ICES ACOM REPORT 2016

ICES ADVISORY COMMITTEE

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Minutes of the Meeting of the Advisory Committee (ACOM)

22–25 November 2016

ICES HQ, Copenhagen, Denmark

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CIEM Conseil International pour l'Exploration de la Mer

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Contents

Welcome

The ACOM Chair welcomed participants, and asked for a tour de table to introduce attendees. The meeting was attended by ACOM members/alternates from all ICES member countries and Greenland and EU observers.

See list of participants in Annex 1

1 Adoption of agenda

The agenda and the time table was presented by the ACOM Chair. An item on progress made in relation to giving aquaculture advice was requested and added to the agenda.

The agenda (Annex 2) was adopted.

2 Review of membership

ACOM was invited to review and update the ACOM membership list. Changes should be reported to the Secretariat.

3 Minutes from ACOM Consultations

The minutes from the ACOM Consultations in September were approved without further comments.

4 Review of 2016.

4.1 Chair's report to ACOM

The Chair presented the report to ACOM (Doc 4a) containing an overview of the advice delivered in 2016 and observations on the advisory process.

4.2 ACOM members review.

The ACOM members/alternates were invited to comment the chair's report and to review the advisory process and the performance of ACOM in 2016.

ACOM commended the leaderships report on ICES advisory services in 2016 and found it to give a good overview of the activities and challenges in 2016.

A number of issues were raised by several ACOM members/alternates:

- ADG membership:
  Member Countries with small institutes only have the capacity and expertise to attend a limited number of ADGs and it is expected that these ADGs are of direct relevance for their countries.
  It is important that ADGs are announced well in advance of the meetings to allow the countries to include participation in the ADGs in their national workplans. The planning of two "reserve" ADGs for the autumn 2017 already now was welcomed.
  Difficult to find experts willing to attend non-fisheries ADGs.
- Role of ADG:

ADGs should have a strong case before making changes to the draft advice. Expert Groups should be encourage to ensure that the basis for the advice is clear and well explained.

- Reference points:
  Concerns were expressed that reference points were revised too often for some stocks. It was suggested that ACOM considers to keep reference points constant for a minimum number of years.
- Workload:
  The importance of all relevant member countries participate in expert work forming the basis for advice was highlighted.
  Frustration was expressed that it is so difficult to implement changes to the way expert groups operates.
- Errors:
  The audit system does not function in most expert groups.
  Impossible to catch all errors, but ICES should develop a procedure like certified labs, or use checklists.
  Sometimes the work involved in corrections seems excessive for the issue.
  Important to proper document changes and keep the outdated advice sheets to allow readers to see what have been changed.
- Web-conferences to approve advice:
  To ensure a correct recording of advice approvals it was questioned whether the current practise of no response is taken as an approval of the advice is appropriate.

5 Council meeting October 2016

The chair gave, with reference to the minutes of the October Council meeting (Doc. 5) a short summary of the meeting with focus on the points of relevance for ACOM. The main point on ACOM's involvement in non-fisheries advice was addressed under agenda item 7.

6 ACOM Workplan 2016

6.1 Frequency of assessment;

The generic ToRs for the assessment groups included the following request:

> *With reference to the Frequency of Assessment criteria agreed by ACOM (see section 5.1 of WGCHAIRS document 03): (1) Complete the calculation of the first set of criteria, by calculating Mohn's rho index for the final assessment year F; (2) Comment on the list of stocks initially identified as candidates for less frequent assessment from the first set of criteria (adding stocks to the list or removing them would require a sufficient rationale to be provided).*
>
> *Doc 6a gives a summary of the responses to the ToR from the expert groups. The document furthermore addresses the consequences of less frequent assessment for the advice for category 1 stocks.*
>
> *ACOM is invited to review document 6a, to adopt a list of stocks suitable for less frequent assessment and to discuss the form of advice for category 1 stocks where assessments are not conducted on an annual basis.*

ACOM reviewed Doc. 6a containing a summary of the responses from expert groups to the requests to identify candidate stocks for less frequent assessments and prepared a common list of candidate stocks.

It was agreed that next step should be to consult clients and use the list as basis for the consultation. The main items to discuss with clients should be:

- The need for reducing workload for the advisory system to allow to focus on the key issues of relevance for management.
- The consequences for the advice of reducing the frequency by which candidate stocks are assessed.
- The form of advice for category 1 stocks where the assessment is not conducted on an annual basis.

ACOM furthermore discussed the need for an annual check of stock status and to use the result of the check to decide if ACOM should return to an annual advisory cycle. It was mentioned that independent of whether an assessment is conducted annually or only every two or three years data compilation and evaluation should continue to be done annually. The additional work to conduct an update assessment would be minor. ACOM was therefore of the opinion that update check assessment could be conducted with the available resources.

The issue of what to do with stocks having long term management plans was also discussed. It was agreed to address this question at the consultations.

6.2 Advice reopening procedure

ACOM at the December 2015 meeting agreed to ask the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) to evaluate the added value of the reopening process.

ACOM discussed the report from WGNSSK about the value of the reopening procedure (Doc 6b). ACOM noted the conclusions from the WGNSSK analysis that the recruitment values resulting from the reopening procedure are usually closer to the 'final' estimate than the initial meaning that the reopening procedure gives a more precise/accurate catch advice.

Three options were discussed:

Option 1: Move the whole WGNSSK in autumn to avoid the need for a reopening process.

Option 2: Keep the WGNSSK in spring but only release the advice for the stocks that can be reopened (6 fish stocks and *Nephrops*) once in fall when the very last survey index is available.

Option 3: Move all the North Sea *Nephrops* in fall (as is the case for the Celtic's). Nephrops experts would continue to participate in WGNSSK presenting the new stock/fisheries information, ensuring that the mixed fishery issue is still covered. With this option, all Nephrops stocks from the North Sea would be moved to ADGNeph (even those without surveys). This would save time in the North Sea Advice Drafting Group (ADGNS) (and ACOM web-conference to finalize the North Sea advice (WCNS)) in spring, and would remove *Nephrops* from the reopening list. This option also addresses recommendation to ACOM from ADGNS (#207) calling for *Nephrops* advice in autumn.

