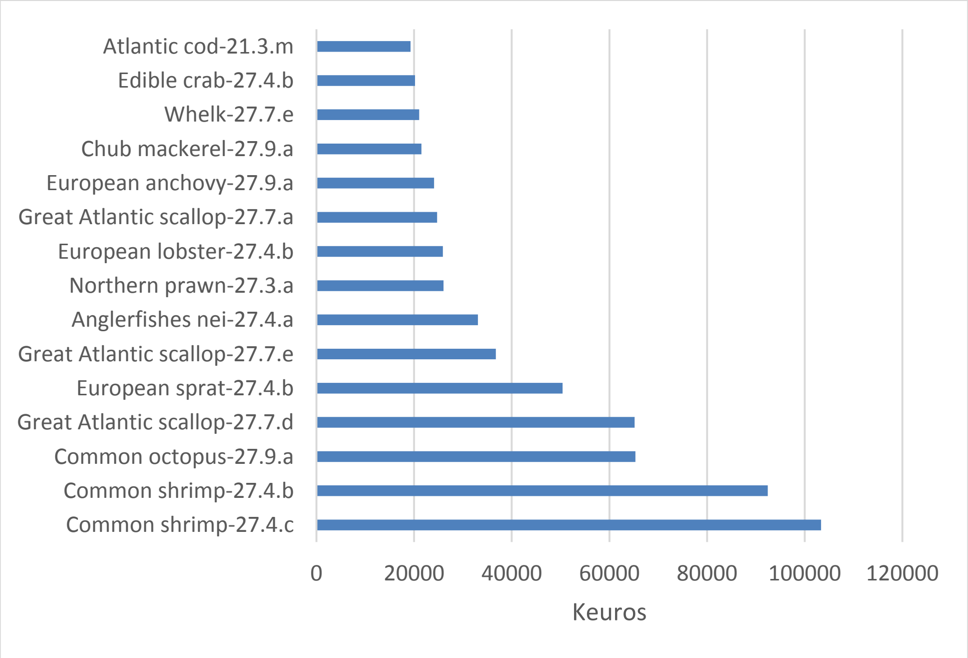
Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
2017	Sole	SOL	Sole (Solea solea) in Division 7.a (Irish Sea)	TRUE	a
2017	Sole	SOL	Sole (Solea solea) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters	TRUE	a
2017	Sole	SOL	Sole (Solea solea) in subdivisions 20–24	FALSE	a
2017	Sole	SOL	Sole (Solea solea) in Division 7.d (eastern English Channel)	TRUE	a
2017	Southern Blufin Tuna	SBF	47.C.,47.D, 51.6, 51.7, 51.8, 58, 57.2, 57.3, 57.4, 57.5, 57.6, 81	TRUE	d
2017	Spiny butterfly ray	RGL	27.8c, 27.9, 34.1.1, 34.1.2, 37	TRUE	d
2017	spiny dogfish	DGS	Spurdog (Squalus acanthias) in the Northeast Atlantic	TRUE	b
2017	Spiny Dogfish	DGS	Spurdog (Squalus acanthias) in Black Sea GSA 29	TRUE	b
2017	Sprat	SPR	Sprat (Sprattus sprattus) in Subarea 4 (North Sea)	FALSE	a
2017	Star Sturgeon	ACE	Star sturgeon (Acipenser stellatus) in Mediterranea and Black Sea 37	TRUE	d
2017	Starry Ray	RJR	IIa, IIIa, IV, VIId	TRUE	bc
2017	Stripped marlin	MLS	Striped marlin (Tetrapturus audax) in the Indian Ocean	TRUE	b
2017	Swordfish	SWO	all 37	TRUE	a
2017	Thornback Ray	RJC	27.3a	TRUE	c
2017	Tope Shark	GAG	with LL, IIa, III, IV, VI, VII, VIII,IX, X	TRUE	c
2017	Tope Shark	GAG	all 37 with LL, bottom set net and tuna trap	TRUE	c
2017	Turbot	TUR	Black Sea	TRUE	bc
2017	Tusk	USK	Tusk (Brosme brosme) in Subarea 12, excluding Division 12.b (Southern Mid-Atlantic Ridge)	TRUE	b
2017	Undulate ray	RJU	Undulate Ray inVIId-e,	FALSE	bc

Year	Specie	FAO_Code	Stock_Description	SAR	Criteria
			English Channel		
2017	Undulate ray	RJU	Undulate Ray in VIII a-b Nothern & Central Bay of Biscay	FALSE	bc
2017	Undulate ray	RJU	Undulate ray (Raja undulata) in divisions 7.b and 7.j (west and southwest of Ireland)	TRUE	b
2017	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 9.a (Atlantic Iberian waters)	TRUE	b
2017	Undulate ray	RJU	Undulate ray (Raja undulata) in Division 8.c (Cantabrian Sea)	TRUE	b
2017	Velvet belly	ETX	Velvet belly (Etmopterus spinax)	TRUE	c
2017	Whale shark	RHN	31, 34, 41, 51, 58	TRUE	d
2017	White Grouper	GPW	White grouper (Epinephelus aeneus) in Mauritania, Senegal and Gambia	TRUE	b
2017	White Skate	RJA	White skate (Rostroraja alba) in the Northeast Atlantic	TRUE	bc
2017	White Sturgeon	APN	White Sturgeon (Acipenser transmontanus) in Nortwest Atlantic 27	TRUE	d
2017	Whiting	WHG	Whiting (Merlangius merlangus) in Division 6.a (West of Scotland)	TRUE	ab
2017	Whiting	WHG	Whiting in Division VIIa (Irish Sea)	TRUE	ab
2017	Witch Flounder	WIT	Witch flounder in Divisions 2J + 3KL	TRUE	ab

