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DCF Revision - part 4 (STECF-14-07)

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TABLE OF CONTENTS

DCF Revision - part 4 (STECF-14-07)	4
Request to the STECF	4
STECF observations and conclusions	4
Expert Working Group EWG-14-02 report.....	9
1 Executive summary	10
2 Introduction	13
2.1 Terms of Reference for EWG-14-02.....	14
3 Addressing the Terms of Reference	15
3.1 Architecture of the DCF (ToR 1)	15
3.2 Revision of the EU MAP (ToR 2).....	15
3.2.1 <i>Recreational fisheries (ToR 2a)</i>	15
3.2.2 <i>Eel & salmon (ToR 2b)</i>	18
3.2.3 <i>Data collection in the Mediterranean & Black Sea (ToR 2c)</i>	29
3.2.4 <i>International dimension of the DCF (ToR 2d)</i>	31
3.2.5 <i>By-catch of non-target species (ToR 2e)</i>	32
3.2.6 <i>Landing obligation (ToR 2f)</i>	35
3.2.7 <i>Economic issues (ToR 2g)</i>	37
3.2.8 <i>Regional coordination (ToR 2h)</i>	41
4 "Empty annexes" for the future EU MAP, outlining categories of data to be collected under the future EU Multiannual Programme (ToR 3)	46
4.1 By-catches	46
5 Any other business	49
5.1 Stomach sampling and analysis.....	49
6 Agenda and timetable of EWG 14-02	51
7 List of abbreviations.....	54
8 References	55
Annex I: Data needs for salmon	56
Annex II: Changes proposed for Reg. 199/2008 with regard to eel & salmon	61
Annex III: Data collection in the Mediterranean and Black Sea: review of the GFCM feedback on the DCF	66
Annex IV: By-catch data collection	67
Annex V: Detailed comments on economic data collection in the aquaculture and processing industry	69
9 Contact details of STECF members and EWG-14-02 list of participants.....	71
10 List of Background Documents.....	77

DCF Revision - part 4 (STECF-14-07)

**THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN
BRUSSELS, BELGIUM, 24-28 MARCH 2014**

Request to the STECF

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

STECF observations and conclusions

EWG 14-02 was the 4th DCF revision meeting. Prior to these, four meetings on the revision of the new DCF were held. STECF recognises that the progress made by the working group throughout the process has been successful, but slow. With the completion of EWG 14-02, STECF considers that all major scientific and procedural issues related to the EU data collection have now been satisfactorily addressed by STECF and submitted to the Commission as input for the drafting of the regulation.

STECF notes that EWG report sections proposing amendments of existing legal text are not intended to be precise legal text, but are simply intended to provide guidance to the Commission in response to the Terms of Reference.

EWG 14-02 successfully addressed the extensive list of terms of reference under the following headings:

1. *Architecture of the DCF: Identification of which provisions could be removed from the current EU MAP and devolved to either Regional Coordination Groups (RCGs) or to Member States.*

STECF endorses all conclusions of EWG 14-02 under this ToR (section 3.1) and makes the following observation:

The current highly prescriptive requirements of the DCF regarding sampling size have resulted in both under- and over-sampling of data. STECF observes that there is a need to increase the flexibility in the sampling methodology and sample size by delegating decisions on sampling levels to the regional level. The STECF therefore considers that a move towards a model with greater delegation to Regional Coordination Groups (RCGs) and PGECON, leaving key aspects (species, variables and periodicity) at the EU level, is desirable. However, in the case of stocks and fleets managed in multiple areas, coordination and oversight between the regional groups might be necessary.

2. *EU MAP outstanding issues*
 - 2.1 *Recreational fisheries*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.1).

2.2 *Eel & salmon*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.2) apart from the following:

EWG 14-02 concluded that data on wetted area habitat reported by water type, should be included as a core variable of the EU MAP. However, STECF concludes that this habitat variable falls outside the current scope of the DCF. Should there be an end-user requirement for such information, the data should instead be collected at the regional level.

STECF concludes that the pilot studies for eel suggested by the Expert Group are basic research projects, which are beyond the scope of the DCF.

Despite the potential benefits of extending current data collection of salmon, STECF stresses that there are currently several hundreds of populations of salmon in Europe. The decision on which salmon populations to sample therefore needs to be end-user driven and should include due considerations of the added sampling costs.

2.3 *Data collection in the Mediterranean & Black Sea*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.3).

2.4 *International dimension of the DCF*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.4) and makes the following observations.

STECF supports the solutions suggested by the EC that the EU MAP should refer explicitly to Regional Fishery Organisations (RFOs) and to international waters in which EU fishing activity is taking place under Sustainable Fisheries Partnership Agreements (SFPAs). This approach would eliminate the existing gaps, both in the scope of current DCF relating to EU fishing activities in international waters that are not covered by RFMOs and in EU data provision to certain international scientific and management organisations. STECF notes that in cases where new SFPAs are being established, this would mean an expansion of the scope of the data collection for some Member States.

2.5 *By-catch of non-target species*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.5) and makes the following observation:

STECF considers that the list of species to be sampled should be specified as core variables in the EU MAP. STECF notes that it should be up to the Regional Coordination Groups (RCGs) to identify and prioritise the fishery/species combinations that need to be monitored and sampled for bycatch of non-target species including protected, endangered and threatened species (PETS). STECF also stresses that collection of by-catch data for PETS should always be done at the species level.

2.6 *Landing obligation*

STECF endorses all the conclusions of the EWG 14-02 under this ToR (report section 3.2.5) and makes the following observation:

EWG 14-01 and EWG 14-02 both note that the introduction of the landings obligation has the potential for wide-reaching consequences for the current approaches to monitoring and control. The new CFP signals a change from the current system which is based on the monitoring of *landings*, to one where the monitoring and control of *catches* will be the main focus for the monitoring and control of TACs. STECF considers that *control* observers may have an essential function in this context. This however, may have a number of implications for the current *scientific* observer sampling programme funder under the Data Collection Framework (article 11.2, Council Regulation 199/2008).

Presently, scientific observers have no mandate for the control of fishing regulations, only to collect biological data which is used largely for stock assessment and ecosystem monitoring purposes. STECF considers that there is a continued requirement for an “at-sea” scientific data collection programme that delivers representative unbiased data collection from commercial fishing trips for the following reasons:

- Evidence exists to indicate that self-reporting of discards stipulated under the control regulation (EC regulation 1224/2009), does not provide accurate estimates of discards and only applies to TAC species.
- Scientific observers not only collect data on regulated species, but also on catches of unregulated and unwanted species.

Although a legal requirement for vessels to carry scientific observers, ships’ masters can refuse carriage on grounds of safety and space availability (Council Regulation 199/2009, art. 11.4). In practice, however, the carriage of scientific observers has tended to rely extensively on the good will of masters rather than through any legal obligation or enforced means. This may present a challenge following the introduction of the landings obligation. If masters perceive that scientific observers have a dual function of collection of biological data *and* monitoring of compliance with the landings obligation or where the data being collated could be used in subsequent legal action, it is likely that the current ‘good will’ and critically, the level of observer coverage could be severely undermined. While this may be somewhat speculative, there have been circumstances where the carriage of observers has suffered from non-cooperation by parts of the fishing industry due to such concerns. Lordan *et al.* (2011) reports a significant reduction in observer coverage due to concerns that the data collated by scientific observers was to be used for control and potentially for prosecution purposes.

STECF considers that there are a number of approaches to maintaining the collection of unbiased catch data for scientific purposes and a single approach may not be appropriate in all fishery situations. One option is to strive for a clear delineation of responsibilities between scientific observers and observers used for control and monitoring, so that Member States implement separate control and scientific observer programmes. STECF further notes, that this may pose challenges where fishers breach the landings obligation and continue to discard species to avoid premature fishery closures due to exhaustion of one or more species in a mixed-species context i.e. avoiding ‘choke issues’. In these circumstances, the role of a scientific observer could be compromised e.g. by recording illegal activity which could potentially be used for prosecution purposes or by inadvertently collecting biased data because of differences in behaviour between vessels with and without observers.

Another approach would be for Member States to opt to introduce dual-function observer programmes where observers collect biological data and monitor compliance with fisheries regulations. However, STECF notes that such an approach should aim to ensure that both scientific and control data are collected in an unbiased way. STECF has previously pointed out (EWG 13-16) that under a landings obligation, there is an increased risk of behavioural differences in discarding practices on trips where observers are not present. Such effects need to be accounted for through additional data analyses, such as size and species comparison of landings from trips with and without observers.

Recent progress in the use of remote electronic monitoring and CCTV provides a third option for collecting data from fishing vessels and schemes involving this technology may be appropriate in some

fisheries. Advantages include the opportunity to observe without the skipper being aware of when this is happening. Fish length and weight information can be collected although age sampling is not possible. Ongoing developmental work on these technologies will improve their utility and on-going trials are demonstrating how they can operate during the fishing process.

It is clear that there are major challenges to be faced in the monitoring process associated with the landing obligation and to devise an effective system a combination of all of the above options is likely to be required.

2.7 Economic issues: spatial disaggregation, data quality, aquaculture and processing

STECF endorses all conclusions of the EWG 14-02 under this ToR (report section 3.2.7 and annex V) apart from the following:

EWG 14-02 stresses the need for separation of economic data from social data and proposes that the disciplines should be treated separately by tasking social scientists with the analysis of social data (needs) and economists with the analysis of economic data (needs). In this respect, the term socio-economic can be misleading and has often led to situations where economists are asked to provide advice on social issues. STECF, however, does not endorse the establishment of a separate sub-group on social issues as the number of social indicators in the DCF is very limited and provided that experts in social science are invited, the issue could be addressed during other meetings such as PGECON.

However, any future legislation on data collection should address economic and social data in separate sections in order to distinguish between the two fields.

STECF observes that even though it would be desirable to create a dedicated formal group for issues concerning the link between economic and biological data, the number of sub-groups in the framework of the data collection are already large and demanding a lot of time and effort for concerned experts. STECF suggest that the Commission consider scheduling a one-off Expert Workshop either as an EWG in the 2015 STECF Calendar or some other forum. In addition, STECF considers that a standing request in the RCGs (for regional concerns) and in PGECON (for pan-European concerns) is introduced to monitor and discuss the link between economic and biological data and methods.

EWG 14-02 stresses the need to have a separation, in terms of revenues and costs, for those enterprises carrying out activities other than aquaculture (even if aquaculture is the main activity). STECF observes that this point has already been addressed by the previous plenary and hence it reiterates what has already been concluded on this issue (p. 15 of the STECF 13-03 report), that is: *“STECF concludes that for companies that undertake both aquaculture and non-aquaculture activities, collection of data disaggregated by activity would be very difficult or impossible and would not be cost-effective. This is because most MSs base the collection of economic data on the official statistics, where companies are classified according to their main economic activity and hence, their incomes and costs relating to secondary activities are not easily distinguishable from those relating to their main activity. STECF also concludes that a feasibility studies will be required if disaggregation of aquaculture production to farm or production unit level, disaggregation of economic data (income and costs) by type of economic activities, or disaggregation according to any other aspects of production are needed. The aim of such studies should be to evaluate if it is possible to collect data at the desired level of aggregation and the associated cost of doing so.”*

STECF has previously recommended the inclusion of some basic social indicators (e.g. the regional importance of the sector and employment) in the EU MAP (e.g. STECF 13-31, page 184). In addition, a study on the inclusion of further social indicators is important to get an overview on the potential usefulness of these. STECF notes that previous recommendations (e.g. STECF EWG 13-05 etc.) to fund such a study together with a study on collection of raw material to provide the link between fishing fleets, aquaculture, and fish processing have not yet been addressed.

2.8 *Regional coordination*

STECF endorses all conclusions of the EWG 14-02 under this ToR (report section 3.2.8).

3. *EU MAP annexes*

STECF endorses all conclusions of the EWG 14-02 under this ToR (report section 4) and makes the following observation.

Regarding transversal data, STECF notes that if an existing non-DCF source of data (Control Regulation etc.) does not meet end-user needs, it could be appropriate for such data to be collected under the EU MAP. Before such a step is taken though, it should be investigated if it is possible to firstly improve the quality in the non-DCF data source. If that is not possible, STECF suggests that the Commission and Member States evaluate whether it is feasible to use the DCF data as the primary data source. STECF notes that if the quality of non-DCF data is identified as insufficient, this information needs to be transferred back to the source to facilitate improving the source.

4. *AOB*

STECF endorses all conclusions of the EWG 14-02 under this section (report section 5.1).

EXPERT WORKING GROUP EWG-14-02 REPORT

REPORT TO THE STECF

EXPERT WORKING GROUP ON DCF Revision- part 4 (EWG-14-02)

Hamburg, Germany, 24-28 February 2014

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

1 EXECUTIVE SUMMARY

The STECF EWG 14-02 (DCF Revision - part 4) met in Hamburg, Germany, from 24-28 Feb 2014, to clarify outstanding issues on the general structure and on specific topics of within the process of the revision of the EU Data Collection Framework (DCF).

The general aspects to be discussed were (a) the overarching 'architecture' regarding the distinction between the provisions to be set at the EU level and those to be set at the regional level, and (b) the regional coordination and task-sharing, being closely linked with the architecture in terms of structure and procedures.

The specific topics that were discussed as part of the Terms of Reference were: recreational fisheries, eel and salmon data collection, data collection in the Mediterranean and Black Sea, the 'international dimension' (data collection in areas with Fisheries Partnership Agreements and in Outermost Regions), by-catch of non-target species, data collection related to the landing obligation, and economic issues.

The Commission provided the EWG 14-02 with five background documents shortly before the meeting, giving further guidance for the DCF revision process related to the general and most of the specific issues outlined above.

The EWG 14-02 has adequately addressed the Terms of Reference on the specific topics. Given the complexity of the general structural aspects (architecture, regional coordination) and the late availability of the guiding Commission background documents, however, the EWG felt that the given time frame for these agenda items was relatively short. Especially the decision-making process in regional coordination and the detailed revision of the Annexes of a future EU Multi-annual Plan (EU MAP) for Data Collection might require further elaboration.

Regarding the '**architecture**' of the DCF/EU MAP, the EWG 14-02 agreed that the preferred option ('Model B' in the Commission background document) would be to leave the core obligations on the EU level (EU MAP) and to devolve additional obligations, sampling strategy and details to the regional level. It should, however, be possible to also propose deletions of core variables at regional level after consultations with the end users and all involved parties, in order to avoid that the amount of variables is ever increasing without the option of taking those variables out that are not required anymore.

With regard to **recreational fisheries** data collection, the EWG 14-02 suggests that the list of species for which data should be collected and the detailed sampling requirements (parameters, frequency etc.) are defined after end-user consultation and evaluation by Regional Coordination Groups (RCGs).

The EWG 14-02 discussed **eel and salmon** data collection in detail for the first time in the DCF revision process and provides several suggestions for amendments of Regulation 199/2008 and Commission Decision 2010/93/EU. The revised DCF should include data collection on any diadromous species in inland waters where this is required to conduct an assessment by an end-user. For European eel, The EU MAP should explicitly specify that Member States shall collect data to (1) estimate the biomass of escaping silver eels in comparison to the management target, (2) estimate the eel mortality rates from fisheries and other anthropogenic impacts, and (3), continue eel recruitment time series where these have been identified by ICES as contributing to the annual international stock assessment process. These data may include fishery-dependent and fishery-independent variables. The EWG 14-02 considers that the EU MAP specifies that Member States shall collect data on salmon within their waters relating to: (1) all commercial and recreational fishing activities and catches; (2) all salmon river stocks. This shall include maintaining time series where these have been identified by ICES as contributing to the annual international stock assessment process. The potential to collect economic data on eel and salmon fisheries should be retained within the DCF in order that they can be requested when end-users have developed the processes to apply them to management decision making.

In relation to the Term of Reference of **data collection in the Mediterranean**, the EWG 14-02 reviewed comments by the GFCM on the DCF revision and a draft document on a GFCM Data

Collection Reference Framework (DCRF). In general, the DCF is in line with the proposed GFCM-DCRF and that the modules of the Commission Decision 2010/93/EU have a similar structure to the data collection system proposed by GFCM. Specific data collection requirements on dolphinfish (fishing effort related to Fish Aggregation Devices) and red corals (catches and effort), however, should be included in the future DCF in order to be in line with data requirements identified by the GFCM. Moreover, the EWG 14-02 notes that GFCM stock assessment data formats should be standardised as much as possible, in order to be in line with EU data calls for the Mediterranean.

In order to fully implement data collection in the frame of the '**international dimension**', the EWG 14-02 suggests that the DCF scope should be expanded to explicitly refer to RFOs and to international waters in which EU fishing activity is taking place under Sustainable Fisheries Partnership Agreements (SFPAs).

Regarding the expanded scope of fisheries **by-catch data collection**, the EWG 14-02 provides detailed guidance for the recording of species and fisheries data. Based on the list of species from the relevant treaties and conventions (cf. EWG 13-18 report), the EWG 14-02 suggests that the RCGs identify adequate fisheries and/or species for sampling.

The EWG 14-02 reviewed the STECF reports on the **landing obligation** with regard to data needs. As reliable catch data are of vital importance to stock assessment and management, the EWG 14-02 considers that means to obtain reliable catch data as well as ways to evaluate the quality of data are included in the regional discard plans under the revised Common Fisheries Policy. The scientific needs are to be considered when the Control Regulation is revised and when measures on catch documentation are included in the regional discard plans. The EWG 14-02 notes that it is essential that observer programmes with a scientific purpose are kept separate from fisheries control and enforcement.

Concerning **economic issues**, the EWG 14-02 suggests that the general role and tasks of the Planning Group on Economic Issues (PGECON) should be modified according to the suggestions of the EWG 14-02. In the view of the EWG 14-02, any end users' requests for data should be addressed to the Commission, then be forwarded to an advisory body (e.g. STECF) to be analysed for relevance, type and priority, and - if the request refers to the collection or quality of economic data - be forwarded to PGECON. The EWG 14-02 again notes that the previously recommended studies on social indicators and on collection of raw material as link between fishing fleets, aquaculture, and fish processing should be conducted as soon as possible in order to have the results of both studies available before the finalization of EU MAP legislation. With regard to data needs for bio-economic modelling, prior to the introduction of additional data collection requirements, it should be investigated whether the required information could be either estimated based upon information which is already available (e.g. transversal data) or achieved through a one-time study.

The general structure and procedures of **regional coordination** were extensively discussed by the EWG 14-02, concluding that only core variables should be defined in the EU MAP, while additional variables should be left to the end-user consultation process on regional level. If there is no agreement between MS in the RCGs, the fall-back option should be to leave the variables on the EU level. The EWG 14-02 considers that efficient regional coordination requires clear rules for task-sharing in the DCF and provides guidance for this procedure. Apart from IT support (databases) for regional coordination, the EWG 14-02 suggests that quality-assured standardised tools and algorithms to support data processing and reporting in the context of regional sampling plans based on statistically sound sampling be developed. In addition to previous recommendations by STECF with regard to end-user involvement in the regional data collection process, the EWG 14-02 notes that the removal of data requirements after end-user consultation has to be considered as well, using the same criteria as the addition of data requirements.

As additional agenda item, the Commission requested that the EWG 14-02 discuss **stomach sampling and analysis** in the frame of a revised DCF. The EWG proposes that a pilot study should be conducted

to investigate and to develop a cost-effective and end-user driven multi-annual plan for the collection and analysis of stomach data for consideration in the revised DCF/EU MAP.

Due to time constraints, the proposals for **EU MAP annexes** drafted by the EWG 13-05 were not reviewed in detail, but the EWG 14-02 provided suggestions for amendments and further elaboration.