ACOM agreed to request the ACOM leadership to consult the clients on the reopening procedure with the aim of moving the release of the stocks assessed by WGNSSK to the autumn. If this is not acceptable to the clients the leadership should suggest to move the advice on the *Nephrops* stocks concerned to the autumn.

It was noted that the mixed fisheries advice is using the single stock assessments and the timing of the mixed fisheries advice is linked to the decision regarding reopening.

6.3 Expert groups – Benchmark processes

ACOM and the Benchmark Steering Group established in December 2015 a joint Group to develop a proposal for e new benchmark system (Joint BSG-ACOM ad-hoc subgroup to improve links between Expert Groups' and Benchmarks'). The report of the joint group was presented at an Open Session at the ASC.

The Open Session was quite critical with the suggested framework. Main criticism was on the complexity of the proposed process.

The input from the open session was discussed in a meeting of the ACOM-BSG subgroup and it was agreed to move forward on testing the use of an open scoping process to define key issues to be addressed in the advisory work within an ecoregion. The plan is to arrange a scoping workshop back to back with WGNSSK in 2017.

ACOM discussed the report of the joint group and concluded that the report and the proposal for a revised benchmark system represent the view of ACOM and that ACOM should work towards implementing the proposal. ACOM felt that the criticism presented at the Open Session at the ASC at least partly was reflecting a failure in communicating the needs for a new benchmarking system. The purpose of the proposal is to feed science and data into the ICES advisory process. Within this process, scoping activities should identify where and how improvements can be made – both in terms of single species stock assessments and more holistic ecosystem considerations. The scoping should also serve as the forum for stakeholders to present views and contribute to make the advisory process more transparent and open to inputs from stakeholders.

ACOM agreed that ownership of the process should remain with the assessment working groups. However, the Committee emphasized the importance of someone having the overall responsibility (i.e., a "Local Champion") for the entire process, since it involves multiple groups within the process and the chairs within each working group might not have the necessary purview. It is likely that a title and a position will be needed to clarify the expectations for this person.

Ultimately, the process should result in benchmarks that test the use of an assessment model (or ecosystem consideration) and associated input data in providing advice with a peer-review.

ACOM agreed to use the North Sea demersal and herring stocks as test cases and requested the ACOM leadership to liaison with the chairs of WGNSSK and the ICES Herring Assessment Working Group for the Area South of 62ºN (HAWG) to set up scoping workshops back to back with the expert group meetings in 2017.

6.4 Transparency of the advisory process

A key issue of transparency is the involvement of observers in the advisory process. This is linked to the benchmark issue, participation in expert groups and the availability of background information including technical guidelines.

The item was discussed under items 6.3 and 6.5.

6.5 Technical guidelines

ACOM reviewed the guidelines that had been identified as ready for approval. The following guidelines were approved with minor changes:

- 12.01 Advisory process
- 12.02 ICES Ecosystem Overviews
- 12.04.01 Stock categories
- 12.04.04 Timeline of advice
- 12.04.05 Hierarchy of the basis of advice and advice rule
- 12.04.08 Reopening of the advice
- 12.04.09 Definitions of stock status
- 12.04.10 Criteria for defining multi-annual plans as precautionary
- 12.05.01 Guidelines on late data submission
- 12.05.02 Reports in support of advice
- 12.05.03 Criteria for use of data in ICES advisory work

Regarding guideline 12.04.03 Reference points for category 1 and 2 stocks ACOM concluded that further work was needed and agreed to set up an advisory process (advice drafting group and ACOM web-conference) to finalise the guidelines.

6.6 Introduction to ICES advice

The introduction to be included in the 2016 advice books has been finalized and is available at the advice SharePoint (Introduction).

ACOM confirmed the agreement from the 2015 ACOM meeting for the ACOM Leadership to prepare a simplified version for publication in 2017. An error in the 2016 introduction concerning Blim was identified and the ACOM leadership was requested to ensure the error will be corrected.

6.7 Framework for advice on ecosystem impacts of fisheries

ACOM discussed the issue at the December 2015 meeting and concluded that ICES was not at the state in providing advice to be able to draft such a framework. It was agreed to contact WGECO to ask the group to consider the issue.

The ACOM leadership has discussed the issue with the chair of Working Group on Ecosystem Effects of Fishing Activities (WGECO). However, priorities have been given to developing the fisheries and ecosystem overviews, and no actions have been taken to develop the framework. The ACOM leadership wished to consult ACOM on if and how to move forward.

ACOM discussed Doc 6g and agreed that a framework is required, but that the scope (i.e. level of detail) of the framework would need defining.

It was mentioned that the aim of any such framework would be to provide consistency in advice on environmental issues and should be based on existing international agreements/frameworks such as MSFD and RSC.

It was underlined that clear management objectives are required in order for ICES to provide advice, but that the underlying assessment methods can either be chosen by ICES or defined by clients.

A consistent framework can ensure that when several working groups are tasked to contribute towards an advice process consistent/usable input can be expected.

The developed framework can also provide clarity when a request is drafted between client and ICES. A present challenge when requests between ICES and clients is defining the request question that can take 6-month to draft, a framework should support request drafting.

The need reliable data/monitoring available and link to the ongoing discussion on integrated monitoring and ICES role as end-user of data was highlighted.

It was noted that in the case when there is not sufficient monitoring data the precautionary approach should be applied.

Previous ICES work in 2005 "Guidance on the Application of the Ecosystem Approach to Management of Human Activities in the European Marine Environment" was mentioned as a source of input to developing a framework.