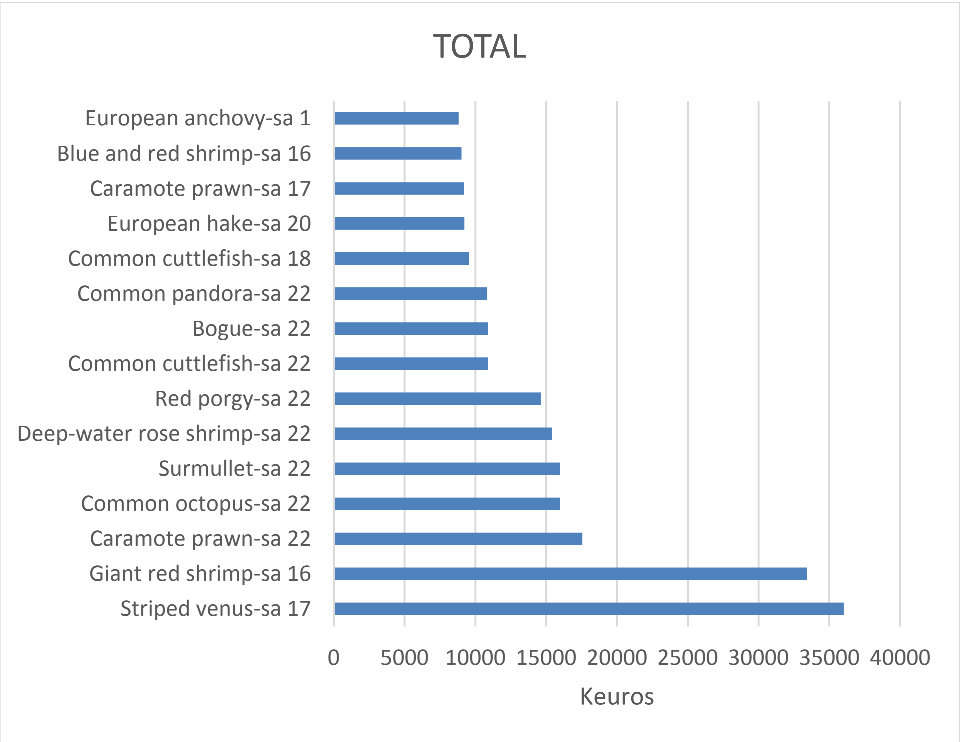
18 Annex VI – Priority list of required stock assessments

A list of 15 most important stocks in FAO major fishing Area 27 (Northeast Atlantic), Area 37 (Mediterranean and Black Sea), and OFR, based on catch values, which are targeted by fleet segments of the European fishing fleet for which no stock assessment data is available. Carrying out assessments for these stocks should be a priority in order to improve the coverage of biological indicators.

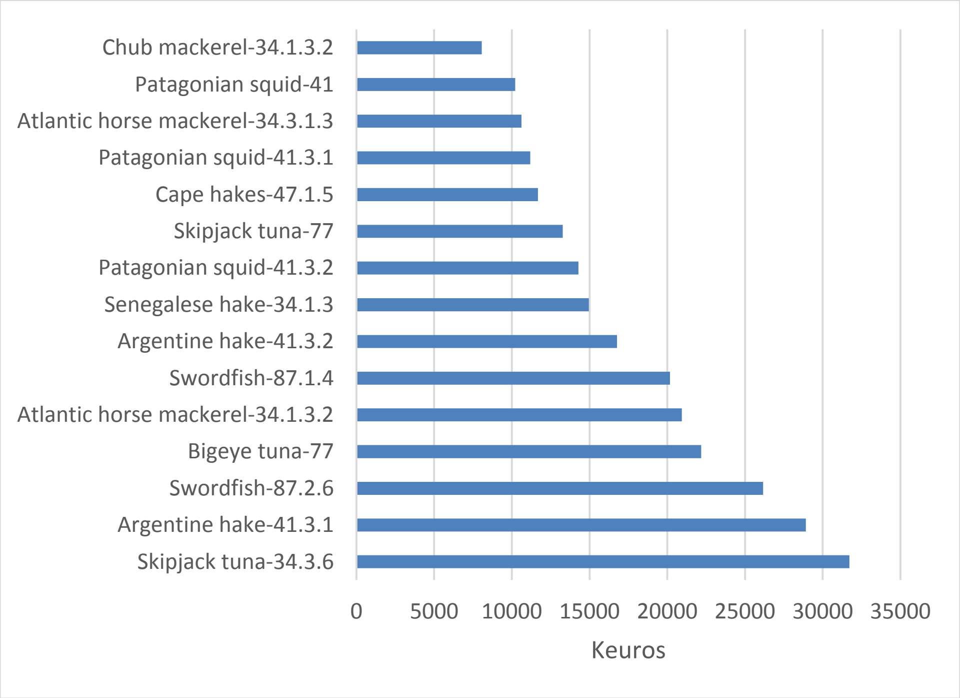
Area 27



Area 37



OFR



Chub mackerel-34.1.3.2
Patagonian squid-41
Atlantic horse mackerel-34.3.1.3
Patagonian squid-41.3.1
Cape hakes-47.1.5
Skipjack tuna-77
Patagonian squid-41.3.2
Senegalese hake-34.1.3
Argentine hake-41.3.2
Swordfish-87.1.4
Atlantic horse mackerel-34.1.3.2
Bigeye tuna-77
Swordfish-87.2.6
Argentine hake-41.3.1
Skipjack tuna-34.3.6
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