2 INTRODUCTION

Following the agreement on the Basic Regulation on the Common Fisheries Policy (Reg. 1380/2013), which includes Article 25 laying out the key principles for Member States to collect biological, technical, environmental and socio-economic data, the Commission is preparing a proposal for a revision of the Data Collection Framework (Council regulation (EC) No. 199/2008), to be submitted in 2014. This will be followed by a Commission proposal for a revision of the EU Multiannual Programme for data collection once the revised DCF is adopted.

The current Data Collection Framework Regulation establishes key provisions that are intended to continue, as they are proven to provide a well-functioning structure for data collection as part of the advisory process. However, arising from the reform of the CFP, several technical changes in the legislative framework on Data Collection are required:

1. The current data collection system focuses on providing data primarily for the management of various fisheries, while in the new CFP, data will be used to support several new policy objectives: the move to ecosystem-based fishery management and the undertaking to base all management measures on scientific information. Also, a new emphasis is put on the development of aquaculture and on an improved impact assessment of decisions on fisheries management. This requires an adjustment to the scope of data to be collected beyond the current fishery/stock specific scope;
2. The gradual introduction of a landing obligation requires a new approach to recording discards of unwanted catches, and to put in place a monitoring of the impacts of the landing obligation;
3. The transfer of responsibilities to MS and stakeholders, through reinforced sea basin coordination, calls for some adjustment of the role of Regional Coordination Groups in the area of data collection;
4. The need to improve the quality and precision of collected data;
5. Swift transmission of data to end users' needs to be ensured, which necessitates adjusting the technical rules in place for data storage and data transmission to end users;
6. More transparency and open access to fisheries data for all interested stakeholders is called for in view of a more inclusive CFP, while protecting personal data.

Consistency also has to be ensured with the fisheries control regulation¹, the Eurostat regulations² and EU environmental legislation such as Marine Strategy Framework Directive (MSFD)³, Bird action plan⁴, Cetacean by-catch regulation⁵, Habitats⁶ and Bird Directives⁷. All of these legal acts contain provision on data and information to which the Data Collection Framework Regulation must be aligned. Synergies must be profited from and duplications have to be avoided.

¹ Council Regulation (EC) [No 1224/2009](#) of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (...) and Commission Implementing Regulation (EU) [No 404/2011](#) of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy

² Regulations (EC) [No 762/2008](#), (EC), (EC) [No 1921/2006](#), (EC) [No 218/2009](#), (EC) [No 217/2009](#) and (EC) [No 216/2009](#).

³ Directive [2008/56/EC](#) of the European Parliament and the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy (Marine Strategy Framework Directive)

⁴ http://ec.europa.eu/environment/nature/conservation/wildbirds/action_plans/index_en.htm

⁵ Council Regulation (EC) [No 812/2004](#) of 26 April 2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98.

⁶ Council Directive [92/43/EEC](#) of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

⁷ Council Directive [79/409/EEC](#) of 2 April 1979 on the conservation of wild birds

The adjustments should also be in line with the Marine Knowledge initiative⁸, which intends to improve the provision and access of scientific information in all marine sciences. This initiative identified improving access to fisheries data and information as a key issue.

Discussions on revision of both the DCF and the EU Multiannual Programme (EU MAP) have been ongoing for over two years and the key issues that need to be addressed have been identified and discussed to various extents in STECF expert working groups and other fora. A broad stakeholder consultation workshop on the revision of the DCF regulation was held on 16 January 2014 focussing on the key topics for the revision. This consultation workshop revealed that there is general agreement on the substance of the topics; (1) the (limited) expansion of the scope of the DCF to adjust to the new CFP (in particular discards and ecosystem approach), (2) how to improve data quality, (3) simplification and rationalization (notably through streamlining EU legislation and devolving decision on detailed variables to MS and regional groups), (4) availability of data (in particular availability of control data for scientists and shift from data calls to pull mechanisms); (5) strengthen regional coordination. Furthermore, participants were reluctant to delete entire categories of data from the DCF and suggested simplification could be reached by introduction of IT tools, statistically sound sampling methods and reduced frequency of collection of some data. The need to reduce the burden in annual reporting was also frequently mentioned.

2.1 Terms of Reference for EWG-14-02

1. Architecture of the DCF

Identify which information/provisions/specifications regarding data to be collected and methodologies should remain in/be removed from the DCF Regulation, which could be removed from the current EU Multiannual Programme and which devolved to either Regional Coordination Groups (RCGs) or to MS. Consider also which activities are annual versus multiannual and how this affects what should be presented in the EMFF Operational Programme vs the national workplan.

2. Address outstanding issues on the data to be collected (i.e. social and economic variables, environmental, biological variables, eel and salmon issues). The exact topics to be discussed will include the following:

- a) recreational fisheries (based on a proposed way forward by the Commission – document to be provided by COM in advance of meeting).
- b) eel & salmon
- c) data collection in the Med & BS (review of the GFCM feedback on the DCF and of the GFCM proposal for a GFCM Data Collection Reference Framework)
- d) international dimension of the DCF (based on a proposed way forward by the Commission – document to be provided by COM in advance of meeting) and DCF in Overseas Territories
- e) by-catch of non-target species (elaborate on work done by EWG 13-18 and focus in particular on evaluation of costs of two proposed approaches (for incidental catches and for by-catch of bulk 'species')
- f) landing obligation – review of STECF work on landing obligation and implications for revision of EU MAP.

⁸ http://ec.europa.eu/maritimeaffairs/policy/marine_knowledge_2020/index_en.htm

- g) economic issues: data collection requirements to achieve spatial disaggregation of data for bio-economic modelling; data quality (results of 'Workshop on statistical issues and thresholds', Helsinki, Dec. 2013).
- h) regional coordination: review of detailed proposal by the Commission – will be forwarded in advance of meeting

3. Prepare a set of "empty annexes" for the future EU MAP, outlining categories of data to be collected under the future EU Multiannual Programme. This should build on the work done by EWG 13-05 in June 2013.

3 ADDRESSING THE TERMS OF REFERENCE

The EWG 14-02 work was organised in plenary discussions, including presentations, and sub-groups, see agenda in section 6. Before the meeting, participants were asked to highlight potential issues that required further discussion in the DCF review process. These issues were condensed and linked to the Terms of Reference at the start of the meeting.

The Commission provided the EWG 14-02 with five background documents shortly before the meeting, giving further guidance for the DCF revision process related to the general and most of the specific issues on the agenda.

The EWG 14-02 has adequately addressed the Terms of Reference on the specific topics. Given the complexity of the general structural aspects (architecture, regional coordination) and the late availability of the guiding Commission background documents, however, the EWG felt that the given time frame for these agenda items was relatively short. Especially the decision-making process in regional coordination and the detailed revision of the Annexes of a future EU Multi-annual Plan (EU MAP) for Data Collection might require further elaboration.

3.1 Architecture of the DCF (ToR 1)

The EWG 14-02 discussed the background document "*Architecture of the DCF and EU MAP – state of play and proposed changes, DG MARE, 21 February 2014*" (STECF EWG 14-02 Doc. 2).

In general, EWG 14-02 agreed that "Model B" is the preferred option, i.e. leaving the core obligations on the EU level (EU MAP) and devolving additional obligations, sampling strategy and details to the regional level. It should, however, be possible to also propose deletions of core variables at regional level after consultations with the end users and all involved parties (see section 3.2.8 on regional coordination), in order to avoid that the amount of variables is ever increasing without the option of taking those variables out that are not required anymore.

As this Term of Reference is strongly linked with the EWG 14-02 discussions on regional coordination, the main outcomes relevant for the architecture of the future DCF are provided in section 3.2.8.

3.2 Revision of the EU MAP (ToR 2)

3.2.1 Recreational fisheries (ToR 2a)

The EWG 14-02 was provided by the Commission with a background document regarding recreational fisheries, its state of play and the proposed changes to the DCF (STECF EWG 14-02 Doc. 4). EWG reviewed the document and addressed the outstanding issues from the document.

As recalled by the CFP basic regulation, recreational fisheries can have a significant impact on fish resources. It is also noted during the DCF evaluations that recreational fisheries is a difficult sector to sample, given the great number of fishermen, their wide dispersion and in many cases, the lack of a registration system. Despite this, MS shall ensure the continuation of data collection of recreational fisheries to assess the potential impact of the fisheries on the relevant stocks.

3.2.1.1 Definition of recreational fisheries

Currently, recreational fisheries are defined in the DCF (Reg. 199/2008) as: *non-commercial fishing activities exploiting living aquatic resources for recreation or sport*.

To ensure the definition encompasses all forms of non-commercial fishing, STECF EWG 13-18 proposed to change the definition by removing “*for recreation or sport*”. STECF EWG 14-02 agrees with that proposal.

3.2.1.2 Species for which data are to be collected

Under the current regulation, recreational fisheries cover recreational fisheries within EU marine waters as well as specific recreational fisheries for eel and salmon in inland waters. For marine waters, only recreational fisheries for sea bass, cod, sharks and bluefin tuna are considered in a regional context.

The current definition of “sharks” is described in preamble 2 of Commission Decision 2010/93/EU as Chondrichthyans, thus covering elasmobranchs (sharks, rays, skates) and Holocephali (chimaeras). However, the RCGs should set the detailed list of species relevant for its area depending on the relevance of the recreational fisheries for a certain species in relation to commercial fisheries and geographical distribution of a species.

Based on end-user consultation (ICES), a few species are proposed for future inclusion in data collection of recreational fisheries in the ICES area. For the Mediterranean and Black Sea, new species were suggested by DG MARE. Eel and salmon data should be collected in all regions.

Region	Species proposed to be included
Baltic (ICES Sub-divisions 22-32)	Sea trout
North Sea (ICES Divisions IIIa, IV & VIId) and Eastern Arctic (ICES Sub-areas I & II)	European lobster and pollack
North Atlantic (ICES Sub-areas V-XIV – excluding NAFO)	Pollack
Mediterranean and Black Sea	All highly migratory species falling under ICCAT's mandate (i.e. for which ICCAT carries out assessments).
All regions, including freshwaters	Eel, salmon

STECF EWG 14-02 is of the opinion that these species be included in the future list of species potentially subject to data collection of recreational fisheries. This proposed addition shall be evaluated by the relevant RCGs.

As a general principle, the current list of species as well as the sharks and the above mentioned species, shall be evaluated as part of future RCG tasks to avoid a data vacuum. RCGs can then be tasked to ensure data collection continues without waiting for end-user input. New species can be added to the list later following the framework in place to add data requirements based on end-user needs. Species for consideration are species that fall under TAC regulations, recovery or action plans or species that are subject to assessments.

Based on recurrent studies MS will need to evaluate the recreational fisheries in their waters to assess the potential contribution of these fisheries to the national landings. However, the impact of national recreational fisheries shall then be evaluated in a regional context to fully assess the impact of regional fisheries at a stock level. The RCGs shall set a threshold in relation to the TAC of a certain species to decide whether recreational fisheries shall be sampled.

3.2.1.3 Data to be collected

The current focus of data collection of recreational fisheries in terms of the level of removal shall be continued. The current requirement is to provide quarterly catch weights, but STECF EWG 14-02 is of the opinion that this requirement can be simplified to provide yearly catch weights. In many cases recreational fisheries are seasonal, so true quarterly numbers are often not considered relevant, moreover, the data are in general used on an annual basis. Should a specific need for quarterly data emerge, then this could be taken up through the end-user input on the data collection procedures.

Despite the expectation that recreational fisheries might cover other fractions of fish stocks than commercial fisheries, EWG 14-02 proposes to refrain from collecting biological data from recreational fisheries by default as this data collection would be very labour intensive, while the expected quality would be relative low. The default requirement shall be annual weights as a minimum. Should end-users express the need for additional biological data, then this need needs to be reviewed through the proposed process of end user consultation and the subsequent evaluation by the RCGs.

3.2.1.4 Ecosystem impact of recreational fisheries

The ecosystem impact of recreational fisheries has to be seen in the context of the commercial counterpart in terms of the amount of fish removed from the ecosystem and its impact on the food chain as a whole.

Other potential impacts are e.g. by-catch of birds and cetaceans in recreational gillnet fisheries, by-catch of fish and crustaceans in pots and by lines. In general, any impact is expected to be lower than in the commercial fishery. Moreover, as the current expertise in data collection of by-catch in commercial fishery indicates that by-catch data collection is problematic, it is highly unlikely that sufficient, quantitative data of high quality can be obtained from the recreational fishery. Hence EWG 14-02 proposes not to include the collection of ecosystem data for the recreational fishery, other than annual catches.

3.2.1.5 Conclusions

The EWG 14-02 concludes that:

- the list of species for which recreational fisheries data should be collected are defined after end-user consultation (see proposals for additions in section 3.2.1.3) and evaluation by Regional Coordination Groups (RCGs);
- the detailed sampling requirements are defined after end-user consultation and evaluation by RCGs;
- the collection of ecosystem data for the recreational fishery is not included in the EU MAP.

3.2.2 *Eel & salmon (ToR 2b)*

The EWG 14-02 identified several changes required to Council Regulation (EC) No 199/2008 and Commission Decision 2010/93/EU for eels and salmon.

3.2.2.1 Council Regulation (EC) No 199/2008

The EWG 14-02 reviewed Council Regulation (EC) No 199/2008 and noted a number of minor errors and ambiguities with regard to the way the Regulation addressed the data requirements for eel and salmon assessments. While these problems have not prevented some Member States including extensive sampling of eels and salmon in their data collection programmes in the past, they have resulted in other Member States having very limited sampling for these species.

The EWG 14-02 noted that within the CFP (Council Regulation (EU) 1380/2013, Article 4), '*marine biological resources*' includes all anadromous and catadromous species during their marine life. Article 3 of Regulation (EC) 199/2008 therefore includes data collection for other anadromous and catadromous species (e.g. trout, shads and lampreys) in marine fisheries. Reference is also made to trout and anadromous and catadromous species in parts of Commission Decision 2010/93/EU. Although the EWG did not address data collection for other anadromous and catadromous (hereafter combined as **diadromous**, see point 'd' below) species in detail, they were concerned that data from marine fisheries for these species may be of little value if information is not also collected from fisheries in inland waters. For example, there is a particular need for complete data collection on trout in the Baltic because this stock is subject to EU regulatory processes. The group therefore considered that any amendment to Regulation 199/2008 should include data collection on any diadromous species in inland waters where this is required to conduct an assessment by an end-user (see bullet 'e' below).

The EWG 14-02 noted issues with the following Articles and also recorded them on an annotated copy of the Regulation with suggested text changes (Annex II):

- a) Article 2(c): the definition of 'recreational fisheries' is limited to fishing 'for recreation or sport'. This suggests that some fisheries could be classified as neither commercial nor recreational. The group suggests that the words 'for recreation or sport' are deleted so that all fisheries are classified as either commercial or recreational (This has previously been recommended by STECF, see section 3.2.1.1).
- b) Article 2(d): there is a definition of 'marine regions' but it is unclear how inland waters are defined. The group proposes that, with respect to data collection for diadromous species, marine regions should include all inland waters in the catchments discharging into them. The group understands that marine regions already include transitional waters as concluded by STECF EWG 13-05.
- c) Article 2(j): it is unclear how 'fleet-fishery based sampling' relates to commercial and recreational fisheries for eels and salmon. However, this term only appears to be used once in the Regulation in Article 9, paragraph 2(a), where the definition is not critical.
- d) Article 2(l): under Article 3, the group has proposed that data collection for eels and salmon should be replaced by data collection for diadromous species. There may therefore be a need for a definition of diadromous species to bring this into line with the CFP, which refers to 'anadromous and catadromous species'. This could read 'Diadromous species' means all anadromous and catadromous species'.
- e) Article 3(a)(i): the Regulation currently only refers to data collection in inland waters for eels and salmon. In order to be consistent with the CFP, this should be modified to include data collection for any diadromous species, where the data are required by an end-user.

- f) Article 3(a)(i): the Regulation only includes data collection in commercial fisheries carried out by ‘community fishing vessels’. Article 2(k) refers to Regulation (EC) No 2371/2002 which defines ‘Community fishing vessels’ as ‘fishing vessels flying the flag of a Member State and registered in the Community’. Much of the commercial fishing for eels and salmon (and other diadromous species) is undertaken without vessels or from small vessels that are not required to be registered and would therefore appear to be excluded by this definition. The Regulation needs to be modified to include data collection from all commercial and recreational fisheries for eels and salmon by all methods or vessels (regardless of size or whether vessels are registered).
- g) In the following Articles, the Regulation refers only to data collection ‘at sea’. To be consistent with Article 3, these paragraphs should include monitoring and surveys in inland waters for diadromous species:
 - Article 4 only addresses ‘at-sea’ monitoring in paragraph 2(b) and research surveys-‘at-sea’ in paragraph 2(c).
 - Article 11, paragraphs 1, 2, 3 and 4 refer only to programmes ‘at sea’.
 - Article 12, paragraphs 1 and 2 refers only to research surveys ‘at sea’
 - Article 16, paragraph 4 refers only to research surveys ‘at sea’.
- h) Article 9, 2(a) refers only to ‘fleet-fishery based sampling’ which appears inappropriate to commercial and recreational fisheries for diadromous species. However, this is not critical because the list is not exclusive.
- i) Article 9, 2(b) refers only to the marine ecosystem but the potential impact of fisheries for diadromous species on inland waters should also be assessed.
- j) Article 15: Assessment of diadromous species requires data on habitat quantity and quality in inland waters to set biological reference points and assess stock abundance, which include the use of data on production per unit area. This can be accommodated within the Regulation by removing the word ‘biological’ in Article 15, 1(b)(iii). There would still be a need for the end-users to demonstrate that specific data are used in assessments.

3.2.2.2 Commission Decision 2010/93/EU

The EWG 14-02 reviewed Decision 2010/93/EU and noted numerous errors and ambiguities with regard to the way the Decision addressed the data collection requirements for anadromous and catadromous species, particularly eel and salmon. While these problems have not prevented some Member States including sampling of eels and salmon in their data collection programmes in the past, it is known to have resulted in other Member States having very limited or inappropriate sampling for these species.

The EWG 14-02 noted issues with the following sections of the Decision Annex, which deals with the Multi-Annual Community Programme:

- a) Chapter I, section 1 refers to ‘vessels’ in a number of definitions; this relates to the definition of ‘community fishing vessels’ in Regulation 199/2008. This definition does not include all commercial and recreational fisheries for anadromous and catadromous species, many of which are conducted by small vessels that do not need to be registered or without vessels at all. Data collection for diadromous species is required for all fishing methods or vessels.
- b) Chapter I, section 1 makes several references to data collection at sea. These definitions will need to be modified to include data collection in inland waters from fisheries for diadromous species.

- c) Chapter II, section A.3 refers to an evaluation of the effects of the fishing sector on the marine ecosystem. This will need to be modified to include an evaluation of the effects of the fishing for diadromous species on inland water ecosystems.
- d) Chapter II, section B provides a scheme for defining Precision Levels and Sampling Intensities. The WKESDCF (ICES 2012a) noted that there are currently major complications in calculating precision levels which arise from sorting out mandatory requirements from inherent stratification in eel surveying and sampling. Estimating populations of juvenile salmon throughout a whole river catchment can present similar problems, as can identifying where the fish from a specific river are exploited in mixed-stock fisheries. The group recommended that sampling of diadromous species within national programmes should endeavour to meet the standards of precision required for marine species, and that where this is impractical, it should be addressed through the usual derogation procedures or pilot studies.

International pilot studies might be used: to establish minimum standards for data collection on the basis of current expert judgement; to analyse achieved precision levels where adequate data bases exist; and to stimulate further analysis when and where more data become available within the framework of the EU-MAP. Separate pilot studies for eels and salmon might be required, but a joint study should be considered.