ACOM agreed to move forward on developing a framework with the:

Ambition:

a. To support ICES in its (envisaged) role as the main advisory body on sustainable use of marine ecosystems (in particular in MSFD context for D3, D4, D6, D11 and D1) in collaboration with JRC, EEA, RSCs.
b. Consistent, reliable and transparent advice backed up by science

Scope:

a. Covering all environmental/ecosystem advice
b. Taking into account all major environmental policies and obligations (CBD, MSFD, RSCs, national policies such as Norwegian management plans, USA and Canadian legislation etc.)
c. Level of detail: conceptual document to agree principal or a hands on advice template? Need for flexibility, yet firm enough to improve consistency

Client analysis:

a. Past and current advice: lessons learnt
b. Scrutiny/formulation of requests for advice: to enable ICES to develop independent and science based advice. Criteria to reject an request and methods to reformulate a request (e.g. scenarios to support policy decisions)
c. Understanding of (assessment) methods, terms and definitions used by clients and how mature/well developed these are
d. Understanding of the level of scientific confidence required

The following steps were identified as how to move forward on developing a framework:

1) Overview of international policy objectives
2) Overview of regional competencies
3) Analysis of past and current advice: lessons learnt
4) Review types of advice that ICES has been asked in the past
5) Consultation and management objectives

ACOM agreed to set up a scoping workshop and an subgroup consisting of Lisette Enserink, Carl O'Brien, Mark Dickey-Collas, and Sebastian Valanko. The Subgroup was requested to develop draft ToRs for the workshop to be adopted by ACOM by correspondence.

6.8 Data – link between data collectors and data users

Neil Holdsworth, ICES Data Center, presented the ongoing work to ensure a credible data supply chain in support of ICES advisory services. He showed the link between the main data sources (Regional Database (RDB), DATRAS, Catch Statistics, Bycatch and Acoustic) the Transparent Assessment Framework (TAF) and the assessment outputs. Focus was on the further developments of the RDB, DATRAS and Acoustic database.

ACOM commended on the plans for future developments of the databases and the TAF.

6.9 Fisheries overview/advice

The original plan was to publish at least four overviews in 2016. The secretariat has, based on data and inputs from expert groups prepared a first drafts of the fisheries overviews. However, there is still a number of outstanding issues and it was decided to revise the plan for release of the overviews.

ACOM discussed Doc 6i and agreed on a process aiming at releasing four overviews (North Sea, Celtic Seas, Baltic Sea, and Norwegian and Barents Seas) by early May 2017 with an ADG to be held 3-7 April 2017.

6.10 Ecosystem overviews

Four ecosystem overviews were published early this year and two more will be published in March 2017.

Next step involves developing an updating process for already published overviews including inclusion of assessments of climate changes and their impacts.

ACOM agreed on:

- Yearly updates in December of figures and tables with yearly data flow for which the Secretariat can provide automatization of the updates. ACOM will be informed about the updates but no formal approval will be required by ACOM.
- Review every 3 to five years. Formal review and updates of the overviews including revision of text, section and products and incorporation of new products (i.e. climate change, reference to the new fisheries overviews, etc.). The review to be implemented as a formal advisory process (expert group, ADG and ACOM approval).
- Climate issues should be included in new overviews and incorporated in existing overview with next review process.

7 ACOM involvement in non-fisheries advice

The issue of low ACOM involvement in non-fisheries advice was discussed at the ACOM consultations during the ASC in Riga. ACOM recognised the problem and the skewed involvement in the advisory process. To solve the problem it was agreed that ACOM will work harder at improving the composition of ACOM (including members, alternates and nominees) to better respond to non-fisheries advice. How this will be accomplished was left to the member countries.

The issue was discussed at the Council meeting in October. Council supported the approach agreed by ACOM but also recommended consideration of subgroups and making use of alternates. Though it was cautioned that given the current focus on integration, the option of sub-groups would need to be well considered.

The Council requested the ACOM Chair with the ACOM leadership to consider the current structure of the advisory process and system and consider how it can be more flexible, while ensuring the same scrutiny in the approval process regardless of topic.

The ACOM leadership therefore requested ACOM to discuss the issue once more including the pros and cons of establishing subject based subgroups of ACOM having the mandate to draft and approve the responses to requests within a given subject area.

The chairs summarized the conclusions from the ACOM consultations in September 2016, when it was discussed in subgroups how to get better ACOM involvement in non-fisheries advice processes. The chair reminded that the ACOM meeting had concluded that no changes to current system was required and that ACOM members/alternates would encourage better participation non-fisheries advice.

The chair presented a bar chart to show how many ACOM members and alternates has attended ADGs. He reminded the meeting that the quality of ICES non-fisheries advice is very high, and that the secretariat and ACOM leadership is working very well. However, it is apparent that the system is still challenged by the fact that there is very little ownership of non-fisheries advice that ICES produces. The chair wanted ACOM's opinion on whether or not they felt this was a problem and if other actions would be required or suggested as improvements?

The Chair tabled a suggestion that would create two subgroups out of ACOM members/alternates, one dealing with fisheries related issues and another sub-group dealing with non-fisheries issues. ACOM members/alternates may "join" both subgroups. Once a request is received by ICES, ACOM leadership would then decide which sub group would be responsible/ownership for the process to deliver advice in response to the request.

The chair asked if ACOM members share the same concern.

Some ACOM members requested clarification if the proposed sub-groups would require additional meetings. It was emphasised that the subgroups would be within ACOM and for advice purposes only, and that ACOM would continue as usual and that sub-group ADGs WCs overlap would be avoided as usual. The meeting however felt there was still overlap with regard to planned ADGs/WCs that are fish and non-fish.

Other felt that this was a move in the right directions, and would get us closer to what we are requiring. In practical terms members were unsure on how to organize themselves nationally, as they would require involving a person with an environmental background in ACOM work. The chair thus encouraged ACOM to share how they have organized work.

