

Comparing TAC and ICES advice areas

1 Overview of the issue

The reformed Common Fisheries Policy (CFP) includes the fundamental objective to progressively restore and maintain fish stocks above biomass levels capable of producing the maximum sustainable yield (MSY) (Article 2(2) of the CFP Basic Regulation, Regulation (EU) No 1380/2013). For the purpose of achieving this 'MSY objective', the MSY exploitation rate shall be achieved on a progressive, incremental basis by 2020 at the latest. Moreover, the CFP must apply the precautionary approach to fisheries management, and measures should be taken in accordance with the best available scientific advice (Article 3(c) of the CFP Basic Regulation).

The main instrument regulating fishing mortality in European fisheries management are the Total Allowable Catches (TACs) set by the Council, following the publication of the Commission's TAC proposals. In order for the TACs to be in line with the CFP's policy objectives outlined above, they need to be proposed and set at levels which are 1) at least moving towards achieving MSY-based exploitation rates which must be achieved by 2020 the latest, and 2) in line with the precautionary approach where data are more limited and no MSY-based stock assessment is available. In order to determine whether this is actually the case, it is essential to compare both the Commission's TAC proposals and the final TACs set by the Council with the scientific catch (or landings) advice provided by the International Council for the Exploration of the Sea (ICES).

Every year NGOs comment on the extent to which the TAC proposals and final TACs are in line with the scientific advice, based on such comparisons. ClientEarth's analysis for the North Western Waters and North Sea has raised several issues in terms of comparability between TAC proposals (and TACs) and scientific catch (and/or landings) advice: while the comparison of the final TAC adopted with the TAC proposed by the Commission is simple, as they refer to the same management units, comparing either of them to the scientific advice is much less straightforward in the majority of cases.

The main reason for this is that while ICES advice is usually given for individual stocks, the management areas referred to in the Commission's proposals and resulting TACs do not always correspond to exactly the same area which the advice is provided for. Some of these mismatch issues can be resolved by adding up different advice-units and/or TAC proposals (or TACs) in order to make the resulting numbers comparable. However, there are several different cases of area mismatch which cannot be resolved without additional information on the proportion of catches taken within the area not covered by either the advice or the TAC (proposal).

This is problematic because it hampers the comparability of TAC proposals and TACs with scientific advice and thus makes it difficult to establish whether fisheries management is in fact moving towards MSY (in cases where an MSY-based stock assessment is available) or even applying the precautionary approach (in cases where data are more limited and ICES advises based on the precautionary approach).

This memo presents an overview and examples of the different issues of area mismatch we have encountered throughout our attempt to compare TAC proposals and TACs to advice given for stocks in the North Western Waters and the North Sea. We have produced it both to help shed light on these issues, and in the hopes of finding some answers to the questions we have about how the Commission applies ICES' advice to the TAC management areas (essentially, how the Commission deals with the different types of area mismatch). Section 5 of this memo contains a number of additional questions about the preparation of the Commission's TAC proposals and relevant information it may be able to provide in this context. Such information would enable us, other NGOs and the public to better understand a) how the Commission addresses these issues throughout the preparation of their TAC proposals, and b) why some TAC proposals still do not appear to be in line with the advice.

2 Overview of the different scenarios

A schematic representation of the different scenarios in terms of area match or mismatch between the area covered by the TAC (proposal) and the advice is given in Fig. 1.

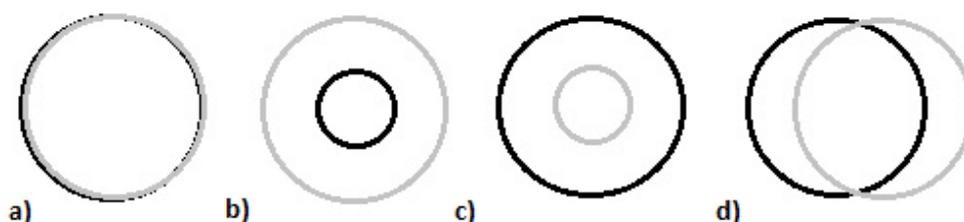


Fig. 1: Schematic representations of the different area match and mismatch scenarios. The black circles represent the advice area and the grey circles represent the TAC (proposal) area. a) match: advice and TAC (proposal) area are the same, which is the preferred scenario. b) mismatch: TAC (proposal) area > advice area. c) TAC (proposal) area < advice area. d) TAC (proposal) and advice area overlap partially.