- e) Chapter III, section A refers to the collection of economic variables to evaluate the fishing sector. The meeting recognised that social and economic data are important to the management of salmon fisheries and the evaluation of eel fisheries versus other anthropogenic impacts. Although there is currently no formal process for using these data for eels or salmon, the group suggests that the potential to collect these data should be retained within the EU MAP Decision in order that end-users can request these data when they have the mechanisms to use them.
- f) Chapter III, section B sets out the requirements for the collection of biological variables, under the headings of metier-related, stock-related, transversal variables and research surveys at sea. The EWG considered that trying to fit diadromous species into the data collection framework for marine species in Decision 2010/93/EU resulted in a number of errors and anomalies. The group concluded that the extra data requirements for diadromous species should be listed separately to those for marine species in the new EU MAP Decision.
- g) Chapter III, section B1 defines metier-related biological variables. The group recognised that the principle of aggregating fisheries data according to metier is not appropriate for eel or salmon fisheries. Rather, fisheries data for eel and salmon should be disaggregated to commercial versus recreational fisheries.
- h) Chapter IV, section 4 provides for the evaluation of the economic situation of the aquaculture and the fish processing sectors. The group noted that aquaculture and fish processing sectors were important for eel and salmon, but did not consider detailed changes to Chapter IV.
- i) Chapter V deals with the evaluation of the effects of the fisheries sector on the marine ecosystem. This will need to be modified to also cover the effects of the eel and salmon fisheries sectors on ecosystems in inland waters.
- j) The Appendices provide many of the details of the data collection requirements. The group noted that there are many differences in the data requirements for eels and salmon compared with marine species, and diadromous species should therefore be listed separately in the new EU MAP Decision.

The following sections summarise the specific data requirements for eels and salmon.

3.2.2.2.1 Eel

The European eel is a panmictic stock with widespread distribution, and the stock, fisheries and other anthropogenic impacts are currently managed across EU Member States in accordance with the European Eel Regulation EC No 1100/2007, “*establishing measures for the recovery of the stock of European eel*”. This regulation sets a framework for the protection and sustainable use of the stock of European eel in Community Waters, in coastal lagoons, in estuaries, and in rivers and communicating inland waters of Member States that flow into the seas in ICES areas III, IV, VI, VII, VIII, IX or into the Mediterranean Sea. The Regulation required Member States to establish Eel Management Units (EMUs), each of which must have an Eel Management Plan (EMP).

The Commission obtains annual advice from ICES on the state of the eel stock and the management of the fisheries and other anthropogenic factors that impact it. ICES is asked to provide the EU with estimates of catches, fishing mortality, recruitment and spawning stock, relevant reference points for management, and information about the level of confidence in parameters underlying the scientific advice and the origins and causes of the main uncertainties in the information available.

The status of eel production in each EMU is assessed at national or sub-national scales to meet the terms of the EMPs. The data requirements vary considerably between countries, depending on: the management actions taken; the absence/presence of anthropogenic factors; and the type of assessment procedure applied to establish silver eel escapement limits and management targets for individual rivers, EMUs and nations and to assess compliance of current escapement with these limits/targets.

Thus, Member States have obligations to collect data on national production of European eel, and on fisheries and other anthropogenic mortality, in order to meet the requirements of ICES and EU for the international stock assessments, and to conduct national assessments to comply with EMPs, as expected by EU. The data required for the assessment and management of European eel fall into three broad categories:

- data requested annually by ICES to undertake the international assessment based on (1) a time-series of recruitment indices from fishery-dependent and -independent sources, and (2) a summation of national stock indicators of biomass and anthropogenic mortality (as reported tri-annually to the Commission).
- data requested by ICES or another scientific / technical review group to periodically (2012, 2015, 2018, 2024, & every 6 years thereafter) establish stock reference points, evaluate progress with achieving the aims of the Eel Regulation and implementation of EMPs; and
- data required by Member States to determine silver eel escapement levels relative to the target set out in the national EMPs and undertake river specific stock assessments according to EMPs.

To address these requirements, the group proposes that the EU MAP should explicitly specify the following with regard to biological variables for eel:

Member States shall collect data to (1) estimate the biomass of escaping silver eels in comparison to the management target, (2) estimate the eel mortality rates from fisheries and other anthropogenic impacts, and (3), continue eel recruitment time series where these have been identified by ICES as contributing to the annual international stock assessment process. These data may include fishery-dependent and fishery-independent variables.

Fishery variables: Where fisheries exist, data on numbers and/or weight of fish caught by location and gear type, associated fishing effort, and the length or age composition of the catch are all utilised in national assessment procedures, e.g. to derive estimates of silver eel escapement, and therefore support the international assessment. Fishing effort (expressed here as the number of gear units, per unit time) provides an important measure of fishing activity used as a predictor of exploitation rate within assessment models and to derive catch-per-unit–effort figures as indicators of fishing success or stock abundance.

The following should be explicitly specified in EU MAP:

Where fisheries exploiting European eel exist in Eel Management Units, data shall be collected annually on:

- **fishing capacity and effort;**
- **number and weight of all eel caught, separated by:**
 - **commercial and recreational fisheries**
 - **location of fishery (freshwater, transitional and coastal)**
 - **stage (eel <12 cm length*, yellow, silver)**
- **number and weight of glass eel/elver used for restocking, their capture and stocking locations**
- **biological variables of the catch (length, weight, age and sex ratio)**

Where fisheries exploiting European eel exist in Eel Management Units, and the catch exceeds 25 t of silver eel equivalents per year (as defined by ICES), abundance and distribution data shall be collected at least once in every Eel Management Plan reporting period (presently 3 years) in order to estimate fishing mortality rate.

* Note: The Eel Regulation (Reg. 1100/2007) does not refer to glass eel *per se*, but to eels <12 cm in total length; the use of the latter term in the list above can be considered synonymous with the glass eel fishery catch.

Fishery-independent variables: WKESDCF (ICES 2012a) recognised that the DCF focuses on fisheries-based assessments, but reiterated that there are other anthropogenic mortality factors likely to have an equal or greater impact on eel production in various parts of the productive area and should therefore be taken into account in any assessment. Quantifying these non-fishery anthropogenic impacts is also a requirement of the Eel Regulation (Article 3.5). In addition, some eel assessments are required for areas where fisheries do not exist, and therefore must be based on fishery-independent surveys.

Given that the Eel Regulation supports Member States in selecting and applying assessment approaches appropriate to ‘local’ conditions, it is not possible to be specific about the fishery-independent data or methods that should be included under the EU MAP.

Therefore, the EU MAP should explicitly specify that:

Member States shall define methods to conduct assessments and set levels of confidence in their Work Plans, but these methods shall qualify for the EU MAP only if they are approved by an independent scientific body (e.g. STECF, ICES, RCGs, etc.) as being relevant and using statistically sound sampling protocols.

This would mean that these independent organizations would require benchmarks to judge whether different EMUs are meeting qualifying standards for inclusion under EU MAP. These methods and data are likely to include some of those summarised in the following text, which could form the basis of a guide for RCGs or their equivalent:

Eel Index River Basins: Eel Index river basins are intensively monitored systems that employ a variety of sampling methods (e.g. use of electronic counters; traps; electrofishing surveys; tagging programmes) to produce census and other biological data for pertinent life stages (glass, yellow, silver). This information is needed to investigate and track whole life cycle processes, e.g. survival between life stages, and develop understanding of the complex relationships between recruitment and spawning stock production, to assess ‘exploitation’ rates by fisheries and other anthropogenic factors, and to ground-truth model-based estimates of production and escapement. This ground-truthing is a key part of the process to ensure the accuracy and precision of model-based estimates, which is necessary for international and national assessments. The following data should be collected under the EU MAP:

According to requirements of end-users, the following data should be collected annually for stocks in at least one Eel Index river basin per Eel Management Unit, as confirmed by ICES:

- information on abundance of recruits (glass eel and/or elvers)
- counts or estimates of the number, weight and sex ratio of emigrating silver eel

According to requirements of end-users, the following data should be collected at least once in every Eel Management Plan reporting period for stocks in at least one Eel Index river basin per Eel Management Unit, as confirmed by ICES:

- information on abundance of standing stock (yellow eel) (e.g. on a rolling multi-annual basis)
- information on anthropogenic impacts in these systems, on all life stages

Standing stock surveys: Annual surveys to establish the abundance, distribution and size structure of yellow eel are widely applied by Member States to the range of eel-producing waters within their jurisdictions. The data generated are used to inform local management at catchment scale, including through integration into procedures to assess compliance with EMP targets and as part of index river basin programmes. For eels, these data may be considered equivalent to the various fisheries surveys conducted under the DCF for marine species. These data types are also critical to the assessment of the ecological status of water bodies (sub-catchment units) to comply with the Water Framework Directive (WFD) and Marine Strategy Framework Directive (MSFD), and in that context, the EWG proposes that they should be collected under the EU-MAP:

According to the requirements of end-users, data should be collected to estimate the standing stock of eel as employed for assessing stock compliance with Eel Management Plan limits. Where practical, surveys should integrate with surveys under the Water Framework Directive and Marine Strategy Framework Directive.

Non-fishing anthropogenic impact surveys:

Non-fishing anthropogenic impacts may occur in river basins where it is not practical to implement full Eel Index River Basin sampling programmes, nor standing stock surveys. Nevertheless, data to estimate this impact are essential to comply with the requirements of the Eel Regulation.

According to the requirements of end-users, data shall be collected, at least once in every Eel Management Plan reporting period (presently 3 years), to estimate the mortality rates caused by anthropogenic factors other than fishing.

Other Biological characteristics: Member States require data on a number of biological characteristics of eel (e.g. length distribution, age profiles, growth rates, and sex ratios) on a periodic basis for national eel stock assessments. Some of this information can be obtained from the fisheries-independent sampling, although sampling programmes for age and sex ratio, both of which require the killing of fish and therefore removal from the stock, would have to be organised as distinct sampling.

The following data collection is required, estimated at Eel Management Unit level and at appropriate temporal frequencies:

- Growth rates of eel, determined at yellow and silver stages
- Sex ratio of standing stock and silver eel.

Habitat quantity and quality: ICES requires data describing wetted area habitat, by water type in order to compare national stock assessments.

The following data collection is required, estimated at Eel Management Unit level and at appropriate temporal frequency:

- Wetted area habitat (hectares), reported by water type (lacustrine, riverine, transitional & lagoon, coastal).

Pilot studies

There are a range of uncertainties and gaps in knowledge of eel production and in the methods appropriate to collect data for local, national and international assessment. Pilot studies to improve existing data collection and data management systems might include:

- A coordinated programme of work should be undertaken to address the assessment of densities or standing stock of eels in large open water bodies, such as lakes, deep rivers, transitional and coastal waters;
- A coordinated programme to assess whether eel production can be reliably predicted from environmental quality monitoring;
- To determine whether standardized surveys in community waters can, or can be adapted to, deliver data for eel assessments;
- Pilot studies to determine relevant levels of precision and data quality;
- Benchmarks to judge whether data collection programmes in Eel Management Units are meeting qualifying standards for inclusion under EU MAP;
- Quality assessment of the national stock assessment methods and associated data used to derive national stock indicators of silver eel biomass and anthropogenic mortality rates;
- To determine the impact of *Anguillicola crassus* and other parasites and diseases on eel effective spawner stock biomass, the mechanism for incorporating such impacts in the international stock assessment, and data collection programmes to provide relevant data on infection intensity and abundance;
- To determine the impact of contaminants on eel effective spawner stock biomass, the mechanism for incorporating such impacts in the international stock assessment, and data collection programmes to provide relevant data on prevalence and critical tissue levels of relevant contaminants;
- To determine the influence of natural and anthropogenic factors on silver eel ‘fecundity’, the mechanism for incorporating variations in fecundity in the international stock assessment, and data collection programmes to provide relevant data;
- Standardized larval surveys with a clear target on monitoring and evaluating eel leptocephali (or egg) densities in the Sargasso Sea, to enable more immediate detection of changes in Spawning Stock Biomass than can be achieved by monitoring medium and longer term trends in continental recruitment.

3.2.2.2.2 North Atlantic salmon

Each salmon river contains one or more genetically distinct populations, and the principal unit for the management of salmon fisheries is the river stock. North Atlantic salmon stocks are totally separate to Baltic stocks (see below), and they are subject to different and distinct management regimes. There are over 2000 river stocks in the North Atlantic of which about 700 are in EU Member States.

The EU is a signatory to the Convention for the Conservation of Salmon in the North Atlantic and thereby a Party to NASCO. The objective of NASCO is to conserve, restore, enhance and rationally manage Atlantic salmon through international cooperation taking account of the best available scientific information. One of the primary functions of NASCO is to develop regulatory measures for specified fisheries operating in the area of one Party but catching salmon originating in the rivers of another Party, e.g. in West Greenland and Faroese waters. NASCO has also established Agreements and Guidelines relating to the management of salmon by its Parties, including for the management of fisheries, the protection and restoration of salmon habitat and minimising impacts from aquaculture on wild stocks.

NASCO obtains annual scientific advice for the management of salmon stocks from ICES, including information on:

- the events in the fisheries in the preceding year, including catch and effort;
- the status of stocks;
- development/updating of stock reference points and assessment methods;
- catch options for fisheries in the NASCO Commission areas;
- significant new or emerging threats to, or opportunities for, salmon conservation and management; and
- ad-hoc questions on factors affecting stocks.

Member States have obligations to collect data on all their Atlantic salmon stocks and fisheries in order to meet the requirements of ICES and NASCO for the international stock assessments and to conduct national assessments (e.g. including compliance with conservation limits) to comply with NASCO Agreements and Guidelines, as expected by EU. The current DCF data collection programme does not satisfy many of the needs for these on a national and international level (Annex I: Table I.A).

To address the general requirement to collect data on all Atlantic salmon stocks and fisheries, the group proposes that the new EU-MAP should specify the following with regard to biological variables:

Member States shall collect data on Atlantic salmon within their waters relating to: (1) all commercial and recreational fishing activities and catches; (2) all salmon river stocks. This shall include maintaining time series where these have been identified by ICES as contributing to the annual international stock assessment process.

Fishery variables: Data on numbers of fish caught by location and gear type, associated fishing effort, and the weight and age composition of the catch are all utilised in national and international assessment procedures, e.g. to derive estimates of pre-fishery abundance or spawning escapement. Fishing effort provides an important measure of fishing activity used to estimate exploitation rate within assessment models and to derive catch-per-unit-effort (CPUE) estimates as indicators of fishing success or stock abundance.

Information on the numbers of salmon released in recreational fisheries is required to account for the contribution of these fish to total spawning escapement and track the adoption of catch-and-release as

a conservation measure. Periodic assessment of the composition of stocks in the catches of mixed-stock fisheries is required to ensure that management measures remain appropriate for the protection of individual stock components (addressing the advice of NASCO).

The group considered that the requirement to collect the following fishery data should be specified in EU-MAP:

For all fisheries exploiting Atlantic salmon, data shall be collected annually on:

- **fishing capacity and effort;**
- **number and weight of salmon caught, separated by:**
 - **commercial and recreational fisheries;**
 - **location of fishery (river, estuarine and coastal);**
 - **age class (one sea-winter & multi-sea-winter).**
- **number of salmon released in recreational fisheries;**
- **weight of ranched salmon caught; and**

For fisheries not exploiting predominantly a single stock, stock composition of the catch (at least once every 10 yrs).

Adult salmon census data: Full counts (i.e. census data) for returning salmon stocks, obtained using electronic fish counters, trapping or other survey methods, are available on a relatively small proportion of rivers throughout the NE Atlantic. Apart from producing direct measures of the numbers of returning adult fish from which to evaluate spawning escapement, they provide, in combination with catches, the information required to derive exploitation rates. The latter are a key parameter within the international assessment model as well as in many national models, in which data from a few counted rivers are applied to rivers without counting facilities in order to generate run figures for use in conservation limit compliance assessments.

Time-series of stock counts for a number of rivers are also required to apply the NASCO North East Atlantic Commission's Framework of Indicators (FWI; ICES, 2013a). Member States are required to provide data to update the selected time series in order that NASCO can run this intermediate assessment. It should be noted that the time-series of data used in the FWI will be reviewed, and may be modified, by ICES each time that a new multi-annual regulatory measure is due to be agreed.

To meet the requirements of end-users, data should be collected on counts of returning adult Atlantic salmon to selected rivers where these have been identified by ICES as contributing to the annual international stock assessment process.

Salmon index rivers: Index rivers are intensively monitored systems that employ a variety of sampling methods (e.g. electronic counters; traps; electro-fishing surveys; tagging programmes) to produce census and other biological data for both juvenile (fry/parr and smolt) and adult life stages of salmon; this may be linked with other sampling to estimate the exploitation of these stock outside their river of origin. This information is needed to investigate and track whole life cycle processes (e.g. survival between life stages) and develop understanding of the complex relationships between stock and recruitment, as well as other factors affecting management. Index river data are essential for international and national stock assessments, producing data and parameter estimates that are applied by ICES and nationally to the assessment/management of a wider range of rivers (e.g. through generic modelling applications for the derivation of Conservation Limits and compliance assessment).

To meet the requirements of end-users, data should be collected from salmon index rivers where these have been identified by ICES as contributing to the annual national and international stock assessment processes. These data may include: information on the abundance of fry, parr and smolts and the

number of ascending adults; exploitation rates; and freshwater and marine survival rates.

Juvenile salmon surveys: Annual surveys to establish the abundance and distribution of juvenile salmon (fry/parr), particularly using electro-fishing techniques, are widely applied by Member States to the range of rivers within their jurisdictions. The data generated are used to inform local management at sub-catchment and catchment scale, including through integration into procedures to assess compliance with Conservation Limits and as part of index river programmes. For salmonids, these data may be considered equivalent to the various fisheries surveys conducted for marine species.

To meet the requirements of end-users, juvenile salmon survey data should be collected annually or on a rolling basis where these have been identified by ICES as contributing to the annual national or international stock assessment process.

Biological characteristics: ICES and Member States require data on a number of biological characteristics of salmon (e.g. length, weight, age, fecundity and sex ratios) on a periodic basis (e.g. every 5 years) for the international and national salmon stock assessments. Some of this information can be obtained from the catch sampling or trapping programmes referred to above, including the index river programmes, although sampling programmes for fecundity and sex ratio, both of which might require the killing and internal examination of fish, would have to be organised as distinct sampling programmes by Member States.

To meet the requirements of end-users, biological data should be collected for Atlantic salmon on the sex ratio and fecundity of returning adults by age (one sea-winter & multi-sea-winter), estimated at a national/regional level every 5 years. **Data on salmon maturity are not required.**

3.2.2.2.3 *Baltic salmon*

Regulation COM/2011/0470 final, which has been adopted by the EP but not the Council, establishes a multi-annual plan for the management of salmon in the Baltic, with specific objectives to ensure that: the Baltic salmon stock is exploited in a sustainable way according to the principle of maximum sustainable yield; and the genetic integrity and diversity of the Baltic salmon stock is safeguarded. In support of this Regulation, the EC obtains scientific advice from ICES on the state of salmon stocks in six Baltic assessment units and the management of the fisheries that exploit them.

The current DCF data collection programme satisfies most of the needs for the Baltic salmon stock assessment (Annex I: Table I.B). The ICES Working Group on Baltic Assessment of Salmon and Trout (WGBAST) currently utilizes most of the data on Baltic salmon collected under the DCF in the Baltic salmon assessment model but also needs some additional information. In addition, more data are required for stocks in 'non-index rivers' and stocks maintained by rearing programmes to meet the requirements of the Baltic assessment model, including improving the precision of the assessments.