In Canada ACOM work is split between on primary and four other experts, with one with an environmental background. It was however highlighted that the main ACOM member was not in a position nationally to force participation. An essential step was to get advance information on timing of upcoming advice processes (ADGs and WCs). Other smaller countries have shorter communication lines and thus easier to coordinate work.

Having ACOM alternates to be non-fisheries experts may require a physical meting for those to better know each other and become familiar with ACOM work, which may be going back to the "old" system. In practice key non-fisheries persons have described ACOM work as being too biased towards fish and thus uninteresting.

ACOM questioned whether a non-fisheries ACOM committee was required. It was however noted that non-fisheries is in the process of evolving and that better collaboration between ACOM and SCICOM would be helpful.

The Chair reminded that SCICOM is not exclusively non-fisheries, and also provides science for fisheries work.

Having two ACOM members, a non-fisheries and fisheries, could be funded by limiting ACOM meetings to one per year.

It was suggested that detailed fisheries related issues should be parked outside of ACOM discussions that should be more focused on strategic issues.

It was questioned as to why the ACOM agenda is fishy? Was it due to the persons in ACOM or is it due to the importance of fish? The Chair reminded ACOM that advice on fishing opportunities is the main source of funding for ICES advisory work.

It was highlighted that ACOM ownership of non-fisheries advice may not necessarily require in depth knowledge of the topic, but experience in the drafting of advice. Similarly, ownership the advice process as a whole would be beneficial.

It was noted that the backgrounds of the persons in ACOM were steering discussions towards more technical fishy topics. It was noted that environment issues and their indirect knock-on effects may in fact be relatively more important from a monetary perspective.

Advice/feedback on how to improve non-fisheries side of ACOM may be best received from non-fisheries persons.

It was concluded that no change for the time being is required, and that better emphasis on that ACOM consultations at the ASC should be at least less fishy.

The Chair requested the subgroup that had been tasked to look into a framework for advice on ecosystem (non-fisheries) to make suggestions as how ACOM could ensure better ownership for non-fisheries issues.

8 Framework for advice on fishing opportunities

8.1 Framework for advice on fishing opportunities for category 3 and 4 stocks (WKLIFEVI)

ACOM was invited to review the report of WKLIFEVI and discuss possible updates of the framework for category 3 and 4 stocks.

A training course on MSY proxies will be prepared for chairs and stock assessor in the beginning of 2017.

Carl O'Brien presented the results of WKLIFE VI. WKLIFE simulations show that:

- PA buffer.
  - If the size of the buffer is correct, it doesn't really matter how often it is applied. ACOM decided that the PA buffer to be applied if stock is in un-

desirable or unknown state and that the PA buffer should be maintained at 20%.

- For category 3 and 4 stocks without proxy reference points, the PA buffer should be applied unless there is good reason not to apply it and this should be documented. Especially when reference points are unknown.
- For category 5 and 6, the PA buffer should be applied unless we know reference points.
- The use of the uncertainty cap is appropriate.
- The 2/3 rule (method 3.2) is more precautionary than 3/5 as the survey index.

❖ Fmsy

- F=M as a proxy for Fmsy was investigated using a lobster species as an example. In this case, F=3/4M can be advised to prevent SSB falling below SSBo. This doesn't quite answer the ToR, but it does show an appropriate method for shellfish.

❖ Advice rule

- The MSY proxies are used to assess stock status and not as basis for ICES advice.
- The current advice rule is a pa rule and not MSY.
- ICES should develop a MSY advice rule for category 3 and 4 stocks.

ACOM agreed to initiate the work by organizing a scoping workshop in the beginning of 2017 followed by WKLIFE VII in the autumn.

8.2 Issues raised at ADGs and ACOM web-conferences

A number of issues for which clarification is required had been raised at Advice Drafting Groups or ACOM web-conferences. Doc 8b listed these issues and provide suggestions for how to address them. ACOM was invited to review and approve the suggested approaches.

As a follow up of some recommendations concerning the advice on fishing opportunities, Doc 8bi presented a proposal for the catch options table for discussion, Doc 8bii a proposal for first page plots format in the advice sheet for discussion, and Doc 8biii a proposal for stock codes naming, for information.

- Recommendation id: 165 Recommendation from ADGCS and WCSE**:** *For the 2 vs 3 index rule, the ADGCS suggest the following text in the catch option section …. A 'comparison' should be corrected to 'ratio'… since comparison does not necessarily cover a division.*

  ACOM agreed with the recommendation and that for 2017 the text in the catch option table for categories 3 stock be revised to: "The ICES framework for category 3 stocks was applied (ICES, 2012). The [survey index used] was used as the index of stock development. The advice is based on the ratio ~~a comparison~~ of the two latest index values (index A) with the three preceding values (index B), multiplied by the recent advised landings."

- Recommendation id: 206. Recommendation from ADGNS**:** *The ADG took the view that if a management plan exists and it is not in conflict with another management strategy, traffic lights will be presented for stock status. It is recognized that this*

is in contravention of recent guidelines, but is put forward as an ADG recommendation.

The ACOM agreed that the pictograms should only the presented for the management plan row when the management plan is actually used as basis of the advice.

- Recommendation id: 159. Recommendation from ADGHANSA: *In relation to the Iberian sardine stocks (sar-soth), the ADG reviewed Table 7.3.27.3 [catch options] and discussed the column "% Catch advice change". It is not clear to the ADG what should be the basis for calculating this metric in cases where the advice does not result in a TAC, as is the case for the sar-soth. Other examples where the basis for comparison is not clear, includes cases where the landing obligation is partly implemented. The ADG would recommend that ACOM clarifies this question and set up a rule for what should be compared in cases where this is not obvious, and if this column should possibly be left out in some cases.*

  ACOM agreed that it should be up to the ADG to decide what the calculations should be based on. It is too complex to make general rules/guidelines and the column is not obligatory. If it doesn't make sense to include it, don't.