The different scenarios are discussed and explained in more detail using examples in the following two sections. One example per scenario is illustrated with a map (Fig. 2, 3, 4, 5).

3 Ideal scenario (a): TAC (proposal) area = advice area

The ideal scenario is that the area covered by the TAC proposals and TACs is exactly the same as the area which the advice is given for (Example 1). We have identified 21 stocks (out of 64 comparisons so far included in our analysis) for this scenario. In another 5 cases (Example 2) the numbers could be made comparable by adding up either different advice-units or different TAC proposals (and TACs). These two scenarios are what we would like to see for purposes of direct comparability.

Example 1: *common sole in the Irish Sea, sol-iris (advice) vs. SOL/07A (TAC)*. Both the advice and the TAC (proposal) refer to sole in VIIa. The numbers are thus directly comparable.

Example 2 (Fig. 2): *plaice in the English Channel, ple-eche + ple-echw (advice) vs. PLE/7DE (TAC)*. Advice was given for the Eastern and Western Channel individually, but after adding up the advice for both stocks the numbers are comparable to the TAC (proposal).



Fig. 2: Map for Example 2. The codes correspond to the respective ICES statistical areas and the green shading highlights the waters of the European Union. The black outline refers to the advice areas for the two plaice stocks (VIIe and VIId) and the red shaded area refers to the TAC (proposal). Source: [European Atlas of the Seas 2015](#), modified using GIMP.

4 Different scenarios of area mismatch

4.1 Scenario (b): TAC (proposal) area > advice area

We identified 25 cases where the TAC area is larger than the advice area (i.e. it includes all of the advice area and more) and there is no additional advice to cover the additional TAC area. In 11 out of these cases, there is just one TAC (proposal) per stock (Examples 3 and 4), and in the remaining 14 the values for several advice-units and/or TAC proposals (or TACs) have to be added up for the TAC (proposal) area to cover all of the advice area (Examples 5 and 6).

If the TAC (proposal) is lower than or equal to the advice, we can be sure that it is in line with the advice; however, if it is larger, we cannot determine whether it is too high or not, unless there is additional information about which proportion of the TAC is to be taken within the advice area. If that part of the TAC caught within the advice area were less than or equal to the advised catch, whereas the rest were taken in the other areas for which no advice is available, this would be in line with the advice; but if the part of the TAC caught within the advice area were higher than the advised catch, it would be too high.

Example 3: *common sole in the North Sea, sol-nsea (advice) vs. SOL/24-C (TAC)*. The advice refers to IV, whereas the TAC additionally includes Union waters of IIa. In 2015 for example the TAC proposal (10973 t) was lower than the advised catch (11400 t) and was therefore definitely in line with the advice.

Example 4: *Nephrops in Kattegat and Skagerrak, nep-3-4 (advice) vs. NEP/3A/BCD (TAC)*. The advice refers only to IIIa, whereas the TAC area includes also Union waters of Subdivisions 22-

32. In 2015 for example, the TAC proposal was the same as the advised landings (5318 t), and was therefore definitely in line with the advice. However, if all of that catch were to be taken within the advice area (IIIa), it would mean no catches would be allowed in the rather large area of Subdivisions 22-32. If there are any catches in that area, the catches within the advice area would have to be decreased by the same amount. The TAC proposal is thus more conservative than the advice.

Example 5 (Fig. 3): *megrims in West and Southwest of Ireland, mgw-78 (advice) vs. LEZ/07 + LEZ/8ABDE (TAC)*. The advice refers to VIIb-k, VIIIa, b and d, whereas the combined TACs refer to VII + VIIIa, b, d and e, i.e. additionally include VIIa and VIIIe, for which no individual advice is available. Even after adding up the individual TAC proposals (or TACs), these are not fully comparable to the advice, because they cover a larger area. In 2015 for example the TAC (19101 t) was higher than the advice and the TAC proposal (15180 t), so if the whole TAC were to be caught within the advice area, this would exceed the advice; but if only 15180 t of it were to be caught in the advice area and the rest were to be caught in the other areas for which no advice is available, then the catches would be in line with the advice. Without information on which proportion of the TAC is to be caught within the advice area, it is thus impossible to tell whether it is in line with the advice or not.