The following changes need to be made to the data collection requirements within Decision 2010/93/EU, relating to Baltic salmon:

- retain the requirement to collect data on salmon fisheries in the Baltic;
- retain the requirement to collect data annually for stocks in 'salmon index rivers' (as agreed by ICES) ;
- add the requirements to collect 'salmon census data' for specified non-index rivers in the Baltic (as agreed by ICES) ;
- add the requirement to collect data for 'monitored release programmes' in the Baltic (as agreed by ICES).

Therefore, the new EU-MAP Decision should specify that:

Member States shall collect data on Baltic salmon within their waters relating to: (1) all commercial and recreational fishing activities and catches; (2) all salmon river stocks. This shall include maintaining time series where these have been identified by ICES as contributing to the annual international stock assessment process.

With respect to data collection for Baltic salmon fisheries, the following should be specified in EU-MAP:

For all fisheries exploiting Baltic salmon, data shall be collected annually on:

- **fishing capacity and effort;**
- **landings and discards from commercial and recreational fisheries;**
- **composition of catches, including stock and wild/reared;**
- **biological data (age, weight & length composition, sex ratios, fecundity);**
- **coastal net and troll fishery surveys (every 4th year).**

To meet the requirements of end-users, the following data should be collected for Baltic salmon where these have been identified by ICES as contributing to the annual international stock assessment process:

- a. Salmon index river data, including:
 - information on the abundance of fry/parr;
 - information on the abundance of smolts;
 - information on the number of ascending adults; and
 - time series of population estimates, exploitation rates, freshwater and marine survival, etc.,
- b. Salmon census data, including:
 - fry/parr abundance; and/or;
 - number of ascending adults. (NB: juvenile and adult data may be collected from different rivers).
- c. Data for monitored salmon release programmes, including:
 - number of released reared smolts
 - number of returning adult reared fish
 - monitoring for M74.

3.2.2.3 Coordination of data collection across Regions

One of the problems noted with Decision 2010/93/EU is that the data collection requirements for eels and salmon varied between regions. As the international assessments of eel and salmon are conducted across wide geographic areas in the EU, it is essential that the data collection requirements are consistent across the Regions. The group considered several approaches to facilitate this, including: ensuring eel and salmon representation at each RCG; species-specific RCGs for eels and salmon or one for diadromous species; a Planning Group (like PGECON); end-user (ICES) feedback from the international assessments. As the principle of the EU MAP is that data collection requirements are driven by end-users, the group considered end-user feedback to be the most appropriate method to ensure appropriateness and consistency of data collection across regions.

3.2.2.4 Social and economic data for eel & salmon

The EWG discussed the requirement for social and economic data relating to diadromous species. Social and economic data are important for the management of salmon fisheries, for example with regard to the value of recreational fisheries and issues related to the subsistence and heritage value of commercial fisheries. One of the end-users for salmon data, the North Atlantic Salmon Conservation Organisation (NASCO), currently has a Sub Group on Socio-Economics that has investigated the standardisation of approaches to value salmon fisheries and is also working on methods for taking these values into account in making management decisions. Social and economic data are also potentially important in evaluating and prioritising management measures to reduce anthropogenic impacts of eel as required under the Eel Regulation (Reg. 1100/2007).

Although end-users currently have no formal process for using economic data in management decisions relating to diadromous species, the EWG suggests that the potential to collect these data should be retained within Regulation 199/2008 in order that they can be requested when end-users have developed the processes to apply them to management decision making.

3.2.2.5 Conclusions

The EWG 14-02 concludes that:

- the revised DCF/the EU MAP should include data collection on any diadromous species in inland waters where this is required to conduct an assessment by an end-user;
- the EU MAP should explicitly specify the following with regard to biological variables for eel: Member States shall collect data to (1) estimate the biomass of escaping silver eels in comparison to the management target, (2) estimate the eel mortality rates from fisheries and other anthropogenic impacts, and (3), continue eel recruitment time series where these have been identified by ICES as contributing to the annual international stock assessment process. These data may include fishery-dependent and fishery-independent variables.
- the EU MAP should specify that Member States shall collect data on salmon within their waters relating to: (1) all commercial and recreational fishing activities and catches; (2) all salmon river stocks. This shall include maintaining time series where these have been identified by ICES as contributing to the annual international stock assessment process;
- the potential to collect economic data should be retained within the DCF in order that they can be requested when end-users have developed the processes to apply them to management decision making.

3.2.3 *Data collection in the Mediterranean & Black Sea (ToR 2c)*

EWG 14-02 analysed the document sent by the General Fisheries Commission for the Mediterranean (GFCM) to the European Commission regarding the "*GFCM Reply to the Consultation on the future EU data collection framework 2014-2020*" (STECF EWG 14-02 Doc. 15). The EWG 14-02 provides a summary table in Annex III, reporting comments and proposed actions.

EWG 14-02 reviewed also the GFCM proposal for the "GFCM Data Collection Reference Framework" (GFCM-DCRF, Version 24 January 2014, STECF EWG 14-02 Doc. 14), comparing it with the current EU-DCF. In general, the EWG recognizes that the DCF is in line with the proposed GFCM-DCRF tasks and that the modules of the Commission Decision 2010/93/EU have a similar structure to the data collection system proposed by GFCM. EU DCF data collection requirements go beyond the requirements of the proposed GFCM-DCRF. When defining future data needs, careful

attention has to be paid to the actual use of the collected data, i.e. cases where the end-user is requiring less data than currently collected, any (continuation of) additional data collection has to be duly justified. Whilst EU MS will be able to satisfy GFCM data collection requirements, third countries have lower data collection obligations.

The GFCM proposal provides a clear definition of transversal data to be collected, including a complete coverage of fishing fleets and assessment of their reliability; EWG 14-02 suggests this approach should also be reflected in the future DCF. The 'added value' of data collection in addition to the provisions of the Control Regulation (Reg. 1224/2009), however, has to be clearly described and justified. In particular, the fleet segmentation aggregation level requested by the GFCM-DCRF proposal would in future allow Mediterranean EU Member States to report data to both the EU and the GFCM at compatible aggregation levels, overcoming previous problems with mismatching levels of data aggregation.

EWG 14-02 however identified two parameters of importance in Mediterranean fisheries which are included in the GFCM-DCRF proposal, but not in the EU DCF: (1) data on dolphinfish (*Coryphaena hippurus*) fishing effort. These effort data should be reported in terms of the total number of fishing aggregation devices (FADs) set in a fishing season / the number of FADs targeted during a fishing trip, and (2) data on catch and effort of red coral (*Corallium rubrum*) fisheries. EWG 14-02 suggests that these parameters should be included in the future DCF in order to be in line with data requirements identified by the GFCM. With regard to the dolphinfish, it is pertinent to note that STECF EWG 13-19 also proposed that *'the issue of data quality for this species should be addressed by (i) including the relevant effort parameters (total number of FADs and number of FADs targeted per fishing trip) in the DC-MAP for future monitoring'* following an attempt to carry out a stock assessment at the request of the European Commission, that was unsuccessful due to a lack of suitable data.

With regard to the proposed GFCM-DCRF Sub-Task VI.1 on stock assessment, EWG 14-02 suggests that there should be a clear distinction between (1) requesting processed stock assessment input data in preparation for GFCM stock assessment working groups, and (2) requesting full stock assessments. The latter should only be requested for stocks which are exploited by one Member country, or where joint assessments have already been conducted (for instance under the auspices of the FAO regional projects). Moreover, in order to facilitate joint stock assessments, it is important to standardize GFCM stock assessment data formats as much as possible (e.g. with regards to length class intervals, units of measurement etc.). Such standardisation should be done in a manner that is compatible with EU data calls for the Mediterranean in order to reduce the data processing burden on countries which have to submit data both to the EU and to GFCM.

Conclusions:

The EWG 14-02 concludes that:

- in general, the DCF is in line with the proposed GFCM Data Collection Reference Framework (DCRF) tasks and that the modules of the Commission Decision 2010/93/EU have a similar structure to the data collection system proposed by GFCM;
- specific data collection on dolphinfish (fishing effort related to Fish Aggregation Devices) and red corals (catches and effort), as proposed in the GFCM-DCRF, should be included in the future DCF in order to be in line with data requirements identified by the GFCM;
- GFCM stock assessment data formats should be standardised as much as possible, in order to be in line with EU data calls for the Mediterranean.

3.2.4 International dimension of the DCF (ToR 2d)

The EWG 14-02 discussed the background document outlining some issues related to data collection from the EU fishing activity outside the EU waters which are not sufficiently covered by the current DCF regulations and which shall be addressed in the future DCF (“*Data collection in international waters – state of play and proposed changes. DG MARE, 21 February 2014*”; STECF EWG 14-02 Doc. 5).

With regard to data collection obligations, the current regulation limits the scope of the DCF to RFMO-managed international waters but does not cover waters of third countries with which the EU has a Sustainable Fisheries Partnership Agreement (SFPA), unless these also fall under an RFMO. The areas of international waters where the Regional Fisheries Organizations exist but without fisheries management role (RFOs) are also not covered by the current DCF regulation (CECAF, WECAF). However, under the current execution of the DCF, CECAF is treated as an RFMO, hence sampling in the CECAF area is commenced by several MS.

In order to eliminate the existing gaps, both in the scope of current DCF relating to EU fishing activities in international waters that are not covered by RFMOs and in EU data provision to certain international scientific and management organizations only, for the revised DCF, the EWG 14-02 supports the solutions suggested by the EC to:

- expand the DCF scope to refer explicitly to RFOs and to international waters in which EU fishing activity is taking place under SFPAs.
- recall that Member States have data provision obligations under RFMOs, RFOs and SFPAs, but not repeat the detailed obligations in EU MAP, to avoid having to revise the EU MAP every time an international obligations changes. The latter may be centralized in one list for reference, e.g. on the DCF website.

In case there are more than one MS involved in fisheries in the area outside EU waters not covered by any RFMO, these MS shall be encouraged to coordinate sampling of the fisheries concerned, including coordination and cooperation with third countries operating in that fishery.

Sampling requirements in the territorial waters of the Outermost Regions (Canary Islands, Madeira, Azores and French regions) are already covered under current DCF, as these are EU waters, which shall be included in the NPs of relevant MS.

As per the current DCF, MS shall coordinate their NPs with other MS in the same marine region and make every effort to coordinate their actions with third countries having sovereignty or jurisdiction over waters in the same marine region. The Regional Coordination Meeting (RCM) for Long Distance Fisheries has been meeting annually since 2010 and no third countries have participated in this RCM so far. The EWG 14-02 is of the opinion that inviting third countries to participate in coordination meeting shall be considered on a case by case basis, because such participation is not relevant or feasible in all cases (i.e. regarding fishing activity in the SPRMFO area, where EU share in total catch is negligible). The possibility of financing the participation of third countries as observers to RCM (RCG) meetings shall be considered as eligible under the revised DCF and clarified in the regulation.

The Commission shall assess the implementation of NPs on the basis of the consultation of appropriate RFMOs to which the EU is a contracting party or observer, taking into account however, a feasibility and cost benefit analysis. It may well be that not all RFMOs requirements could be met due to financial or logistic constraints. In each case, the RFMO requirements regarding data collection shall be weighed against e.g. the share (overall contribution) of the EU fishing activity in that particular region (other criteria may include *inter alia*: political interest, use or need of EU data by RFMO, disproportional costs, access to the fishery).

Protocols and methods used for the establishment of national sampling programmes shall be in accordance with the sampling design established at the regional level by the relevant RCM (RCG), if in place, and taking into account the quality standards established by the appropriate RFMOs.

The DCF provision obliging EU vessel masters to accept scientific observers on board should also apply to EU vessels fishing outside the EU. The EWG 14-02 suggests that for SFPA and fishing activities conducted by the EU vessels outside the EU waters, either under RFMO or without any RFMO in place, the issuing of a fishing licence/permit shall be subject to the acceptance by the owner and/or the master of the vessel of the scientific observer on-board, when requested by the body in charge for the implementation of the NP.

The EWG 14-02 supports the concept presented by the EC that, in addition to the legislative changes, further non-legislative measures would benefit implementation of the DCF in international waters. This could be facilitated by setting, as a reference tool, a list of all obligations relating to data collection, management and availability, stemming from international agreements. Such a list shall be kept up to date on the DCF website. As a first step, an overview of data collection and submission obligations of EU MSs under different RFMOs and RFOs should be produced by the Commission (or at its initiative). Comprehensive lists should be provided to the RCMs (RCGs). RCGs should then review the list and provide the feedback on errors, inconsistencies and deficiencies to the DG MARE before publication on the DCF website.

Conclusions:

The EWG 14-02 concludes that:

- the DCF scope should be expanded to explicitly refer to RFOs and to international waters in which EU fishing activity is taking place under Sustainable Fisheries Partnership Agreements (SFPAs);
- sampling requirements in the territorial waters of the Outermost Regions (Canary Islands, Madeira, Azores and French regions) are already covered under current DCF, as these are EU waters, which shall be included in the workplans of relevant MS;
- for SFPAs and fishing activities outside the EU waters, it should be considered to make the issuing of a fishing license subject to the acceptance by the owner and/or the master of the vessel of the scientific observer onboard, when requested by the body in charge for the implementation of the workplan;
- a list of all obligations relating to data collection, management and availability, stemming from international agreements, is required as reference for MS workplans.

3.2.5 *By-catch of non-target species (ToR 2e)*

The non-retained by-catch as defined during the EWG 13-18 has been addressed by EWG 14-02. This part of the catch is not covered by the current DCF. The flow chart that goes with the definitions as agreed during the EWG 13-18 has been refined with an additional split of discards into a commercial and a non-commercial fraction (Figure 3.2.5). This alteration was considered necessary because part of the non-commercial discards (rare fish and benthos species) may be treated as incidental by-catch. In non-commercial discards, there is a transitional area between discards and incidental by-catch, for which the level of sampling ranges from a very small subsample of the catch to sampling at haul level. Data collection of rare species may therefore require more intensive sampling within sampling schemes, resulting in higher costs.

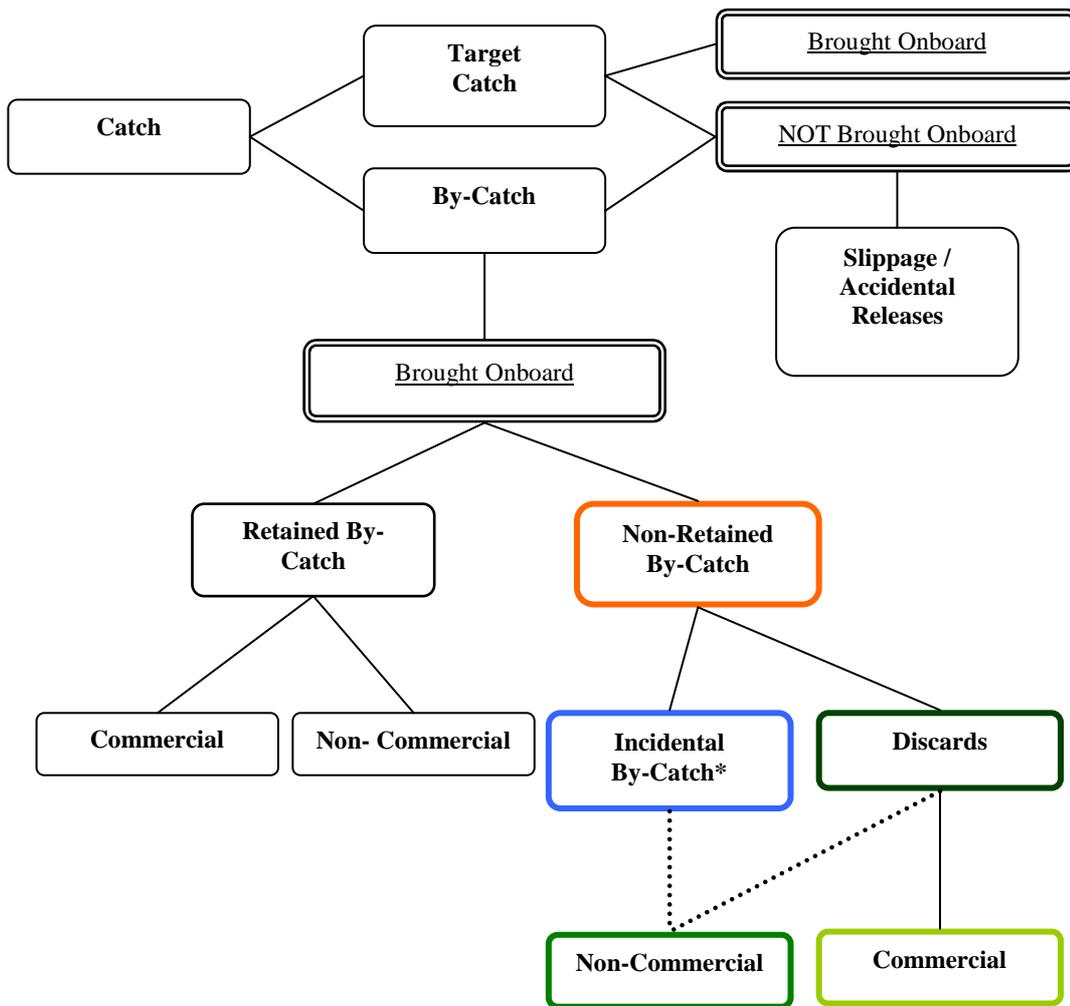


Fig. 3.2.5: Flow diagram of “the catch”

* EWG 13-18 definition: ‘incidental bycatch’ / ‘accidental bycatch’ means unintentional or fortuitous catch of non-target species that is caught during the normal fishing operation, regardless its commercial interest

The occurring issues if non-retained by-catch is to be sampled, are listed in Annex IV, where EWG 14-02 proposes solutions to the problems identified together with indications of the cost. In the table, the current DCF is taken as a starting point. Currently only commercial species in a limited number of stocks are being sampled. There is a wish to monitor all species as referred to in the list of treaties in the EWG 13-18 report.

In Article 2 of the new CFP (Reg. 1380/2013), it is stated that the CFP will, in particular, “*be coherent with the Union environmental legislation, in particular with the objective of achieving a good environmental status by 2020 as set out in Article 1(1) of Directive 2008/56/EC, as well as with other Union policies.*”

As such, the EC requests to implement the monitoring of incidental by-caught species into the new DCF (ICES 2013b). The proposed over-arching solution is that the RCGs identify adequate fisheries and/or species for sampling, based on the list of species from the (annexes of) treaties and conventions (cf. EWG 13-18 report). The costs that are involved will depend on the fisheries and species to be sampled and may vary. The costs can be limited when the sampling is combined with ongoing sampling according to the requirements for commercial species, because the effort for data processing

is relatively low due to the low number of specimens involved (the by-catch is “incidental”). On the other hand, dedicated observer sampling schemes for monitoring non retained by-catch will lead to higher costs. ICES indicates in its advice (ICES 2013b) that sampling under the current DCF can contribute to the assessment of by-catch of cetaceans and other species, but is not sufficient on its own as currently implemented by Member States. An assessment carried out by WKBYC (ICES 2013c) showed that bottom trawling is generally oversampled with respect to monitoring of protected species by-catch, while in some specific fishing areas setnets, longlines, and purse-seines are undersampled (ICES 2013b). For seabirds, priority should be given to monitoring in trammel nets and set gillnets in the Baltic, North Sea, and North Atlantic, and in set long-line fisheries in the Atlantic and Mediterranean/Black Sea (ICES 2013b). In Annex IV, specific problems are identified and more detailed guidelines are given, per type of non-retained by-catch. Headers are given in the empty annexes in the EWG 13-18 report, largely based on a table prepared by SGPIDS (ICES 2013d) and commented on by WGBYC (ICES 2014; see Table 3.2.5).