- Recommendation id: 151 Recommendation from ADGANW: *The use of pictograms represents an oversimplification and is open to misinterpretation. The current use of pictograms can have a negative impact on the clarity of the advice and the message that we are trying to communicate.*

  This matter was discussed at the 2016 ACOM meeting, where the conclusion was "ACOM concluded that the pictograms should be maintained and that the rounding needs clarification. ACOM furthermore agreed not to reopen this issue for a number of years since there is not agreement on a new proposal."

- Recommendation id: 197. Recommendation from ADGEF: *In the History of advice table, I would find very helpful to have the % change in addition to 'precautionary approach': i.e. 'precautionary approach (2014 advised landings +20%)'. This allows to have the full history directly of the past advice directly (instead of having to compute the % change or to refer to previous advice sheets). This will affect all cat 3-6 stocks.*

  ACOM agreed not to include the % calculations. The calculation is apparent in the catch options table.

- Recommendation id: 205. Communicating uncertainty. Recommendation from ADGPOUT: *General discussion on how to communicate uncertainty: ICES is currently replacing traditional stock assessment models with models capable of handling stochastic uncertainty. We will be able to make probabilistic forecasts and this will improve our advice considerably. How to interpret and how to communicate this uncertainty represents a challenge in itself since our clients need to understand our basis for advice. The ICES precautionary approach using PA points was a much needed pragmatic solution in its time, but can now be replaced with an improved basis for advice.*

  ACOM took note of the recommendation.

- Recommendation id: 227. Recommendation from ADGNEP: *Regarding the use of MSYREF4 and MSYProxy as the basis of advice we need to identify what our policy is for applying them. We use them most of the spring advices, though not all (e.g. angler 7/8), but we do use them comprehensively in these drafts.*

This item was discussed under agenda item 8.1.

- Recommendation from WCWIDE - Doc 8bi. Catch options table.

  It was agreed to maintain the rationale for the option but as row instead of column as shown in the example below (cod-347d):

Basis	Total catch (2017)	Wanted catch* (2017)	Un-wanted catch* (2017)	F_{total} (2017)	F_{wanted} (2017)	$F_{unwanted}$ (2017)	SSB (2018)	% SSB Change **	% TAC Change wanted catch***
ICES advice basis									
MSY approach: F_{MSY}	47359	39651	7708	0.33	0.23	0.1	181374	3	−2
Other options									
EU–Norway Management Strategy (MS) with previous reference points: Long-term phase	55876	46754	9122	0.4	0.28	0.12	171971	-2	16
EU–Norway MS with new reference points: Long-term phase	55876	46754	9122	0.4	0.28	0.12	171971	-2	16
F = 0	0	0	0	0	0	0	192601	34	−100
F_{pa}	57039	47740	9299	0.41	0.29	0.12	170652	−3	18
F_{lim}	75481	63192	12289	0.58	0.41	0.17	149955	−15	56
SSB (2018) = B_{lim}	105033	87793	17240	0.91	0.64	0.27	118000	−33	117
SSB (2018) = B_{pa}	61928	51863	10065	0.45	0.32	0.13	165000	−6	28
SSB (2018) = MSY $B_{trigger}$	61928	51863	10065	0.45	0.32	0.13	165000	−6	28
TAC_{2016} − 20%	38404	32335	6069	0.26	0.18	0.08	192162	9	−20
TAC_{2016} − 15%	40813	34356	6457	0.28	0.20	0.08	189519	7	−15
TAC_{2016} − 10%	43224	36377	6847	0.30	0.21	0.09	186772	6	−10
TAC_{2016} − 5%	45635	38398	7237	0.32	0.22	0.10	184025	4	−5
Constant TAC	48049	40419	7630	0.33	0.24	0.09	181234	3	0
TAC_{2016} + 5%	50464	42440	8024	0.35	0.25	0.10	178427	1	5
TAC_{2016} + 10%	52879	44461	8418	0.37	0.26	0.11	175714	0	10
TAC_{2016} + 15%	55295	46482	8813	0.39	0.28	0.11	173017	−2	15
TAC_{2016} + 20%	57713	48503	9210	0.42	0.29	0.13	169100	−3	20
F_{2016}	52735	44156	8579	0.37	0.26	0.11	175461	0	9

- MSY advice rule:

  The ACOM leadership had suggested the following advice rules for category 1 stocks:

  i. If SSB_{2018} > MSY $B_{trigger}$.; F = F_{MSY}, presented as "ICES MSY approach: F_{MSY}" ;

  ii. If SSB_{2018} < MSY $B_{trigger}$; F = F_{MSY} x SSB_{2018} /MSY $B_{trigger}$, presented as "ICES MSY approach: F_{MSY} x SSB_{2018} /MSY $B_{trigger}$ and another option with F_{MSY}, presented as "F_{MSY}";

  iii. If F_{MSY} x SSB_{2018} /MSY $B_{trigger}$ results in SSB_{2019} being below B_{lim}; F corresponding to SSB_{2019} = $B_{lim.}$ presented as "ICES MSY approach: F corresponding to SSB_{2019} = B_{lim}" or zero catch if SSB_{2019} remains below B_{lim}, presented as "ICES MSY approach: F=0";

  ACOM could not accept an advice rule that automatically would lead to zero catch advice. ACOM agreed to maintain the current advice rule for iii:

  iii. If F_{MSY} x SSB_{2018} /MSY $B_{trigger}$ results in SSB_{2019} being below B_{lim} additional conservation measures may be recommended to prevent a further decline. This may involve zero catch advice.

- Mixed fisheries options included in the catch options table?

  It was agreed to await until the MoU with EU for 2017 is in place.

- Number of catch options.

  ACOM agreed to use ame procedure as 2016 – if EU has a stake, include all options. If not, be flexible.

- Stock assessment graphs.

  ACOM agreed to use the same rules as applied in 2016.