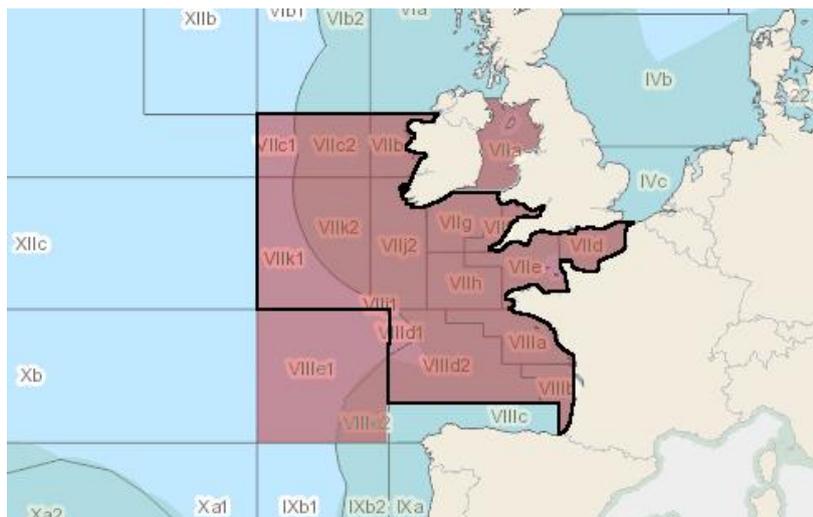


Fig. 3: Map for Example 5. The codes correspond to the respective ICES statistical areas and the green shading highlights the waters of the European Union. The black outline refers to the advice area and the red shaded area refers to the TAC (proposal). Source: [European Atlas of the Seas 2015](#), modified using GIMP.

Example 6: *northern hake, hke-nrth (advice) vs. HKE/8ABDE + HKE/571214 + HKE/3A/BCD + HKE/2AC4-C (TAC)*. The advice refers to just IIIa, IV, VI, VII, VIIIabd, whereas the summed up TAC proposals additionally include Union and international waters of Vb; international waters of XII and XIV, Union waters of Subdivisions 22-32, and Union waters of IIa. Even though the TAC proposal for 2015 was exactly the same as the advice (78457 t), this is not directly comparable: like for example 4, the TAC proposal may be more restrictive than necessary, because ICES advised this catch for just a subset of the area which the TAC applies to.

4.2 Scenario (c): TAC (proposal) area < advice area

We identified 1 case (see Example 7) where the area of the TAC (proposal) is smaller than the advice area, i.e. the advice area includes all of the TAC (proposal) area and more, for which no TAC is proposed/set. This issue also applies to all individual TAC proposals (and TACs) which have to be added up for comparability with the advice (see Example 8).

If the TAC (proposal) is higher than the advised catch, it definitely exceeds the advice; however, if it is lower than or equal to the advised catch, we cannot be sure whether the resulting catches are in line with the advice or not: the catches taken within the TAC area are only in line with the advice, if the catches taken within the TAC area and those taken within the part of the advice area not covered by the (or any other) TAC (proposal) add up to less or equal to the advised catch. Otherwise they exceed the advice. If the TAC (proposal) is equal to the advised catch, then no catches may occur in the part of the advice area not covered by the TAC for them to be in line with the advice.

Example 7 (Fig. 4): horse mackerel in Skagerrak and Kattegat, Southern and Central North Sea and Eastern English Channel, hom-nsea (advice) vs. JAX/4BC7D (TAC). The advice refers to IIIa, IVb, IVc and VIId, whereas the TAC only refers to Union waters of IVb, IVc and VIId (i.e. excluding Norwegian waters of IVb) and does not include IIIa. There does not seem to be an individual TAC for these areas. For example, even though the TAC (proposal) for 2015 was the same as the catch advice (15200 t), we cannot be sure whether this is in line with the advice for the reasons stated above.