Table 3.2.5: Preliminary table from WGBYC (ICES 2014) - PETS (Protected, Endangered and Threatened Species) monitoring parameters to be stored in national databases.

Need to know	Further details
Date	
Time	
Geographical position	
Gear type level 6	
Mesh size for set nets	
Haul ID	
Check box for sampling at haul level	Inspection opening codend; scan of the catch during handling; % of coverage; level of subsampling
Species codes	See table 6.2
Number of specimens	
Pingers Yes/No	Brand; type; distance to nearest pinger; battery check

Conclusions:

The EWG 14-02 concludes that:

- the Regional Coordination Groups identify adequate fisheries and/or species for sampling, based on the list of species from the relevant treaties and conventions (cf. EWG 13-18 report).
- the revised DCF should contain provisions for by-catch data collection according to the EWG 14-02 proposals.

3.2.6 Landing obligation (ToR 2f)

STECF has currently commented on two reports of the EWGs on the landings obligation (EWG13-16 and 13-17). In addition, it has also commented on a corresponding report of the EWG 13-18 on revision of the DCF. Key points from these reports are given below:

The STECF concludes that the EWG 13-16 report represents an important step in identifying and assessing some of the key issues associated with the landing obligations and will be an important aid for those developing and assessing regional management plans. Noting that time to provide advice on the development and assessment of discard plans and regional management plans is limited (for the pelagic stocks and for salmon in the Baltic Sea, plans need to be submitted by June 2014) and many issues still need to be resolved, STECF concludes that the most important challenges to address include the following:

- Defining management units (e.g. stocks, areas, fisheries). As an example: the pelagic fisheries should apply the landing obligation from 2015 onwards, and can be approached in many different management units involving very different combinations of Member States and Advisory Councils. Discard plans could possibly be submitted for different combinations of area, species, stock, catching method, vessel type and other relevant aspects of the fishing activity.
- Dealing with third countries (e.g. Norway)
- Defining Minimum Conservation Reference Sizes (again with no clear objective, but with major implications for the marketing of the catch and the economics of catching businesses)
- Develop the criteria to evaluate discard plans (Impact Assessment indicators)
- Outlining a process for developing discard plans
- The effect of exemptions and de-minims on control, enforcement and compliance levels

There was insufficient time available to fully consider potential indicators for future evaluations of the landing obligation and to assess the performance of individual regional discard plans. However, EWG 13-17 consider this is an important aspect that should be considered within regional discard plans and work should progress on this aspect and this might be best achieved through a dedicated expert group or contract.

The EWG-13-18 (DCF revision part 3) dealt with the landing obligation under ToR 2b: As laid out in the EWG 13-02 meeting report, it is unlikely that the introduction of a landing obligation will require a change in the biological variables to be collected. However, it may have a large impact on the methods to be used in the collection of the data. There most likely will be a continued need for discard estimates in data for future resource assessments. It is, however, not clear yet how these estimates will be obtained and what kind of data collection will underpin them, as the detailed implementation of the landing obligation will depend on regional discard plans (e.g. Scheveningen Group, BALTFISH). The EWG 13-02 therefore suggested that, within the revised/new DCF, there should be an obligation for MS to collect data on discards (volumes, biological variables) but the regulation should not specify the method.

In terms of their implications for revision of EU MAP, the outcome from the various expert group meetings to date has been:

- to indicate a continued need for discard data for use in resource assessment, but without identification of the kind of data collection to underpin them;
- to identify a need to develop criteria to evaluate the discard plans possibly through a dedicated expert group or contract.

From the reports outlined above, STECF does not identify the kind of data collection to underpin the use of discard data in resource assessments “*as the detailed implementation of the landing obligation*”

will depend on regional discard plans". In addition, the view that is expressed over the need to develop criteria to evaluate the discard plans is rather ambiguous as it could refer to an *ex ante* evaluation of their adequacy or the continuing monitoring of their effectiveness. EWG 14-02 believes that criteria need to be developed for both *ex ante* evaluation and the ongoing monitoring of effectiveness. Moreover, it is of the opinion that the criteria developed to monitor implementation should be an integral part of the discard plans themselves.

The need for end users to identify the data requirements that support their activities is central to the philosophy underlying revision of the DCF. As the collection of discard data for the purpose of resource evaluation and the collection of data to fulfil the criteria developed to monitor the discard plans are both intrinsically linked to the discard plans themselves, the underlying data needs should, rightly, be identified as a part of the process of developing those plans.

Perception of the industry of scientific observers vs control inspectors

The EWG 13-05 proposed different definitions for different types of observers. Different roles and obligations should be clear to the fishing industry.

New role of observer sampling? E.g collecting data on protected and non-regulated species.

Double data collection should be avoided. In terms of cost efficiency, no separate sampling programme for protected and non-regulated species should be established.

Comments on catch documentation

Confidence in catch data needs to be high to support the scientific process underpinning fisheries advice as well as for effective management of fisheries and stocks. This is particularly important in situations such as the present where there are fundamental changes in the management objectives. The landing obligation in the CFP also encompasses possible exemptions and derogations such as inter-species quota flexibility and the *de minimis* rules which further increase the requirements on the documentation of catches.

Provisions related to catch documentation and issues related to control, monitoring and enforcement have been intensively discussed in the expert working groups dealing with the landing obligation (EWGs 13-16, 13-17 and 14-01) as the ability for Member States to control, monitor and enforce the landing obligation is key to successful implementation of the new fisheries policy. EWG 13-17 recognized that the control tools described by the control regulations are based around landings-quotas and limited in allowing meaningful verification of documentation of retained and discarded catch. In addition, available data show that there is poor compliance with the current obligation to record discards in logbooks (EWG 13-16). EWG 13-17 emphasized that the regional groups need to consider the introduction of appropriate methods for on-board catch documentation and suggested a range of provisions to be considered. These include inter alia catch documentation on a haul-by-haul basis, changed applicability of the 50 kg threshold for discards in the Control Regulation (Reg. 1224/2009) and extended usage of data collected in scientific observer programmes. The EWG 13-18, dealing with the DCF revision, concluded that frameworks and evaluations to ensure the quality of DCF data need to encompass transversal data (in many cases catch data originate from the Control Regulation) as well. The EWGs dealing with the DCF revision process have further repeatedly emphasized that observer programmes with a scientific purpose need to be separated from fisheries control.

Conclusions

The EWG 14-02 concludes that:

- reliable catch data / transversal data are of utmost importance for the scientific assessment of stocks and fisheries as well as for science based management measures and evaluation of management objectives. The catch data are in most cases an integral part (together with biological data collected under the DCF) of the estimates that go into stock assessment, implying that the quality of those estimates are dependent on the quality of the catch data. A cost-efficient data collection needs to take the quality of the catch data into account and these data need to be included in the quality assurance frameworks. It is therefore important that means to get reliable catch data as well as ways to evaluate the quality of data are included in the regional discard plans under the revised Common Fisheries Policy. If catch data are poor, this may hamper, *inter alia*,
 - future evaluation on the implementation and effectiveness of the landing obligation policy
 - high quality of the assessments of fish stocks, including assessment of stock status in relation to reference points such as F_{MSY} and B_{MSY}
 - a cost efficient data collection
- the scientific needs are to be considered when the Control Regulation is revised and when measures on catch documentation are included in the regional discard plans;
- it is essential that observer programmes with a scientific purpose are kept separate from fisheries control and enforcement. The objective but also the main challenge for scientific observer programmes is to get independent and unbiased data. This will most likely not be possible if the observer's role is extended to cover estimation and monitoring of quota uptake and compliance with the discard ban as suggested by EWG 13-18. There may also be legal constraints within MS as observers may need other training and legal status.

Economic aspects of the landing obligation were (briefly) dealt with by the EWG 14-02 sub-group on economic issues (section 3.2.7).

3.2.7 Economic issues (ToR 2g)

For the EWG 14-02 subgroup on economic issues, one ToR was specified prior to the meeting: “economic issues: data collection requirements to achieve spatial disaggregation of data for bio-economic modelling; data quality (results of 'Workshop on statistical issues and thresholds', Helsinki, Dec. 2013)”. In a brainstorming procedure, the EWG14-02 assessed further issues which should be clarified in the context of economics under the future EU MAP. Topics have been elaborated with an emphasis on addressing economic issues which were featured in the background documents provided by the Commission (STECF EWG 14-02 Docs. 2 to 6).

As a general approach, EWG14-02 focused on describing general procedures for tackling issues in the future rather than giving advice to specific questions which currently were on the table.

Ultimately, the following ToRs were compiled:

- a. Clarify the general role and tasks of PGECON
- b. Address quality issues of economic data
- c. Reiterate the request for crucial studies on economic and social data
- d. Other issues

The EWG14-02 stressed the need for separation of economic data from social data. As a consequence of a historical use of the term “socio-economic”, the misleading link of both disciplines had been perpetuated. However, both types of data have to be dealt with in separate subgroups. This requires the presence of experts in the specific field of social science.

Consequently, any future legislation on data collection should address economic and social data in separate sections.

A: Clarify the general role and tasks of PGECON, B: Address quality issues of economic data

The Planning Group on Economic Issues (PGECON) was established in 2012 after the recurrent experience that Regional Coordination Meetings were not an appropriate forum to discuss economic issues which arise from practical work of the collection of economic data. Thus it had no regional focus.

PGECON has proven to be a productive forum, clarifying issues which could not properly be addressed in another way. Thus PGECON is supposed to play a prominent role also under the EU MAP regime. EWG 14-02 took into account that the characterization of PGECON as provided in EWG 13-18 (annex I, p. 57) could not be finally discussed during the meeting in 2013 and should thus be considered preliminary. Therefore, the EWG 14-02 suggests some amendment to the general terms of reference of PGECON and, moreover, a different procedure for the treatment of end users' requests.

Taking into account ToRs of previous meetings and the Commission document on regional cooperation (STECF EWG 14-02 Doc. 3), PGECON should, in general, address the following:

- Methodological issues regarding the collection of economic variables and suggest best practices, emphasizing quality assurance
- Feedback from end users regarding data/variables (introduction, deletion) and their quality
- Harmonisation of approaches related to the economic modules of the DCF at European level (fleet economic data, aquaculture, processing sector)
- Identify tasks that need a regional coordination and propose appropriate ToRs for RCGs
- Propose studies and workshops needed to improve coordination and solve methodological issues of data collection
- Identify changes required to the EU Multiannual Programme regarding economic data to be collected.

PGECON should give advice and methodological support to MS and the Commission regarding economic data collection. PGECON participants should provide expertise in the field of economic data collection.

The EWG 14-02 suggests that any end users' request for data should be addressed to the Commission using the seven-step process proposed by EWG 13-02. The request should then be forwarded to an advisory body (e.g. STECF) to be analysed for relevance, type and priority. If the request refers to the collection or quality of economic data, it will be forwarded to PGECON. PGECON will report to STECF on the feasibility and implication of provision of the data requested and resources required (Fig. 3.2.7).

Thus far, PGECON will refer to economic issues EU-wide or regional, when applicable. In addition, issues concerning the link between economic and biological data should be discussed by groups with biologists, economists and those responsible for the collection of transversal data. In this case, specific workshops under the DCF might be organized on the pan European or regional level (RCGs), if relevant.

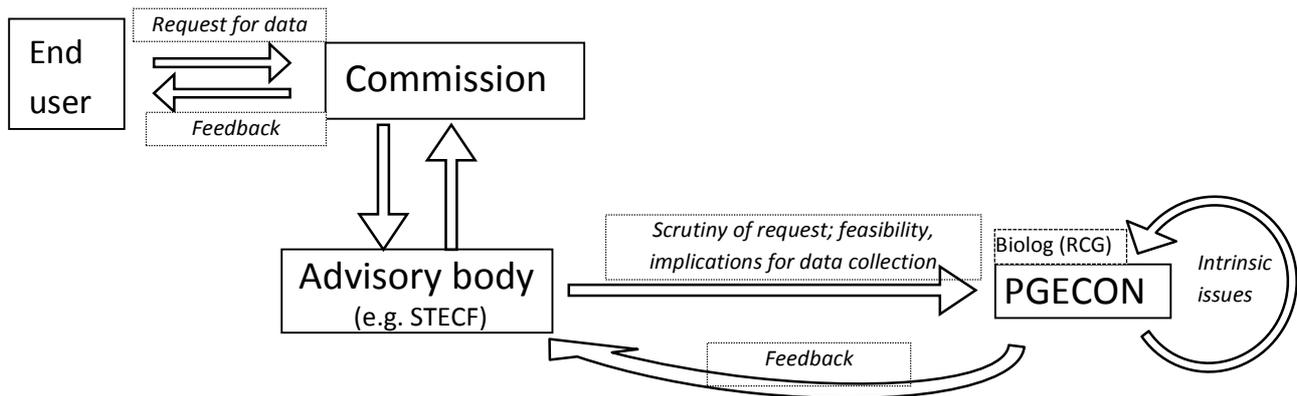


Fig. 3.2.7. Suggested architecture of PGECON in relation to end users and Commission

Issues raised in the background document “bio-economic modelling” (STECF EWG 14-02 Doc. 6) and a Commission request for considering the development of indicators for evaluating the impact of the landing obligation can be regarded as examples of end-user requests on data and should be addressed using the procedure described above.

C: Reiterate the request for crucial studies on economic and social data

The EWG 14-02 would like to reiterate the request for studies which might have a strong impact on future data collection. These are

- Pilot study on social indicators - see EWG 12-15, p.20:
Recommendation 5
Addressed to EU Commission for drafting new DCMAP (TOR B.5)
Concerning the integration of new, in particular social variables, EWG 12-15 recommends, that as a first step, after possible indicators have been listed in the study “Identification of social indicators in fisheries”, possible end-users and applications have to be clearly defined. Then a pilot study on the feasibility and constraints of collecting such data may be conducted, having in mind that very likely applications are on a regional level.
See also EWG 13-05, p.15 (7.1):
before social data are included in the new DCMAP a pilot study should be conducted how data should be collected, which data are available through common sources and what are the applications/end users and requirements. However the Commission should ask social scientists to conduct such pilot studies.
- Study on collection of raw material as link between fishing fleets, aquaculture, and fish processing – see e.g. EWG 13-05, p. 17, PGECON 2013, Liaison Meeting 2013:
STECF has suggested several times a study on the costs and feasibility of data collection of volume of raw material to be able to assess the link between the fishing fleet and the processing sector. Such a study is still not done. EWG 13-05 again strongly suggests doing such a study as soon as possible. To get decent information some MS should get the possibility to do a national pilot study and the EWG 13-05 recommends that such a study should be financially eligible under the EMFF.

The study should include processing companies even if fish processing is not their main activity.

It is highly recommended to have the results of both studies available before the finalization of EU MAP legislation.

D: Other issues

Indicators for evaluating the impact of the landing obligation

The EWG 14-02 shortly discussed the proposed variables, which seemed more informal, for the evaluation of influence of the discard ban on the economic performance of the fleets. The list of proposed variables seems almost fully covered by the current DCF. The only difference is: quota leasing price by specie and quota uptake, swaps and maximum days at sea. The EWG 14-02 states that the fishery management authorities are defining the quota distribution system on the MS level and quota uptake should be available through the administrative sources (control). On the other hand, the quota leasing price is somehow covered by variables 'Value of quota and other fishing rights' and 'Lease payments for quota and other fishing rights'. It is not clear if data currently collected on value and costs of fishing rights might be sufficient for the mentioned purposes. Further disaggregation of these variables by specie should be investigated in terms of costs and benefits of additional data collection.

Data collection requirements to achieve spatial disaggregation of data for bio-economic modelling

In the context of bio-economic modeling, JRC experts had considered further disaggregation of DCF fleet economic data to e.g. métier. As disaggregation of annual economic data is required by several tasks (long-term management plans, regional analyses, bio-economic modelling etc.), it had been previously addressed more generally during several workshops. As a consequence, the “Study to disaggregate economic variables by activity and area” had been suggested by PGECON in 2013 and supported by the 2013 Liaison Meeting.

From the perspective of feasibility and usefulness, JRC experts had considered the collection of crew size and fuel consumption on a trip basis. JRC experts stated that these data would be relatively easy to be collected and provided. Crew size had to be already reported by default when leaving a port. This information could be helpful for some disaggregation tasks.

The EWG 14-02 states that both feasibility and cost-efficiency of that kind of extension of data collection are questionable. Moreover, the EWG concludes that prior to the introduction of additional data collection requirements, it should be investigated whether the required information could be either estimated based upon information which is already available (e.g. transversal data) or achieved through a one-time study (maybe testing also an engineering approach) rather than through periodical collection from the fleet.

It should be considered whether some of these data or the frequency of collection could be different from region to region leading to a less specific core data collection program with additional data collection or studies at a more regional level. Before this is done, it would make sense to investigate which fleet segments really need to be further evaluated. Data on homogeneous segments might be disaggregated directly.

Concerning the quality of economic data, it is suggested to analyse to what extent the data provided so far will allow further analyses, e.g. formulation and evaluation of management plans. The analysis of quality levels and requirements as well as methodological support for the determination and potential improvement of quality have been assigned as tasks to PGECON.

Clarification on data collection for aquaculture and processing industry

For some issues concerning aquaculture and fish processing, the need for clarification was expressed during the meeting. Thus, EWG 14-02 compiled relevant excerpts from previous reports and added some text to overcome ambiguities. The text is provided in Annex V.

Social and economic data for eel and salmon (fisheries)

see section 3.2.2.4

Conclusions

The EWG 14-02 concludes that:

- the general role and tasks of the Planning Group on Economic Issues (PGECON) should be modified according to the suggestions of the EWG 14-02;
- any end users' requests for data should be addressed to the Commission, then be forwarded to an advisory body (e.g. STECF) to be analysed for relevance, type and priority, and - if the request refers to the collection or quality of economic data - be forwarded to PGECON;
- the previously recommended studies on social indicators and on collection of raw material as link between fishing fleets, aquaculture, and fish processing should be conducted as soon as possible in order to have the results of both studies available before the finalization of EU MAP legislation;
- with regard to data needs for bio-economic modelling, prior to the introduction of additional data collection requirements, it should be investigated whether the required information could be either estimated based upon information which is already available (e.g. transversal data) or achieved through a one-time study.

3.2.8 Regional coordination (ToR 2h)

The EWG14-02 discussed regional cooperation on the basis of the background document compiled by the Commission (Regional cooperation – state of play and proposed changes, DG MARE, 21 February 2014; STECF EWG 14-02 Doc. 3).

Cost-effective data collection has become a more pronounced objective of the revision of the DCF. Cost-inefficiency may arise *inter alia* i) when the regulation stipulates sampling for stocks, variables and/or with a periodicity that is not required (or foreseen not to be required) by the main end-users, ii) when data are collected in an ad-hoc way that does not allow for true evaluation of quality which in turn make it difficult to optimize data collection schemes and/or iii) when MS that share a stock resource have different ambitions in their sampling programmes (quality of regional estimates is usually what matters for end-users).

The way the Regional Coordination Groups (RCGs) are set up to operate and the support they get for their work will have an influence on all these issues, which is the reason for the reflections from EWG 14-02.

On the issue of stocks, variables and periodicity in the EU MAP

The suggestion for listing all stocks and variables, including the periodicity in which they need to be sampled in EU MAP, may be too descriptive and may result in data being collected that are not used.