8.3 Rounding

Rounding of figures presented in advice was discussed at the 2015 ACOM meeting and the Committee supported a proposal presented by Subgroup B and the leadership promised not to put the rounding on the ACOM agenda again. However, the suggestion from Subgroup B is complicated and has not been implemented. The ACOM leadership has tried to simplify the rules for rounding (Doc 8) and ACOM was invited to approve the rules.

ACOM agreed the following rules:

1. The full and actual value of all numbers should be used in calculations with the precision available on the computer used.

2. Where numbers are presented in ICES advice sheet they should be used in rounded form according to the following rules:

   - Biomass: Should be provided in tonnes and rounded to nearest tonnes.
   - Number of individuals: Should be provided in thousands rounded to nearest thousand.
   - Other numbers:
     i) Rounded to two significant figures when the first significant figure (first non-zero digits) is 2 or larger.
     ii) Rounded to three significant figures when the first significant figure (first non-zero digits) is 1.

Rounding F values	
Actual value	Rounded value
0.35776	0.36
0.34665	0.35
0.12665	0.127
0.001567	0.00157
0.002567	0.0026
0.013415	0.0134
0.02315	0.023

Rounding Harvest, discard rates,	
Actual value	Rounded value
9.546% 10.546% 23.445 %	9.5% 10.5% 23%
Rounding SSB/biomass values	
Actual value	Rounded value
48 650 48 445 10 555 10 520	No rounding No rounding No rounding No rounding

The secretariat was requested to develop guidelines for how to apply the rounding rules including examples.

8.4 Short-lived species – advice approach

Doc 8d discussed the current advice approaches used by ICES for short-lived species with focus on the escapement strategies. The document identified a number of issues to be addressed.

ACOM decided to set up a series of workshops, similar to the WKMSYREF series to investigate these key issues. Suggested to start at the beginning by looking at escapement vs. F strategies in how we provide advice. This work should be conducted within an MSE, and the operating model should be specified by ACOM in advance. Include timing of the fishery and the assessment. ICES should communicate with all clients in advance and throughout this work.

A Subgroup (Harald Gjøsæter and Morten Vinther) was requested to develop ToRs for a workshop.

9 Review/audit process

An increasing number of typos and errors are discovered after advice release and ICES has this year issued more than 35 corrections. While the clients appreciate that ICES is open and transparent on errors they have also asked what action has been taken to reduce the number of errors. The large number of errors question the efficiency of the current review/audit system and ACOM is invited to discuss how to improve it.

ACOM analysed the corrections in 2016 and found that:

13 (52%) caused by copy and paste errors, wrong transfers of data or information from the reports into the advice etc.

5 (20%) errors in the application of information in non-recurrent advice.

3 (12%) input data errors or the use of data without observing the limitations of the data properly.

2 (8%) caused by insufficient communication within the advisory system.

2 (8%) were caused by new data not available before.

ACOM discussed possible solutions and concluded:

(a) Copy and paste errors: Use of automated systems like CARA, TAF, and checklists

(b) Non-recurrent advice, data use: No immediate solution, external reviewers?

(c) Input data errors: no immediate solution

(d) Wrong basis: improve internal communication

(e) No error but new data: no need for action

The secretariat was requested to develop a checklist that can be used by expert groups in their internal audit.

10 ACOM/SCICOM Joint Steering Groups and Strategic Initiatives.

ACOM took note of the reports.

11 Recommendation to ACOM

ACOM was invited to review the recommendations.

12 Advisory Workplan 2017

12.1 Requests for advice

ACOM discussed how to best tackle the EU request "improving scientific assessment of data-limited stocks in the Atlantic" that has earmarked a relative large amount of money for ICES to task experts via home institutes to carry out required work.

Given the similarities, it was discussed if WKLIFE7 could take this task on as a parallel process. Preparation would be required to tackle data issues. A similar scoping was done in the proxy work process.

Given that ICES in general work on a volunteer basis, it was noted that care should be taken as to how this extra money is allocated and work prioritised. ICES would need to be the go between for this.

It was noted that a strengthening of collaboration between the methods group in DTU AQUA and secretariat is underway. Furthermore the ICES working group on biological parameters would have expertise to contribute. Experiences learnt in the benchmarking process could also be drawn upon.

ACOM concluded that a targeted workshop would be organized in early 2017, to both go through stocks and suggest which could be lifted to category 1 stocks and for how to develop a MSY advice rule for category 3 and 4 stocks. Furthermore, the workshop would be tasked to develop a roadmap to describe the process required to

go through and resources needed leading up to WKLIFE7 in October 2017. TORs for the workshop would need to be drafted as soon as possible.

To take this work forward it was decided that an ACOM steering group would be established to work with the leadership. France, UK and Portugal volunteered, and it was suggested that Carmen from the leadership be involved.

Initiating this work would also require a close dialogue with the Commission.

12.2 ToRs for ACOM and joint ACOM/SCICOM expert groups. New TORs and follow up on decisions taken at ACOM Web-Conference 7 October 2016

Resolutions for the next ACOM meeting were revised. It was thought beneficial that the two meetings have alternate themes, so that the ASC ACOM consultations was less fishy to ensure a broader audience and encourage non-fisheries ACOM alternates.

The release date of NW Capelin Advice was discussed. ACOM decided that Greenland and Iceland, in consultations with NEAFC, make a proposal to ACOM on the release date.

12.3 Stock assessors and coordinators

ACOM took note of the list. UK and France agreed to allocate resources to help the stock coordinator for the northern hake stock.

12.4 ADG

A list of 2017 Advice Drafting Groups (Doc 12d) was presented to ACOM. For Advice Drafting Group on Deep Sea Stocks (ADGDEEP) and Bay of Biscay Advice Drafting Group (ADGBIE) chairs were still to be identified. Joanne Morgan, Canada volunteered to Chair ADGDEEP, ADGBIE was still outstanding after the meeting.

Two ADGs, ADGSeptember and ADGOctober, were scheduled for potential non-recurrent request. Chairs for the two ADGs will be identified if the groups are needed.