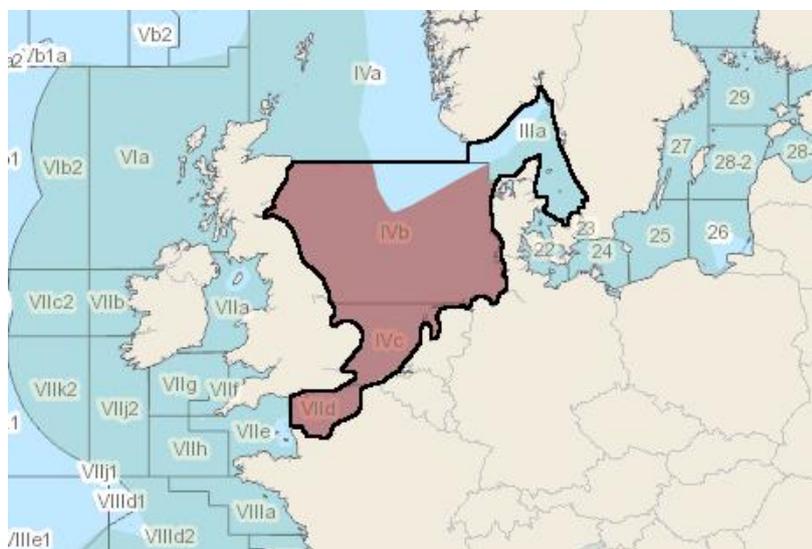


Fig. 4: Map for example 7. The codes correspond to the respective ICES statistical areas and the green shading highlights the waters of the European Union. The black outline refers to the advice area and the red shaded area refers to the TAC (proposal). Source: [European Atlas of the Seas 2015](#), modified using GIMP.

Example 8 (see **Example 5** above): megrims in West and Southwest of Ireland, mgw-78 (advice) vs. LEZ/07 + LEZ/8ABDE (TAC). The TAC proposals (and TACs) for LEZ/07 and LEZ/8ABDE individually cover a smaller area than the corresponding advice, but added up they cover a larger area which includes parts for which there is no advice (VIIa and VIIIe).

4.3 Scenario (d): TAC (proposal) area and ICES area only partially overlap

We identified 12 cases in which the TAC (proposal) area and the advice area overlap only partially, while each of them contain areas not included in the other. In these cases, the TAC proposal (and TAC) and the corresponding advice are not comparable at all, unless there is additional information about which catches are taken and advised in the not-overlapping areas.

Example 9: *common dab and flounder in the North Sea and Skagerrak/Kattegat, dab-nsea + fle-nsea (advice) vs. DAB/2AC4-C and FLE/2AC4-C (TAC).* The advice refers to IV and IIIa, whereas the TAC (proposal) area does not include IIIa, but instead includes the Union waters of IIa which are not part of the advice area. Moreover, in this case the advice is given for dab and flounder individually, whereas the TAC is proposed/set for both of the stocks combined.

Example 10 (Fig. 5): *brill and turbot in the North Sea, Skagerrak/Kattegat and the English Channel, bll-nsea + tur-nsea (advice) vs. BLL/2AC4 and TUR/2AC4 (TAC).* First of all, the advice is given for brill and turbot individually, whereas the TAC is proposed/set for both combined. Moreover, the advice areas for both species are different (IV, IIIa, VIId, e for brill, just IV for turbot). And finally, the TAC (proposal) area includes only IV and the Union waters of IIa, and is thus lacking part of the advice area while including an additional area for which there is no advice for either of the included stocks. This example represents the most problematic mismatch scenario which cannot be resolved without additional information.