Lists of biological variables further tend to be outdated fairly quickly as new assessment methods are developed, new management plans come into force and new resources becomes exploited. There needs to be a procedure for updating the sampling requirements if stocks, variables and periodicity are listed in the EU MAP. Another solution could be to include provisions listing the types of stocks for which it is mandatory to collect data from. Such types of stocks could, for example, be TAC stocks, stocks for which there are management plans or stocks included in a Memorandum of Understanding (MoU) between the Commission and advisory bodies. The variables (including periodicity) to be collected depend on assessment methods (which can be stock specific) and a cost-effective data collection therefore requires an effective end-user consultation process. To avoid complexity and rigidity within EU MAP itself, one solution could be to only include core variables in the EU MAP and leave the other ones to the end-user consultation process in the RCGs. Another solution could be to keep variables in the EU MAP, unless the RCG agrees on changes of sampling requirements after the end-user consultation process. In this case, the RCG decisions would override the EU MAP.

On rules for task allocation processes in the EU MAP

The EWG 14-02 agrees that it is advisable to establish rules for task sharing in the EU MAP. The rules should ideally create incentives for MS to participate in regional sampling plans. Since there is no experience with allocation of elements of a regional sampling plan to MS, it is difficult to establish specific rules at this point. One approach could be to give the RCGs a broad mandate to design regional plans, including allocation of tasks and sampling requirements by MS, but also to include a strict fall back option (e.g. share of quotas) in the EU MAP in the case where MS cannot agree on the sharing of tasks. Obligation for MS to upload data into the regional database is a prerequisite for future regional plans and need to be included in the rules. The EWG 14-02 updated the suggestion for a "future system to plan sampling" in the background document on regional coordination (STECF EWG 14-02 Doc. 3) in accordance with those suggestions (see text box below). The plan may also need to include identification (after end-user consultations) of variables to be collected and with which periodicity if this is not fully specified in the EU MAP.

Future system to plan sampling

1. All stocks/fisheries in a region (sea basins) listed in the EU MAP need to be sampled by that region.
2. To facilitate task sharing, MS shall be obliged to populate the appropriate regional database with relevant transversal data (landings, effort and value), catch and biological data.
3. Regional Co-ordination Groups (RCGs) determine the allocation of sampling responsibilities within regions based upon the evaluation of data within the regional database, or other relevant criteria.
4. Allocation of sampling effort will be based on regional sampling designs.
5. The allocation of sampling effort implicitly involves MS sharing tasks at the sampling level. Additional tasks when processing samples, for example age determination for particular species shall also be shared on the basis of a *quid pro quo* or financial compensation by other MS.
6. This additional task allocation is to be arranged between MS within the regional coordination process. Where no agreement is reached, the obligations to individual MS shall be based on the MS' share of EU catches for that stock.
7. The outcomes of the allocation process in points 4 and 5 and any mutually agreed task sharing affecting the original allocation are reflected in a table/database prepared by the RCG and published on the DCF website.
8. MS will have to report annually on the tasks achieved compared to their task allocations.

On the support through IT systems

A successful implementation of a regional approach to data collection will be heavily dependent on the supporting IT systems. It is important to realize that end-users of fisheries data usually work with estimates that originate from combinations of different types of data (e.g. age data from biological sampling programmes are used to disaggregate landings from control data into cohorts) not simple aggregations of detailed data. It is usually this processing of data that put national institutes under stress to meet requirements from data calls not the data transmission in itself. Interoperability in a strict sense is thereby only a part of the solution to make data more easily accessible. What is urgently needed for a successful implementation of a regional approach is the development of quality assured standardised tools and algorithms to support data processing and reporting in the context of regional sampling plans based on statistically sound sampling. Regional sampling plans may also imply that means for more effective communications need to be developed.

Questions raised by the Commission

The EWG 14-02 provides the following answers to outstanding questions raised by the Commission in the background document on regional cooperation (STECF EWG 14-02 Doc. 3):

Will the change to stock-based sampling be appropriate for all regions?

The text and question suggests that we are moving from a system where sampling targets are based on métiers to a system where sampling targets will be based on stocks. This may be a slightly simplistic view. The main change that has been suggested from the EWGs dealing with the DCF revision is to move from ad-hoc sampling to probability (statistically sound) based sampling. Sampling targets can be identified for stocks, groups of vessels or groups of ports depending on what is most efficient to meet the objectives of the end-users given the logistics in the region. That is why it might be most efficient to give a mandate to the RCGs to decide on the sampling strategy with a fall back option in the EU MAP in the case where MS cannot agree and/or in absence of end-user consultations.

In light of this change to stock-based sampling, will we still need a list of métiers in EU MAP (appendix IV) or can RCG decide on these and maintain them and publish them on DCF website?

It should be a task for the RCGs to maintain a list of métiers in the region. This is an essential reference list for the RDB as well.

Who deals with transversal data quality assessment?

This must be the responsibility of those that collect these data. In case of data collected under the Control Regulation (Reg. 1224/2009), it will be the competent authorities. Best practices need to be developed for how this quality assessment should be performed.

On end-user involvement

There are four key aspects of the data collection process in which end users of DCF data should be involved (see also Fig. 3.2.8):

- 1) end user input (advice) in determining what should or should no longer be collected (after careful consideration of the data that are available)
- 2) end user involvement in designing the sampling programme for data collection for those data they will use

- 3) end user access to DCF data
- 4) end user feedback on the data they have accessed (both to RCGs to improve sampling design and to Commission for compliance purposes)

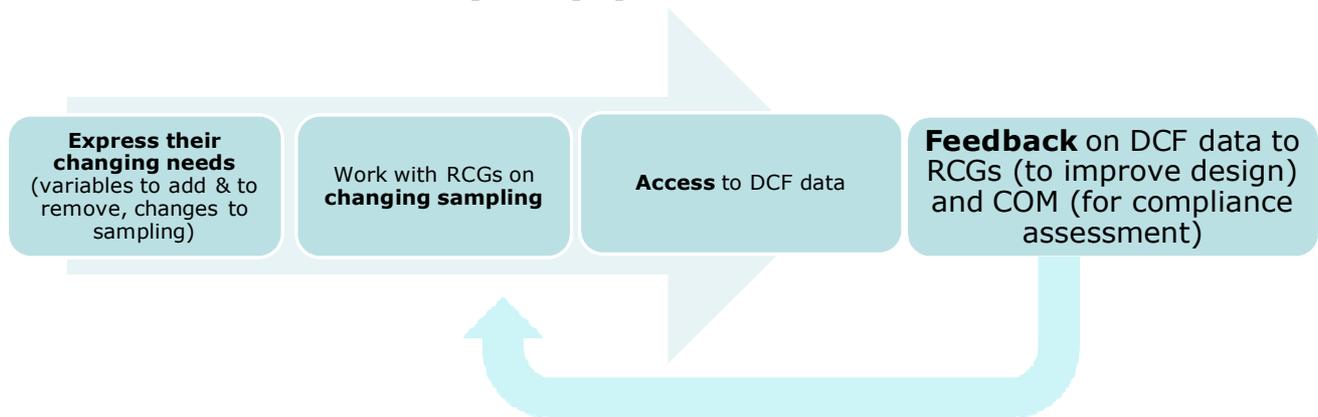


Figure 3.2.8: Different roles of end users in the DCF

One of the key changes to the DCF that all stakeholders agree on is that it should more adequately reflect end user needs and be more flexible to address changes in end user needs. As a basic principle, end users should provide input to the EU MAP regarding their needs, and that the most important of these new needs should be taken on board by MS, but it is also acknowledged that this will have impacts on the sampling plans in MS, cost implications for MS, and will require some time before the end user requests can result in new data collection. There is a valid concern by all MS that giving more say to end users on their needs could result in a ratchet effect whereby end users request ever more data. Realistically, it is likely that end user input will indeed more often concern additions of new variables, as assessment models improve for example, rather than removal of variables. A clear process is required to determine who and how the various requests by end users will be made, filtered and prioritized to end up with a final agreed list of new variables to be collected, and then injected into the sampling process to produce new sampling plans covering these new needs.

Different options could be considered:

In all the proposals below, end users should be required to provide their requests for changes to the framework, in a structured format though a central forum (as described in the EWG 13-02 report) established by the Commission following the seven criteria as developed and described in detail by STECF (EWG 13-02): 1) need and relevance, 2) impacts, 3) feasibility, 4) methods, 5) costs, 6) data quality and 7) data use.

- 1) The filtering occurs at the level of definition of 'key end users' who are permitted to provide requests for new needs (or to identify disappearing needs). This involves a selection of the key end users, either by actual organization (e.g. ICES, GFCM, RFMOs, the Commission etc.) or by role of the organization (e.g. any organization that is tasked with providing advice to the Commission relating to fisheries management or stock assessment). If an end user meets this definition of key end user, then it can provide its requests to RCGs/PGECON for modification of variables to be collected. This could also take place in different ways, either by key end users being observer in RCG/PGECON meetings, or by them being 'authorized' or mandated to provide their requests for changes to data collection obligations for RCGs/PGECON to consider. Practically, it would probably be useful to determine a process and frequency whereby end users can provide their requests for changes to RCGs (e.g. maximum once a year) to ensure this process is manageable and RCGs can plan their work according to a set planning and make changes to their sampling programmes only once per year at most. A potential

disadvantage is that key end users could just be given a blank cheque and request anything and RCGs have to accept this.

- 2) All end users can provide input to RCGs about their changing needs but this is filtered at a later stage. Disadvantage: If no distinction is made between different types of end users, then how do we identify which end users participate in RCGs? This approach is not compatible with end users being members of RCGs, i.e. it only works if end users are not members of RCGs, but instead provide input for MS to discuss within RCGs. Advantage: This procedure does not exclude any end users from the start. With this approach, a filtering/prioritizing process needs to be set up. End users should also provide their requests (in standardized format, with an indication of prioritisation of the request items) by a certain deadline in the year. In this way, the filtering process/meeting/exercise can be carried out and also RCGs can plan a dedicated meeting/their work plan to consider all requests at one point and if agreed, amend their regional and national workplans for the following year.

The manner in which end users provide their required changes could be through a meeting (e.g. annual) or by giving them a deadline to provide requests (annual).

The advantage of a meeting is that end users hear requests of other end users in order to ensure a) they don't contradict or overlap each other, and b) they are aware that their needs are not the only ones and prioritization needs to take place.

Step 1 of the process: End users provide input on new variables needed, variables no longer needed & required changes to sampling design. They should do this using a standard format covering the 7 criteria identified by STECF: (1) need and relevance, 2) impacts, 3) feasibility, 4) methods, 5) costs, 6) data quality and 7) data use.). End user input should be provided to the Commission by a set deadline, e.g. towards the beginning of the year. It should be clear who represents end users (e.g. ACOM, SCICOM for ICES).

Step 2: The filtering/prioritizing process should be external and independent.

Conclusions

The EWG 14-02 concludes that:

- core variables should be defined in the EU MAP, while additional variables should be left to the end-user consultation process on regional level. Unless a Regional Coordination Group (RCG) agrees on changes, these variables should be left on the EU level. In the case of RCG decisions on changes, these would override the EU MAP. Efficient regional coordination requires clear rules for task-sharing in the DCF;
- apart from IT support (databases) for regional coordination, quality-assured standardised tools and algorithms to support data processing and reporting in the context of regional sampling plans based on statistically sound sampling should be developed;
- in addition to previous recommendations by STECF with regard to end-user involvement in the regional data collection process, the removal of data requirements after end-user consultation has to be considered using the same criteria as the addition of data requirements.

4 "Empty annexes" for the future EU MAP, outlining categories of data to be collected under the future EU Multiannual Programme (ToR 3)

The EWG 13-05 has provided detailed suggestions for the annexes of the EU MAP, which are generally still valid in the view of EWG 14-02, but were not reviewed in detail by the EWG 14-02 due to time constraints.

With regard to Appendix III of Annex 1 in the EWG 13-05 report ("List of raw data on fisheries dependent information that shall be made available for DCF purpose"), the EWG 14-02 agreed that the types of data should be listed, but not the sources of these data (e.g. current Control Regulations), as these will change over time. Accordingly, the title of this appendix should be changed into: "List of data on fisheries dependent information". This modification is justified by the need to harmonize this appendix with the already agreed approach that allows the implementation of additional collection of the data concerned if the quality of the landing/catch statistics recorded under other regulations does not meet the requirements for the use in the EU MAP, provided that a justification is given by the MS (STECF Plenary 13-01 report, page 25).

The end-user core data needs in Appendix IV of Annex 1 in the EWG 13-05 report are to be reviewed and updated by the relevant end-user(s) in accordance with their latest framework(s) and requirements.

4.1 By-catches

EWG 13-18 proposed a table that gives the headers for the data required for the monitoring of protected, endangered or threatened species.

The EWG 14-02 recommends using these headers as part of the "empty annexes".

The table has been completed further with a column "% of the fishery operation sampled" (Table 4.1). In order to be able for the end-user to have information on the "zero by-catches", it needs to be clear if the catch has been scanned and/or sampled on haul level. E.g. to check when the cod-end is opened or scan (and/or sample) for incidental by-catch during hauling of set-nets.

Description of the headers - Practical issues which should be taken in account

Vessel ID/Date/time/haul ID/% fishery operation sampled

While incidental by-catch and discards may be technically the same, the sampling approach is very different. Discards, consists by definition of large volume bulk of small specimens, comparable to the target catch. This part of the catch can be sampled by taking a small subsample (basket). For incidental by-catch this is not possible: it needs to be recorded at the haul level. This means inspection of the opening of the codend; or a scan of the catch during handling. As hauls are concurrently sampled for discards and retained catch, it is important that the sampling protocols contain a checkbox whether the haul was actually checked for incidental by-catches and – in case of a scan during hauling - an indicator of the percentage coverage. This enables the output of hauls or sets with zero by-catches.

Geographical position

In general this should be expressed in latitude/longitude (degrees and minutes). If the exact location is not known or available, the approximate location should be fit to the geographical area/grid in use by ICES, GCFM, et al. (rectangle, subdivision, division, geographical subarea).

Gear

With reference to EU Reg. 850/98 and its amendments.

Mesh size

The mesh size of gill- and trammel nets is of interest as it influences the likeliness of entanglement.

Species

If it is not possible to identify the level of identification to species, it should be recorded on a higher taxonomic level (group of species, genus -, family – or order level). This is in particular important for the recording of seabirds which includes a large number of possible species for a lot of areas. Protocols should include a list of rare species that should be recorded during trips. These species should have a code in the institute database and code lists should be available to the person who enters the data in the database. It has been recognized that most countries do not have codes for a lot of protected, endangered and threatened species, which causes data not to be stored in national databases (ICES 2012a, ICES 2013). Species lists and entry codes are provided by the AFIS List of Species for Fisheries Statistics Purposes <http://www.fao.org/fishery/collection/asfis/en>.

Number of specimens

Number of specimens by species.

Indicator of decomposition, dead or alive

Rare species are often considered to have been dead prior to the time they were by-caught. This seems to happen often in sampling on board beam trawlers where observers assume that it is impossible to catch a large, fast swimming animal, like a harbour porpoise, because of the low vertical opening of the trawl.

Reference with stages as a reference to be added. Training needs to be provided.

Mitigation type

Sampling should contain information on any mitigation measures applied. Currently so called Acoustic Deterrent Devices are obligatory in some fisheries under EU Reg. 812/2004. Brand, type and indicators of adequate use should be collected as well. Other mitigation measures (i.e. for turtles, bird) may become in use in the future.

Table 4.1. Data required for the monitoring of protected, endangered or threatened (PETS) species

vessel ID	gear	mesh size	date	time	haul ID	% fishery operation sampled	geographical position	species	no of specimens	indicator of decomposition	mitigation type
(a) In general this should be expressed in latitude/longitude (degrees and minutes). If the exact location is not known or available, the approximate location should be fit to the geographical area/grit in use by ICES, GCFM, et al (rectangle, subdivision, division, geographical subarea).											
(b) a table with identified stages will be available Mitigation - pinger											
(c) In order to be able to provide "zero-by-catches", it needs to be clear if the catch have been scanned on haul-level: e.g. check when the codend is opened or scan for incidental by-catch during hauling of set nets.											
Mitigation type (if Acoustic Deterrent Device)											
brand	type	check box battery	distance to nearest pinger								
Mitigation - TED											
....										
Mitigation - Circle hooks											
brand	type	size									
Mitigation -											
.....									

5 Any other business

5.1 Stomach sampling and analysis

The EWG 14-02 was requested by DG MARE to look further into the possibility of stomach sampling and analysis as a new source of data collection.

One of the main objectives as formulated in Article 2 of the CFP Basic Regulation (EU) No 1380/2013 is:

“The CFP shall implement the ecosystem-based approach to fisheries management so as to ensure that negative impacts of fishing activities on the marine ecosystem are minimised, and shall endeavour to ensure that aquaculture and fisheries activities avoid the degradation of the marine environment.”

In Article 2, there is also the requirement that the CFP shall in particular, *“be coherent with the Union environmental legislation, in particular with the objective of achieving a good environmental status by 2020 as set out in Article 1(1) of Directive 2008/56/EC, as well as with other Union policies.”*

Based on the above, this implicates the requirement to address the linkages between different species in the ecosystem.

Species and fisheries interact in numerous ways in the ecosystem: one of the most basic interactive processes is that of predators feeding on their prey. In the European context, addressing the effect of predator-prey interactions is at the core of multispecies management advice (ICES 2012b). This entails a move from single species to multispecies advice as the management of one component of the ecosystem will depend on that of other components.

In EWG 12-15, it was noted that initiatives for combined surveys addressing both commercial fish stocks and ecosystem aspects should be encouraged. During the EWG13-02, the necessity and feasibility of additional new parameters proposed to be monitored in surveys i.e. stomach content (ICES) for food web analysis and population dynamics, was referred to, but not studied further.

Therefore, it may be required to include conditions for stomach data collection and analysis in the new DCF and to investigate the possibility of (low-level) stomach sampling programmes on a regular basis on the research vessel surveys.

Multispecies modelling, however, is still under development and the application of the multispecies management needs more study and scientific research. The outcome of projects such as the EU project “Study on stomach content of fish to support the assessment of good environmental status of marine food webs and the prediction of MSY after stock restoration” (ongoing until November 2014) can be used to investigate the inclusion in the future of stomach analysis in the DCF. The aim of this EU project is to improve the data basis for multi species and ecosystem models. Stomach data will be used to determine the current status of the North Sea and Baltic food web.

In order to consider the introduction of stomach data collection into the new DCF, the EWG 14-02 concludes that a pilot study should be conducted to investigate and to develop a cost-effective and end-user driven multi-annual plan for the collection and analysis of stomach data. Data requests for stomach analysis (species, number of specimens etc.), sampling design and regional approach, should be also agreed at the level of RCGs.

The results from the EU project “Study on stomach content of fish to support the assessment of good environmental status of marine food webs and the prediction of MSY after stock restoration” can be used as a starting point to develop this pilot study. The EWG 14-02 recommends the whole flow, from survey design, stomach collection until data delivery to the end –user to be included in the pilot study.

A (non-restrictive) list of aspects that could be part of such a pilot study, is given below and will depend on the initial survey design, temporal and spatial aspects:

- Preparatory work before surveys
- Spatial distribution?
- The need to collect on an annual basis, triennial, five-annual?
- Regional coordination for collecting samples
- Regional coordination for analysing of samples
- Material to collect samples
- Additional manpower to join on surveys
- Extra days at sea depending on the original survey design
- Selection of key species of which to collect the stomachs
- Number of stomachs to be collected?
- Extra manpower in lab (full time): preparation of samples, analysis of samples, determination stomach content
- Staff training
- Quality check of data
- Entering data in database
-

Conclusions

The EWG 14-02 concludes that:

- a pilot study should be conducted to investigate and to develop a cost-effective and end-user driven multi-annual plan for the collection and analysis of stomach data for consideration in the revised DCF/EU MAP.