The Leadership involvement in the ADGs was discussed and the leadership was asked to look into the chairmanship of environmental ADGs, it was not found healthy that they were all chaired by the leadership. Also it was requested if some environmental ADGs could be considered to work by correspondence as it would them make it possible for more countries to attend.

ACOM members had been asked to provide nominations before or during the meeting and the countries that had not made any nominations were asked to provide those as soon as possible. When all nominations have been received the Secretariat will identify gabs and ask for further nominations for the groups that are missing participants.

12.5 Meetings with Recipients, ToR and agenda for MIRIA

ACOM approved the ToRs

12.6 Meetings with stakeholders, ToRs and agenda for MIACO

ACOM approved the ToRs

12.7 Meeting with chairs (WGCHAIRS)

ACOM approved the ToRs

12.8 Scheduling ACOM meeting at ASC and annual meeting in 2017.

ACOM was invited to discuss the setup of ACOM meetings (number of meetings, timing, and duration) ACOM concluded not to make any changes to the setup for 2017. ACOM Consultations in connection with the Annual Science Conference in Fort Lauderdale, Florida, US will be scheduled for 17 September and the 2017 ACOM meeting will take place in Copenhagen, Denmark 28 November – 1 December.

12.9 Benchmark proposal for 2018

ACOM reviewed the proposed benchmarks for 2018 and discussed several ways to organize the stocks into groupings – without arriving on a concrete way of grouping the stocks. As this list is prone to change, the Secretariat will laisse with ACOM Leadership to maintain a current list and to devise how the stocks should be grouped.

13 ACOM Workplan 2017

ACOM was invited to discuss and approve the ACOM Workplan for 2017

ACOM identified the following as priority area for the Committees strategic work in 2017:

- Frequency of assessments. Procedures and practices to reduce the frequency of assessments.
- Reopening. Adjustment of the reopening procedure to produce better advice, reduce workload.
- Technical guidelines. Continue the development of guidelines including a checklist, to avoid errors that are increasing in our assessments and advice.
- Introduction to the advice. Revision to be available by June 2017.
- Ecosystem advice. Development of a framework for ecosystem advice.
- Fisheries overviews. Finalise and release the agreed fisheries overviews.
- Ecosystem overviews. Implement the agreed update and review plan.
- Non-fisheries advice. ACOM Leadership was requested to work for a better attendance to non-fisheries advice and to ensure that not all ADGs are chaired by the leadership.

14 AOB

Aquaculture advice

ACOM was informed about the developments in reestablishing a structure for ICES aquaculture work. It has been agreed to create a Council Strategic Initiative on Aquaculture (CSIAQUA), which will be given the task of developing a frame-

work structure for ICES aquaculture research. CSIAQUA will meet in February 2017.

Annex 1 List of participants

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Annex 2 Draft annotated agenda

Welcome

1) Adoption of agenda (Doc 1)

ACOM is invited to adopt the agenda.

2) Review of membership (Doc 2)

ACOM is invited to review and update the ACOM membership list. Changes should be reported to the Secretariat.

3) Minutes from ACOM Consultations (Doc 3)

ACOM is invited to approve the minutes.

4) Review of 2016

a) **Chair's report to ACOM (Doc 4a);**

The Chair's report (Doc 4a) contains an overview of the advice delivered in 2016 and observations on the advisory process.

b) ACOM members review.

ACOM is invited to review the advisory process and the performance of ACOM in 2016 based on the report from the Chair and input form ACOM members.

5) Council meeting October 2016 (Doc 5)

Doc 5 includes a summary of the actions of direct relevance to ACOM agreed by the Council at the October meeting.

6) ACOM Workplan 2016 (Doc 6)

a) Frequency of assessment (Doc 6a);

The generic ToRs for the assessment groups included the following request:

> *With reference to the Frequency of Assessment criteria agreed by ACOM (see section5.1 of WGCHAIRS document 03): (1) Complete the calculation of the first set of criteria, by calculating Mohn's rho index for the final assessment year F; (2) Comment on the list of stocks initially identified as candidates for less frequent assessment from the first set of criteria (adding stocks to the list or removing them would require a sufficient rationale to be provided).*

Doc 6a gives a summary of the responses to the ToR from the expert groups. The document furthermore addresses the consequences of less frequent assessment for the advice for category 1 stocks.

ACOM is invited to review document 6a, to adopt a list of stocks suitable for less frequent assessment and to discuss the form of advice for category 1 stocks where assessments are not conducted on an annual basis.

b) Advice reopening procedure (Doc 6b);

ACOM at the December 2015 meeting agreed to ask the WGNSSK to evaluate the added value of the reopening process. ACOM is invited to discuss the report of the group (Doc 6b).

c) Expert groups – Benchmark processes (Doc 6c);

ACOM and the Benchmark Steering Group established in December 2015 a joint Group to develop a proposal for e new benchmark system (Joint BSG-ACOM ad-

hoc subgroup to improve links between Expert Groups' and Benchmarks'). The report of the joint group was presented at an Open Session at the ASC.

The Open Session was quite critical with the suggested framework. Main criticism was on the complexity of the proposed process.

The input from the open session was discussed in a meeting of the ACOM-BSG subgroup and it was agreed to move forward on testing the use of an open scoping process to define key issues to be addressed in the advisory work within an ecoregion. The plan is to arrange a scoping workshop back to back with WGNSSK in 2017.

ACOM is invited to discuss the issue and advice on how move forward on improving the benchmark system

d) Transparency of the advisory process

A key issue of transparency is the involvement of observers in the advisory process. This is linked to the benchmark issue, participation in expert groups and the availability of background information including technical guidelines. ACOM is invited to discuss the issue under points 6c and 6e.

e) Technical guidelines (Doc 6e)

Doc 6e provides a list of contents for guidelines and the status of each of the guidelines. ACOM is invited to discuss the guidelines and to approve guidelines identified as being ready for approval.

f) Introduction to ICES advice

The introduction to be included in the 2016 advice books has been finalized and is available at the advice SharePoint (Introduction). The ACOM leadership will, as agreed by ACOM in December last year, prepare a simplified version to be published in 2017.

g) Framework for advice on ecosystem impacts of fisheries (Doc 6g)

ACOM discussed the issue at the December 2015 meeting and concluded that ICES was not at the state in providing advice to be able to draft such a framework. It was agreed to contact WGECO to ask the group to consider the issue.