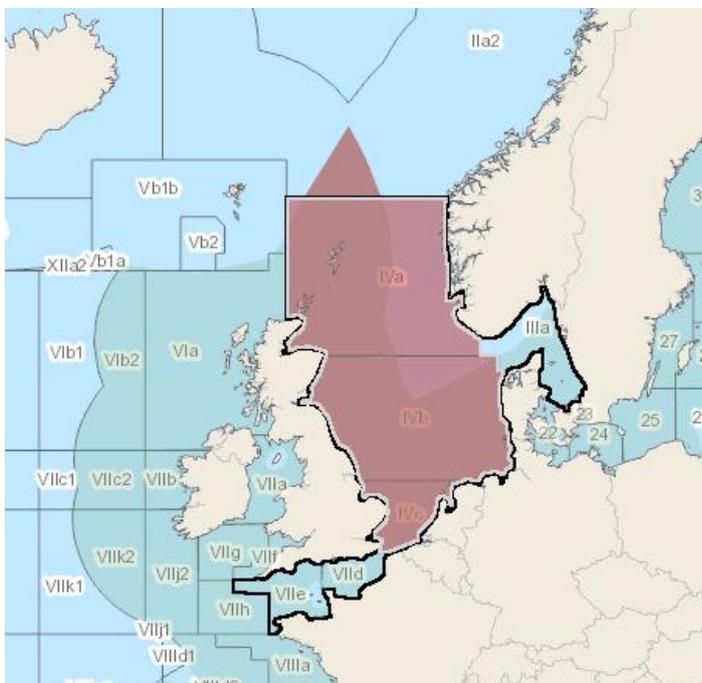


Fig. 5: Map for Example 10. The codes correspond to the respective ICES statistical areas and the green shading highlights the waters of the European Union. The black outline refers to the advice area for brill, the grey outline refers to the advice area for turbot, and the red shaded area refers to the TAC (proposal). Source: [European Atlas of the Seas 2015](#), modified using GIMP.

5 Questions

We have also identified some questions which would help us understand how the Commission translates the scientific advice into a proposal for fishing opportunities. This understanding is crucial to monitor how the CFP is being implemented, specifically regarding progress towards achieving the requirements of Basic Regulation Article 2(2) and the establishment of measures in accordance with the best available scientific advice as per Article 3(c). Questions 1 to 4 are our main questions, whereas questions 5 to 7 refer to particular TAC proposals.

1. Why does the Commission in so many cases propose TACs for areas that are not fully comparable with the stock-units (areas) which ICES provides its advice for, and is there anything that can be done to address this?
2. How does the Commission decide on the values it proposes in cases where the TAC proposal area differs from that of the advice, especially in cases where no advice is provided for part of the TAC proposal area? Do they use additional information on catch distribution to determine whether their proposal is likely to lead to catches that are in line with the advice?
3. Would the Commission be able and willing to provide additional explanations for those cases where their proposed TAC differs from the advised catches/landings?
4. Will the Commission update its current TAC proposal once scientific advice in terms of quota top-ups has been incorporated, and after third country negotiations have been agreed?
5. TAC (proposals) covering 'grenadiers': which species are supposed to be covered by this? The TAC proposals (and TACs) for these, e.g. GRV/514GRN, say just '*Macrourus* spp.', but there are two other species of grenadiers belonging to different genera (*Trachyrincus scabrus*, *Coryphaenoides rupestris*), for which ICES provides advice; are these meant to be included in this TAC (proposal) as well?
6. Comparisons referring to the herring stocks her-3a22 (spring spawners in IVa east, IIIa, and Subdivisions 22–24) and her-47d3 (autumn spawners in IV, IIIa, VIId) appear to be particularly difficult to compare to the proposed/set TACs. The main reason is that ICES advice differentiates between spring in autumn spawners both of which occur (and are thus caught) partially in the same area (IIIa and IVa east), whereas the TACs are proposed/set on an area basis without details about whether they refer to spring or autumn spawners. It is thus difficult to figure out which TACs/proposals to add up for comparison with the respective ICES advice. Therefore this question is: which TACs/proposals correspond to spring vs. autumn spawners and/or how is this distinction considered in the proposed/set TACs?
7. The proposed/set TACs for sprat (SPR/03A and SPR/2AC4-C) refer to sprat AND associated bycatches, whereas the advice (spr-kask and spr-nsea) refers just to sprat, excluding bycatches (of other species). The same applies to the TAC for horse mackerel and associated bycatches (JAX/4BC7D). The values thus do not appear to be directly comparable. How is this aspect considered throughout the respective TAC proposals, i.e. do these incorporate additional information on bycatch levels and their proportion in relation to the total catches of sprat and bycatch?

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