6 Agenda and timetable of EWG 14-02

STECF EWG 14-02: DCF revision – Part 4

Hamburg, 24-28 Feb 2014

Agenda (version 5, 27/02/2014)

- Welcome and short introduction of participants
- Adoption of agenda and timetable
- Developments since EWG 13-18 (Revision of the DCF part 3, Brussels, 25-28 Nov 2013)
Presentation by Amelie Knapp, DG MARE
- Terms of Reference
Presentation of Terms of Reference and key documents by Amelie Knapp, DG MARE
Synthesis of 'burning issues' provided by invited experts

- **ToR 1. Architecture of the DCF**

Identify which information/provisions/specifications regarding data to be collected and methodologies should remain in/be removed from the DCF Regulation, which could be removed from the current EU Multiannual Programme and which devolved to either RCG or to MS. Based on a proposal by the Commission – see relevant section on tasks of RCGs in document on regional coordination that will be sent in advance of meeting. Consider also which activities are annual versus multiannual and how this affects what should be presented in the EMFF Operational Programme vs the national workplan.

Background document:

- Architecture of the DCF and EU MAP – state of play and proposed changes (DG MARE, 21 February 2014) (EWG14-02 – Doc 2)

- **ToR 2. Revision of the EU MAP**

- a. **Recreational fisheries** (based on a proposed way forward by the Commission – document to be provided by COM in advance of meeting)
- b. **Eel & salmon:** Based on the ICES WKESDCF outcome and recommendations and other relevant information (e.g. ICES Feedback June 2013, STECF EWG 12-15), define sampling requirements (variables, stocks, areas, temporal intervals etc.) for the EU MAP
Presentation by Chairs of WKESDCF (Ted Potter / Alan Walker)
- c. **Data collection in the Mediterranean & Black Sea:** Review the Data Collection Reference Framework proposed by GFCM and comment how the framework, variable definitions and data collection requirements fit into the revised DCF and EU MAP
Presentation by Paolo Carpentieri
- d. **International dimension** of the DCF (based on a proposed way forward by the Commission – document to be provided by COM in advance of meeting), and DCF in Overseas Territories
- e. **By-catch of non-target species:** Elaborate on work done by EWG 13-18 and focus in particular on evaluation of costs of two proposed approaches (for incidental catches and for by-catch of bulk 'species')
- f. **Landing obligation:** Review EWG 13-16 and 13-17 work and implications for revision of EU MAP

- g. **Economic issues:** Evaluate the data collection requirements to achieve spatial disaggregation of data for bio-economic modeling. Consider results of 'Workshop on statistical issues and thresholds' (Helsinki, Dec. 2013) with regard to quality of economic data.

Presentation by Arina Motova on bio-economic modeling

Presentation by Jarno Virtanen on Helsinki workshop

- h. **Regional coordination:** review of detailed proposal by the Commission – will be forwarded in advance of meeting.

Background documents:

- Architecture of the DCF and EU MAP – state of play and proposed changes (DG MARE, 21 February 2014). **EWG14-02 – Doc 2.**
- Regional cooperation – state of play and proposed changes (DG MARE, 21 February 2014). **EWG14-02 – Doc 3.**
- Recreational fisheries – state of play and proposed changes (DG MARE, 21 February 2014). **EWG14-02 – Doc 4.**
- Data collection in international waters – state of play and proposed changes (DG MARE, 21 February 2014). **EWG14-02 – Doc 5.**
- Bio-economic modeling (DG MARE, 21 February 2014). **EWG14-02 – Doc 6.**
- STECF EWG 12-15 Review of proposed DCF 2014-2020 Part 2 (Brussels, 1-5 Oct 2012). **EWG14-02 – Doc 7.**
- STECF EWG 13-02 Review of DC-MAP – part 1 (Ispra, 11-15 March 2013). **EWG14-02 – Doc 8.**
- STECF EWG 13-05 Review of DC-MAP – part 2 (Varese, 10-14 June 2013). **EWG14-02 – Doc 9.**
- STECF EWG 13-18 Revision of the DCF [3] (Brussels, 25-28 Nov 2013). **EWG14-02 – Doc 10.**
- ICES Feedback on data needs in the new DC-MAP (June 5th, 2013). **EWG14-02 – Doc 11.**
- ICES Working Group on Recreational Fisheries Surveys (WGRFS) reports 2012 and 2013. **EWG14-02 – Doc 12.**
- ICES Workshop on Eel and Salmon DCF Data (WKESDCF) report (Copenhagen, 3-6 July 2012). **EWG14-02 – Doc 13.**
- Proposal for the GFCM Data Collection Reference Framework (Feb. 2014). **EWG14-02 – Doc 14.**
- GFCM feedback on the DCF (Oct. 2013). **EWG14-02 – Doc 15.**
- STECF EWG 13-16 Landing Obligation in EU Fisheries - part 1 (Varese, 9-13 Sep 2013). **EWG14-02 – Doc 16.**
- STECF EWG 13-17 Landing Obligation in EU Fisheries - part 2 (Dublin, 26-28 Nov 2013). **EWG14-02 – Doc 17.**
- PGECON reports 2012 and 2013. **EWG14-02 – Doc 18 and 19.**
- JRC report on 'Bioeconomic Modelling Applied to Fisheries with R/FLR/FLBEIA'. **EWG14-02 – Doc 20.**

- **ToR 3. Annexes of the EU MAP**

Based on the proposals of EWG 13-05 and other relevant information, develop an outline of the annexes to be included in the EU MAP.

Background documents:

- STECF EWG 13-05 Review of DC-MAP – part 2 (Varese, 10-14 June 2013). **EWG14-02 – Doc 9.**

- **Any other business**

Sub-groups:

Sub-group 1 – Eel & salmon [*Ted, Alan, Tomasz, Håkan, Frans, Manos, Cristina M. (obs.), Ciara (obs.)*]

Sub-group 2 – Recreational fisheries [*Sieto*], **Landing obligation** [*Jørgen, Katja, Phil, Paolo*], **By-catch of non-target species** [*Bram, Els, Leyla*], **International dimension** [*Pablo, Irek, Christian, Cristina R.*]

Sub-group 3 – Economic issues (ToR proposal in 'burning issues' document), landing obligation (indicators), eel & salmon economics [*Jörg, Evelina, Fabienne, Michael, Leyre, Jordi, Jarno, Arina*]

All sub-groups/Plenary to deal with: ToR 1 & 3, ToR 2c, 2h

Timetable

Monday	14:00 - 18:00	Welcome and presentation of participants
		Adoption of agenda and timetable
		Developments since EWG 13-18
		Terms of Reference
Tuesday	09:00 – 13:00	Presentations on ToR 2b, 2c and 2g; Forming of sub-groups and sub-group work
	14:00 – 18:00	Sub-group work
Wednesday	09:00 – 13:00	Sub-group work
	14:00 – 16:00	14:30 Plenary (Architecture, Regional Coord.); Sub-group work
	16:30 – 18:00	Discussion of eel & salmon sub-group report
Thursday	09:00 – 13:00	Continuation of sub-groups; 11:30 Discussion of sub-group reports
	14:00 – 18:00	Discussion of sub-group reports
Friday	09:00 – 13:00	Draft report
	13:00	Closure of meeting

Coffee breaks: 11:00 and 16:00

Lunch breaks: 13:00 – 14:00

7 List of abbreviations

CFP	Common Fisheries Policy
DCF	Data Collection Framework
DC-MAP	Multi-annual Programme for Data Collection (now EU MAP)
DCRF	GFCM Data Collection Reference Framework
EMFF	European Maritime and Fisheries Fund
EMP	Eel Management Plan
EMU	Eel Management Unit
EP	European Parliament
EU MAP	EU Multi-annual Programme (formerly referred to as DC-MAP)
EWG	Expert Working Group
FAD	Fishing Aggregation Device
GFCM	General Fisheries Commission for the Mediterranean
ICES	International Council for the Exploration of the Sea
JRC	Joint Research Centre (Ispra, Italy)
LTMP	Long-term Management Plan
MoU	Memorandum of Understanding
MS	Member State
MSFD	Marine Strategy Framework Directive
NASCO	North Atlantic Salmon Conservation Organization
NP	National Programme
PGECON	Planning Group on Economic Issues
RCG	Regional Co-ordination Group
RCM	Regional Co-ordination Meeting
RFO	Regional Fisheries Organisation
RFMO	Regional Fisheries Management Organisation
SFPA	Sustainable Fisheries Partnership Agreements
STECF	Scientific, Technical and Economic Committee for Fisheries
WFD	Water Framework Directive

8 References

ICES 2012a. Report of the Workshop on Eel and Salmon DCF Data (WKESDCF), 3 – 6 July 2012, ICES HQ, Copenhagen, Denmark. ICES CM / ACOM:62. 67 pp.

ICES 2012b. Report of the Working Group on Multispecies Assessment Methods (WGSAM), 22–26 October 2012, Venice, Italy. ICES CM 2012/SSGSUE:10. 145 pp.

ICES 2013a. Report of the Working Group on North Atlantic Salmon (WGNAS), 3–12 April 2013, Copenhagen, Denmark. ICES CM 2013/ACOM:09. 380 pp.

ICES 2013b. ICES Advice on the Special Request from the EU concerning monitoring of bycatch of cetaceans and other protected species. ICES Advice April 2013, Book 1, section 1.5.1, 4 pp.

ICES 2013c. Report of the Workshop on Bycatch of Cetaceans and other Protected Species (WKBYC), 20-22 March 2013, Copenhagen, Denmark. ICES CM 2013/ACOM:36. 55 pp.

ICES 2013d. Report of the Study Group on Practical Implementation of Discard Sampling Plans (SGPIDS 3). 24 – 28 June, 2013, Lysekil, Sweden. ICES 2013 /ACOM: 56 pp.

ICES 2014. Report of the Working Group on Bycatch of Protected Species (WGBYC). ICES CM 2014/ACOM:xx. XX pp. (in press)

Annex I: Data needs for salmon

Table I.A Overview of current DCF and future data needs for Atlantic Salmon assessment/ scientific advice (Prepared by the ICES Working Group on North Atlantic Salmon, 2013, and reported in the ICES Feedback on data needs in the new EU-MAP, June 5th 2013).

Type of data	Collected under DCF	Available to WG	Reviewed and evaluated by WG	Used in current assessment models	Future plans	Notes
Fleet capacity	No **	No *	No	No	No need to be collected	See 'Fishing gear and effort'
Fuel consumption	No **	No *	No	No	No need to be collected	Many salmon fisheries use unpowered vessels
Fishing gear and effort	Partially **	Partially	Partially	Partially, but information requested by NASCO	Use for estimation of exploitation rates. Improve coverage and sampling intensity in DC-MAP	Data required for all relevant areas/fisheries
Landings	Partially **	Yes	Yes	Yes	Improve coverage in DC-MAP	Data required on: catch in numbers and weights for recreational and commercial fisheries in rivers, estuaries and coastal waters.
Discards	No **	No *	No	No	No need to be collected	Not relevant to salmon except (historically) in Faroes fishery. NB: 'catch and release' fish are deliberately caught and so not classed as discards.
Recreational fisheries	Partially **	Yes	Yes	Yes	Improve coverage in DC-MAP	Extent of DCF coverage unclear. Complete catch data needed for all recreational fisheries (see 'Landings')
Catch & Release	No **	Partially	Partially	No - but data requested by NASCO	Include collection in DC-MAP	Data on numbers of fish caught and released required for all recreational fisheries

Type of data	Collected under DCF	Available to WG	Reviewed and evaluated by WG	Used in current assessment models	Future plans	Notes
CPUE data series	Partially **	Partially	Partially	Partially	Improve sampling intensity in DC-MAP	Data used to generate national inputs to models
Age composition	Partially ** Some ageing based on fish lengths or weights	Yes	Yes	Yes	Improve coverage and sampling intensity in DC-MAP	Extent of DCF coverage unclear; sampling intensities in other fisheries inappropriate for salmon
Wild/reared origin (scale reading)	No **	Partially - from other sources	Partially	Partially used - information on farmed fish is requested by NASCO	Improve sampling intensity in DC-MAP	Extent of DCF coverage unclear
Length & weight at age	Partially **	Partially	Yes	Yes - but some ageing based on fish lengths or weights	Improve sampling coverage in DC-MAP	DCF does not cover all relevant areas/fisheries; sampling intensities inappropriate for salmon
Sex ratio	No **	Yes - from other	Partially	Yes	Modify sampling intensity in DC-MAP	Estimates required at national/regional level every 5 years
Maturity	Not known **	No *	No	No	No need to be collected – all returning adults are mature	DCF requires collection but extent of coverage unclear; data not required for assessments
Fecundity	No **	Yes	Partially	Yes	Include collection in DC-MAP	Estimates required at national/regional level every 5 years
Data processing industry	No **	No **	No	No	No need to be collected	Requirement not clear
Juvenile surveys (Electrofishing)	Partially ** - but not requested for Atlantic salmon in	Yes	Partially	Partially	Include collection in DC-MAP	Data used to develop reference points and confirm stock status. Also required for assessments under WFD
Adult census data (Counters, fish ladders, etc.)	Partially ** - but not requested for Atlantic salmon in	Yes	Partially	Yes	Include collection in DC-MAP	Counts required for ~1 river in 30. Data required to provide exploitation rates for assessments

Type of data	Collected under DCF	Available to WG	Reviewed and evaluated by WG	Used in current assessment models	Future plans	Notes
Index river data (Smolt & adult trapping; tagging programmes; etc.)	Partially **_- but not requested for Atlantic salmon in DCF	Yes	Partially	Yes	Include collection in DC-MAP	Index rivers are identified by ICES. Data used to develop reference points and inputs to assessment models
Genetic data (for mixed stock analysis)	No **	Partially	Partially - for some mixed stock	Not currently	Include collection in DC- MAP - sampling in mixed stock fisheries every 5 years	Genetic analysis is now advised to provide more reliable stock composition in mixed stock fisheries
Economic data	Not known **	No *	No	No - but data is of use to NASCO		Collection of economic data would be useful to managers
Aquaculture data	Not known **	Partially - marine farm production collected	Yes	No - but information on farm production is requested by NASCO		Currently not required for freshwater

* Not asked for by the ICES WGNAS

** Not mandatory **for some or all areas/stocks/fisheries** under the current DCF

Table I.B Overview of the data needs for Baltic salmon advice (From the ICES Feedback on data needs in the new DC-MAP, June 5th 2013).

Type of data	Collected under DCF	Available to WG	Reviewed and evaluated by WG	Used in current assessment model	Future plans	Notes
Fleet capacity	Yes	Yes	No	No	Keep as current DCF	Incompatible with current assessment model
Fuel consumption	Yes	No *	No	No	Keep as current DCF	Incompatible with current assessment model
Fishing effort	Yes	Yes	Yes	Yes	Keep as current DCF	
Landings	Yes	Yes	Yes	Yes	Keep as current DCF	
Discards	Yes	Yes	Yes	Yes	Keep as current DCF	
Recreational fisheries	Yes	Yes	Yes	Yes	Keep as current DCF	
CPUE data series	Yes	Yes	Yes	Yes	Improve sampling intensity	
Age composition	Yes	Yes	Yes	Partly used	Improve sampling intensity	Not incorporated in current assessment model, river samples used
Wild/reared origin (scale reading)	Yes	Yes	Yes	Partly used	Keep as current DCF	
Length & weight at age	Yes	Yes	Yes	No	Keep as current DCF	Not incorporated in current assessment model
Sex ratio	Yes	Yes	No	Partly used	Keep as current DCF	Not incorporated in current assessment model, river samples used. In the offshore fishery, gutted salmon and trout are sampled, i.e. no possibility to determine sex ratio.
Maturity	Yes***	No***	No	No	Keep as current DCF	No method available to discriminate between maturing and non-maturing salmon during the time of offshore fishing.
Economic data	Yes	No*	Partly used	No	Keep as current DCF	
Data processing industry	Yes	No*	No	No	Keep as current DCF	Incompatible with current assessment model
Electrofishing data	Yes**	Yes	Yes	Yes	Keep as current DCF	
Smolt trapping data	Yes**	Yes	Yes	Yes	Keep as current DCF	
Tagging data	No	Yes	Yes	Yes	Keep as current DCF	
Number of salmon/sea trout returning to rivers	Yes**	Yes	Yes	Partly used	Improve sampling intensity	

Genetic data	Yes**	Yes	Yes	No	Improve sampling intensity	Not incorporated in current assessment model. Used as independent information to evaluate model results. Data may be used in future assessment model.
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‘*’ Not asked for by the ICES WGBAST.

‘**’ Not mandatory under the current DCF.

‘***’ DCF requires collection but only a few Member States are collecting.

Annex II: Changes proposed for Reg. 199/2008 with regard to eel & salmon

Original text of Reg. 199/2008 (including proposed changes on eel and salmon in track changes)	Comment on proposed change (essential or nice to have), justification/need for change.
<p><i>Article 2</i></p> <p>Definitions</p> <p>For the purposes of this Regulation, the following definitions shall apply:</p> <p>(a) ‘fisheries sector’ means activities related to commercial fisheries, recreational fisheries, aquaculture and industries processing fisheries products;</p> <p>(b) ‘aquaculture’ means the rearing or cultivation of aquatic organisms using techniques designed to increase the production of the organisms in question beyond the natural capacity of the environment; the organisms remaining the property of a natural or legal person throughout the rearing or culture stage, up to and including harvesting;</p> <p>(c) ‘recreational fisheries’ means non-commercial fishing activities exploiting living aquatic resources;</p> <p>(d) ‘marine regions’ means the geographical areas set out in Annex I to Council Decision 2004/585/EC and the areas established by the regional fisheries management organisations, including, with respect to data collection for diadromous species, the inland waters in catchments discharging into these geographic areas;</p> <p>(e) ‘primary data’ means data associated with individual vessels, natural or legal persons or individual samples;</p> <p>(f) ‘meta data’ means data giving qualitative and quantitative information on the collected primary data;</p> <p>(g) ‘detailed data’ means data based on primary data in a form which does not allow natural persons or legal entities to be identified directly or indirectly;</p> <p>(h) ‘aggregated data’ means the output resulting from summarising the primary or detailed data for specific analytic purposes;</p> <p>(i) ‘end-users’ means bodies with a research or management interest in the scientific analysis of data in the fisheries sector;</p> <p>(j) ‘fleet-fishery based sampling’ means biological, technical and socio-economic data collection surveys based on agreed regional fishing types and fleet segments;</p> <p>(k) ‘Community fishing vessel’ means a vessel as defined in</p>	<p>Article 2(c) limits recreational fisheries to recreation and sport. This creates ambiguity as to whether there are some fisheries that are neither commercial nor recreational. We suggest that the words ‘for recreation or sport’ are deleted so that all fisheries are classified as either commercial or recreational. This has previously been proposed by STECF EWG 13-05.</p> <p>Article 2(d) provides a definition for ‘marine regions’ but it is unclear how inland waters are defined. We propose that, with respect to data collection for diadromous species, marine regions should include the inland waters in catchments that discharge into them. We understand that marine regions already include transitional waters, as concluded by STECF 13-12.</p> <p>It is unclear how Article 2(j) relates to commercial and recreational fisheries for eels and salmon</p>