The ACOM leadership has discussed the issue with the chair of WGECO. However, priorities have been given to developing the fisheries and ecosystem, and no actions have been taken to develop the framework. The ACOM leadership wishes to consult ACOM on if and how to move forward and has prepared a discussion document (Doc 6g) addressing the background and possible layout of a framework. ACOM is invited to discuss the need for a framework and if appropriate how best to move forward.

h) Data – link between data collectors and data users

The Data Center and the ACOM leadership will report on developments on data issues of relevance for ICES advisory services.

i) Fisheries overview/advice (Doc 6i)

The original plan was to publish at least four overviews in 2016. The secretariat has, based on data and inputs from expert groups prepared a first drafts of the fisheries overviews. However, there is still a number of outstanding issues and it was decided to revise the plan for release of the overviews. ACOM is invited to discuss and approve the process to finalize the overviews as outlined in Doc 6i.

j) Ecosystem overviews (Doc 6j)

Four ecosystem overviews were published early this year and two more will be published in March 2017.

Next step involves developing an updating process for already published overviews including inclusion of assessments of climate changes and their impacts.

7) ACOM involvement in non-fisheries advice (Doc 7)

The issue of low ACOM involvement in non-fisheries advice was discussed and the ACOM consultations at the ASC in Riga. ACOM recognised the problem and

the skewed involvement in the advisory process. To solve the problem it was agreed that ACOM will work harder at improving the composition of ACOM (including members, alternates and nominees) to better respond to non-fisheries advice. How this will be accomplished was left to the member countries.

The issue was discussed at the Council meeting in October. Council supported the approach agreed by ACOM but also recommended consideration of sub-groups and making use of alternates. Though it was cautioned that given the current focus on integration, the option of sub-groups would need to be well considered.

The Council requested the ACOM Chair with the ACOM leadership to consider the current structure of the advisory process and system and consider how it can be more flexible, while ensuring the same scrutiny in the approval process regardless of topic.

The ACOM leadership therefore requests ACOM to discuss the issue once more including the pros and cons of establishing subject based sub-groups of ACOM having the mandate to draft and approve the responses to requests within a given subject area.

8) Framework for advice on fishing opportunities

a) Framework for advice on fishing opportunities for category 3 and 4 stocks (WKLIFEVI)

ACOM is invited to review the report of WKLIFEVI and discuss possible updates of the framework for category 3 and 4 stocks.

A training course on MSY proxies will be prepared for chairs and stock assessor in the beginning of 2017 (Doc 8a).

b) Issues raised at ADGs and ACOM web-conferences (Doc 8b)

A number of issues for which clarification is required have been raised at ADG or ACOM web-conferences. Doc 8b also listed these issues and provide suggestions for how to address them. ACOM is invited to review and approve the suggested approaches.

As a follow up of some recommendations concerning the advice on fishing opportunities, Doc 8bi presents a proposal for the catch options table for discussion, Doc 8bii a proposal for first page plots format in the advice sheet for discussion, and Doc 8biii a proposal for stock codes naming, for information.

c) Rounding (Doc 8c)

Rounding of figures presented in advice was discussed at the 2015 ACOM meeting and the Committee supported a proposal presented by subgroup B and the leadership promised not to put the rounding on the ACOM agenda again. However, the suggestion from subgroup B is complicated and has not been implemented. The ACOM leadership has tried to simplify the rules for rounding (Doc 8) and ACOM is invited to approve the rules.

d) Short-lived species – advice approach (Doc 8d)

Doc 8d discussed the current advice approaches used by ICES for short-lived species with focus on the escapement strategies. The document identifies a number of issues to be addressed. ACOM is invited to discuss doc 8d and to agree on a process to resolve the outstanding issues.

9) Review/audit process (Doc 9)

An increasing number of typos and errors are discovered after advice release and ICES has this year issued more than 35 corrections. While the clients appreciate that ICES is open and transparent on errors they have also asked what action has been taken to reduce the number of errors. The large number of errors question the efficiency of the current review/audit system and ACOM is invited to discuss how to improve it.

10) ACOM/SCICOM Joint Steering Groups and Strategic Initiatives

- **a) Report of Joint Steering Groups;**
- **b) Report of Strategic initiatives;**
- **c) Benchmark Steering Group, ToRs and chairs.**

11) Recommendation to ACOM (Doc 11)

ACOM is invited to review the recommendations and to agree on actions as appropriate.

12) Advisory Workplan 2017

- **a) Requests for advice (Doc 12a);**
- **b) ToRs for ACOM and joint ACOM/SCICOM expert groups. New TORs and follow up on decisions taken at ACOM Web-Conference 7 October 2016. (Doc 12b);**
- **c) Stock assessors and coordinators (Doc 12c);**
- **d) ADG (Doc 12d);**
- **e) Meetings with Recipients, ToR and agenda for MIRIA (Doc 12e);**
- **f) Meetings with stakeholders, ToRs and agenda for MIACO (Doc 12f);**
- **g) Meeting with chairs (WGCHAIRS) (Doc 12g);**
- **h) Scheduling ACOM meeting at ASC and annual meeting in 2017.**

  ACOM is invited to discuss the setup of ACOM meetings (number of meetings, timing, duration).
- **i) Benchmark proposal for 2018**

ACOM is invited to approve the 2017 Workplan

13) ACOM Workplan 2017 (Doc 13)

ACOM is invited to discuss and approve the ACOM Workplan for 2017

14) AOB

15) Closing