<p>Article 3(d) of Regulation (EC) No 2371/2002.</p> <p>(l) ‘Diadromous species’ means all anadromous and catadromous species.</p>	<p>A definition of diadromous may be required if this is used to replace ‘eels and salmon’ (See Article 3(a)).</p>
<p><i>Article 3</i></p> <p>Community programme</p> <p>1. A multi-annual Community programme for collection, management and use of biological, technical, environmental, and socio-economic data concerning:</p> <p>(a) commercial fisheries carried out by Community fishing vessels:</p> <p>(i) within Community waters, and including commercial fisheries by all methods or vessels for diadromous species in inland waters;</p> <p>(ii) outside Community waters;</p> <p>(b) recreational fisheries carried out within Community waters including recreational fisheries for eels and salmon in inland waters;</p> <p>(c) aquaculture activities related to marine species, including eels and salmon, carried out within the Member States and the Community waters;</p> <p>(d) industries processing fisheries products;</p> <p>shall be defined in accordance with the procedure referred to in Article 27(2).</p> <p>2. The Community programme shall be drawn for three-year periods. The first period shall cover the years 2009 and 2010.</p>	<p>Article 3.1(a)(i): The definition of ‘community fishing vessels’ [See Article 2(k)] excludes most commercial fishing for eels and salmon. There is a need to collect data for all commercial and recreational fisheries for eels and salmon (with or without vessels) and regardless of whether vessels are registered</p> <p>Article 3.1(a)(i): Within the CFP (EU 1380/2013) ‘marine biological resources’ includes anadromous and catadromous species during their marine life. Article 3 therefore appears to include data collection for species such as trout and shads in marine fisheries, but not in inland waters. (NB reference is also made to trout and anadromous and catadromous species in parts of Commission Decision 2010/93/EU). These data may be of little value if data are not also collected from inland fisheries and we therefore propose that the Regulation allows for the collection of data on all diadromous species in inland waters.</p>
<p><i>Article 4</i></p> <p>National programmes</p> <p>1. Without prejudice to their current data collection obligations under Community law, Member States shall collect primary biological, technical, environmental and socioeconomic data within the framework of a multi-annual national programme (hereinafter referred to as the national programme) drawn up in accordance with the Community programme.</p> <p>2. The national programme shall include, in particular, the following matters as provided for in Section 2:</p> <p>(a) multi-annual sampling programmes;</p> <p>(b) a scheme for at-sea monitoring (including monitoring in inland waters for diadromous species) of commercial and recreational fisheries, where necessary;</p> <p>(c) a scheme for research surveys-at-sea (including research surveys in inland waters for diadromous species);</p>	<p>Article 4 only addresses ‘at-sea’ monitoring in paragraph 2(b) and research surveys-‘at-sea’ in paragraph 2(c). To be consistent with Article 3 these should include monitoring and surveys in inland waters for diadromous species.</p>

<p>(d) a scheme for management and use of the data for scientific analyses purposes.</p> <p>3. The procedures and methods to be used in collecting and analysing data and in estimating their accuracy and precision shall be included in the national programmes.</p> <p>4. Member States shall submit their national programmes for approval to the Commission. They shall submit them by electronic means by the date, in the format and to the address to be established by the Commission in accordance with the procedure referred to in Article 27(2).</p> <p>5. The first national programmes shall include the activities for the years 2009 and 2010.</p> <p><i>Article</i></p>	
<p>Article 9</p> <p style="text-align: center;">SECTION 2</p> <p style="text-align: center;"><i>Requirements for the data collection process</i></p> <p style="text-align: center;"><i>Article 9</i></p> <p>Sampling programmes</p> <p>1. Member States shall establish multi-annual national sampling programmes.</p> <p>2. Multi-annual national sampling programmes shall include, in particular:</p> <p>(a) a sampling design for biological data following fleet-fishery based sampling including, where appropriate, recreational fisheries;</p> <p>(b) a sampling design for ecosystem data that allows the impact of the fisheries sector on the marine (and diadromous fisheries on inland water) ecosystem to be estimated and that contributes to monitoring of the state of the marine (and inland water) ecosystem;</p> <p>(c) a sampling design for socio-economic data that permits the economic situation of the fisheries sector to be assessed and enables its performance over time to be analysed, and impact assessments of measures undertaken, or proposed to be carried out.</p> <p>3. The protocols and the methods used for the establishment of national sampling programmes shall be given by Member States and shall be, as far as possible:</p> <p>(a) stable over time;</p> <p>(b) standardised within regions;</p> <p>(c) in accordance with the quality standards established by the appropriate regional fisheries management organisations to which the Community is contracting party or observer and relevant international scientific bodies.</p> <p>4. Accuracy and precision for the data collected shall be systematically estimated where required.</p>	<p><i>Article 9</i></p> <p>Article 9, 2(a) refers only to fleet-fishery based sampling which appears inappropriate to commercial and recreational fisheries for eels and salmon. However, this is not critical because the list is not exclusive.</p> <p>Article 9,2(b) refers only to the marine ecosystem but the potential impact of fisheries for diadromous species on the inland waters ecosystem should also be assessed.</p>
<p><i>Article 11</i></p> <p style="text-align: center;"><i>Article 11</i></p>	<p><i>Article 11</i></p>

<p>At-sea monitoring of commercial and recreational fisheries</p> <p>1. Where necessary for the purposes of the collection of the data under the national programmes, Member States shall design and implement at-sea monitoring of commercial and recreational fisheries and monitoring in inland waters for diadromous species.</p> <p>2. The tasks of the at-sea monitoring shall be determined by the Member States.</p> <p>3. The masters of Community fishing vessels shall accept on board samplers operating under the at-sea monitoring scheme and designated by the body in charge of the implementation of the national programme and cooperate with them in order to allow them to discharge their duties while on board Community fishing vessels.</p> <p>4. The masters of Community fishing vessels may refuse to accept on board the samplers operating under the at-sea monitoring scheme only on the basis of an obvious lack of space on the vessel or for safety reasons in accordance with national legislation. In such cases, data shall be collected through a self-sampling programme, carried out by the crew of the Community fishing vessel, and designed and controlled by the body in charge of the implementation of the national programme.</p>	<p>Article 11, paragraphs 1 and 2 refer only to monitoring programmes at sea but monitoring programmes are also required for diadromous species in inland waters.</p> <p>Article 11, paragraphs 3 and 4 refer only to on board sampling programmes at sea involving registered vessels, but observers also collect data for diadromous species in inland fisheries.</p>
<p><i>Article 12</i></p> <p style="text-align: center;"><i>Article 12</i></p> <p style="text-align: center;">Research surveys at sea</p> <p>1. Member States shall carry out research surveys at sea and in inland waters for diadromous species to evaluate the abundance and distribution of stocks, independently of the data provided by commercial fisheries, and to assess the impact of the fishing activity on the environment.</p> <p>2. The list of research surveys at sea and in inland waters for diadromous species eligible for the Community financial assistance shall be adopted in accordance with the procedure referred to in Article 27(2).</p>	<p><i>Article 12</i></p> <p>Article 12 paragraphs 1 and 2 refer only to research surveys at sea, but such surveys are also required for diadromous species in inland waters.</p>
<p style="text-align: center;">CHAPTER IV</p> <p style="text-align: center;">USE OF DATA COLLECTED IN THE FRAMEWORK OF THE CFP</p> <p style="text-align: center;"><i>Article 15</i></p> <p style="text-align: center;">Data covered</p> <p>1. This Chapter shall apply to all data collected:</p>	<p><i>Article 15</i></p>

<p>(a) under Regulations (EEC) No 2847/93, (EC) No 788/96, (EC) No 2091/98, (EC) No 104/2000, (EC) No 2347/2002, (EC) No 1954/2003, (EC) No 2244/2003, (EC) No 26/2004, (EC) No 812/2004, (EC) No 1921/2006, (EC) No 1966/2006 and (EC) No 1100/2007;</p> <p>(b) under the framework of this Regulation:</p> <p>(i) data on vessels' activity based on information from satellite monitoring and other monitoring systems with the required format;</p> <p>(ii) data allowing the reliable estimation of the total volume of catches per stock by defined regional fishing types and fleet segments, geographical area and time period, including discards and, where appropriate, data regarding catches in recreational fisheries;</p> <p>(iii) all data needed to assess the status of exploited stocks;</p> <p>(iv) ecosystem data needed to evaluate the impact of fishing activities on the marine ecosystem;</p> <p>(v) the socio-economic data from the fisheries sector.</p> <p>2. Member States shall avoid any duplication in the collection of the data referred to in paragraph 1.</p>	<p>Assessment of diadromous species requires data on habitat quantity and quality. It appears that this can be accommodated within the Regulation by removing the word 'biological' in Article 15, paragraph 1(b)(iii). There would still be a need for end-users to demonstrate that the data are used in assessments.</p>
<p style="text-align: center;"><i>Article 16</i></p> <p style="text-align: center;">Access to and transmission of primary data</p> <p>1. For the purpose of the verification of the existence of the primary data collected in accordance with Article 4(1), other than socio economic data, Member States shall ensure that the Commission has access to the national computerised databases referred to in Article 13(a).</p> <p>2. For the purpose of the verification of the socio-economic data collected in accordance with Article 4(1) Member States shall ensure that the Commission has access to the national computerised databases referred to in Article 13(b).</p> <p>3. Member States shall conclude agreements with the Commission to ensure effective and unhindered access for the Commission to their national computerised databases referred to in paragraph 1 and 2, without prejudice to the obligations established by other Community rules.</p> <p>4. Member States shall ensure that the primary data collected under the research surveys at sea and in inland waters for diadromous species are transmitted to international scientific organisations and appropriate scientific bodies within regional fisheries management organisations in accordance with the international obligations of the Community and the Member States.</p>	<p><i>Article 16</i></p> <p>Article 16 para 4, refers only to research surveys at sea but should include data collected under the research surveys for diadromous species in inland waters.</p>

Annex III: Data collection in the Mediterranean and Black Sea: review of the GFCM feedback on the DCF

GFCM Feedback	EU DCF vs. GFCM DCRF	Proposed Action	Comments
<u>Length sampling</u> to enlarge the availability of age-length keys in certain areas such as GSA 1 and GSA 6.	In line with DCF	None	Commission Decision (2010/93/EU) states that <i>'If necessary, specific stock-based samples shall be added if metier-based sampling fails to provide the appropriate precision for length distributions at the stock level'</i>
Identify <u>stock units</u> and standardize sampling programs by the countries concerned in areas where there are evidences of shared stocks or where stock limits are not clearly identified.	In line with DCF	Fund relevant projects and assist third countries exploiting shared stocks	More emphasis is placed on regionalisation in new DCF. Requests for identification of stock units should be passed through the RCGs (Regional Coordination Groups); a preliminary list of shared stocks is reported in Annex I (SAC October 2006, GFCM 2006). Due to fact that many stocks are shared with third countries it is emphasised that in order to know the status of such stocks and to have a complete coverage it is crucial to involve third countries in biological sampling.
Facilitate <u>sub-regional coordination</u> on the sampling process to improve the availability of biological parameters.	In line with DCF	None	More emphasis is placed on regionalisation in new DCF.
Include <u>alien species</u> that are competing and in some cases replacing indigenous targets in certain fisheries.	In line with DCF	None	Alien species have been identified and reported in Group 3 species during the Regional Coordination Meeting for the Mediterranean and Black Sea (in the future DCF it will become RCG). It is within the remit of the RCGs to review Group 3 species periodically.
<u>Red coral</u> harvesting is being regulated by a new Regional Management Plan that will be set in the next year (2014) in the GFCM area which include data collection of catches, effort, size, biological parameters and sales notes in designated ports, therefore including this species in the list of regular sampling would be advisable.	Not in line with DCF	Include red coral in new DCF	To include red coral data collection in new DCF. Mandatory data to be included in the new DCF: data on catches, fishing effort by area. Additional data to be agreed at the level of RCGs.
<u>Environmental variables</u> are crucial to understand fluctuations of certain species, the SCSA recommended to gather information on productivity (i.e. Chl. A), to be incorporated to the models for small pelagic assessments	Partly in line with DCF	None	Some environmental parameters (e.g. temperature, salinity) are collected during surveys. Requests for additional environmental parameters should be passed through the RCGs.
The GFCM recommends to continue surveys and harmonize <u>survey protocols</u> between EU and non-EU countries for several stocks.	Not in line with DCF	None	Harmonised and well standardised protocols exist for demersal and pelagic scientific surveys in the Mediterranean area (MEDITS and MEDIAS).
Paragraph 6, <u>by-catch</u> : species of conservation concern, species listed in Annex II / Annex III of the Barcelona Convention (SPA/BD Protocol)	In line with DCF	None	The future DCF will include data collection on by-catch of protected species.
<u>Environmental indicators</u> ; diversity of macro-benthic invertebrates	In line with DCF	None	Data on macro-benthic invertebrates is available from surveys (MEDITS). Data requests for environmental indicators which go beyond this should be agreed at level of RCGs.

Annex IV: By-catch data collection

Level	Needs the DCF should address	Problems identified	Objectives of revision	Options for addressing problem	Proposed solution	Cost implication	GFCM-DCRF	Overlap with MSFD
Architecture of the DCF	Monitoring of Non-Retained By-catch	Currently not in DCF	live up to treaties; Good environmental Status; streamlining regulations	To include it in the new regulation	Identification of adequate fisheries and/or species at RCG's	Extra effort hence cost will vary according to needs identified		

Guidelines

Non-retained by-catch sampling	Monitoring of Incidental by-catch	where recorded: no entry of data in the database	Identified end user must receive the data	a. Incorporate new fields in National database and adjust data processing, incl. data validation b. Upload directly to Regional Database;	a. Incorporate new fields in National database and adjust data processing, incl. data validation b. Synchronize with RDB	low	in agreement	Link to descriptor 1,4
		no sampling on "haul level"; subsample (basket) is too small	Level of data recording needs to be in line with end user needs	In protocol clear instruction to sample at haul level	indicate %coverage on haul level (ref WGBYC2014)	training; develop guides; updating manuals;	in agreement	
		Fishermen do not like to cooperate, because species are protected and/or because of negative publicity	To improve data quality	Involve fishermen in the data collection process (Fisheries Science Partnerships; FSP); negative incentives (penalties); look at refusal rates	Involve fishermen in the data collection-process (Fisheries Science Partnerships; FSP)	cost implications may be high, depending on situation;	in agreement	

Level	Needs the DCF should address	Problems identified	Objectives revision	Options for addressing problem	Proposed solution	Cost implication	GFCM-DCRF	Overlap with MSFD
	Monitoring of small-sized bulk by-catch - non-commercial**	no sampling on "haul level"; subsample (basket) is too small	Level of data recording needs to be in line with end user needs	In protocol clear instruction to sample at adequate level (ref. Design base sampling)	Business to be taken up by the RCGs .	Costs may be very high, because dedicated sampling may be required	not in agreement ; problems similar as other regions	Link to descriptor 1,4,6
		where recorded: no entry of data in the database	Identified end user must receive the data	a. Incorporate new fields in National database and adjust data processing, incl. data validation b. Upload directly to Regional Database;	a. Incorporate new fields in National database and adjust data processing, incl. data validation b. Synchronize with RDB	low	not in agreement ; problems similar as other regions	Link to descriptor 1,4,6
	Monitoring of small-sized bulk by-catch - commercial	Not considered to be a problem. It is covered by the DCF and linked to landing obligation.					in agreement	Link to descriptor1,3,4,6

Annex V: Detailed comments on economic data collection in the aquaculture and processing industry

ToR: Clarify primary activity and target population

Companies may be involved in different economic activities (or businesses). Companies are classified according to their principal (=primary) activity. The EU follows the Statistical Classification of Economic Activities commonly referred to as NACE. This classification is done according to the principal source of revenue. The DCF follows also the principal source of revenue to identify the companies that they do aquaculture and processing.

Currently, data collection for aquaculture is done for the companies that have aquaculture as main activity. On the other hand, for the processing industry it is also done for the companies that have processing of fish products as main activity (NACE 10.20); while for companies that carry out processing of fish products but not as main activity it is mandatory to collect data on turnover and number of enterprises every three years.

Considering that aquaculture data collection is done at the company level, it is possible that a company has other economic activities besides aquaculture (i.e. processing, marketing, oil drilling) or agriculture in general. It would be desirable that revenues and costs from other activities of the enterprise that are not related to the aquaculture sector are separated from the aquaculture data collected when possible. Specific categories should be created if these data are collected (i.e. “other activity income” and “other activity costs”), to avoid that these items appear in the economic performance estimation of the aquaculture sector. However, the group considers that the collection of these specific data may be very difficult and disproportionately costly. If an economic performance or productivity analysis of the aquaculture sector is required, it is important to have aquaculture sector data separated from other activities’ data. Instead, if the economic strength of the companies carrying out aquaculture is to be analysed, data from all activities of those companies are required.

It could be desired to collect turnover and volume of sales (or production and value) only every 3 years for companies that carry out aquaculture but not as a main activity. It would make sense that these data are only collected for important companies. In order to establish the importance of a company from an aquaculture production point of view a threshold could be established (i.e. a certain level of production or revenues in aquaculture).

It is advisable that if raw material data (on the species and the source of origin) are to be collected (or a study is performed to analyse the collection feasibility) in the processing sector) it is only done for important companies (over a certain threshold).

ToR: Harmonization with Eurostat

STECF-14-02 on the Revision of the DCF (page 30), in accordance with STECF 13-29 (EWG 13-10) on the Economic Performance of the EU Aquaculture Sector (page 378), and STECF-13-12 on the Review of DC-MAP – Part 2 (EWG 13-05):

11.3 Segmentation of aquaculture data on the basis of findings and recommendations of previous STECF and PG-ECON meetings and harmonization needs against EUROSTAT.

Current segmentation is done by main species and aquaculture technique. It has been proposed to increase the number of species and aquaculture techniques. This would lead to harmonization needs with Eurostat from the techniques perspective, but it is not possible to segment detailed by species.

As presented in the EWG 13-10 report, for all fish species (marine and freshwater), current “farming techniques” included in the DCF Multiannual Programme (“hatcheries and nurseries”, “on-growing”, “combined” and “cages”) could be replaced by the following “**aquaculture techniques**” included in the (Eurostat) statistical Regulation (EC) No 762/2008 on aquaculture (“ponds”, “tanks and raceways”, “enclosures and pens”, “cages”, “recirculation systems”, “other methods”) as well as “combined” and “hatcheries and nurseries” which should be maintained from the current DCF (because they are relevant from an economic point of view ...).

Shellfish segments are to be renamed as mollusc segments, in line with the (Eurostat) statistical Regulation (EC) No 762/2008 on aquaculture. However, further disaggregation of the mollusc segment into species groups, (“mussels”, “oysters”, “clams” and “other molluscs”), as included in the current DCF Multiannual Programme, should be maintained. Even though such level of detail is not included in the Eurostat statistical regulation on aquaculture data, these economically relevant species groups are of important additional use.

Furthermore, the EWG recommends to keep the current technical segmentation in the DCF (“raft”, “long-line”, “bottom” and “Other”) rather than to adopt those in the Eurostat statistical regulation on aquaculture (“on bottom”, “off bottom” and “others”) because the current DCF segmentation better reflects the cost structure. There may be a need to further define the different aquaculture techniques in the future DCF, and a possible partial source of definition can be found in FAO. The new segment “Others” would report under the aquaculture technique “all methods”.

Currently the DCF Multiannual Programme only covers marine aquaculture (as mandatory). Once freshwater aquaculture is included in the revised DCF, there will be a need to differentiate the **environment** (saltwater or freshwater) for all segments, in line also with the Eurostat statistical regulation on aquaculture. This may be relevant for salmon and trout, as well as species that are currently be grouped into other species-segments; however, it may not be relevant for hatcheries and nurseries segments. EWG 13-10 recommended that this differentiation by environment should not disaggregate for brackish water (it would be under saltwater aquaculture, clarifying that the latter includes both marine and brackish).

STECF 13-29 (EWG 13-10) on the Economic Performance of the EU Aquaculture Sector (page 378), in accordance with EWG 13-05, proposed the followed segmentation in order to align the current DCF Segmentation with Eurostat segmentation: ‘the segmentation by species further disaggregated to add the following segments “Tuna”, “Eel” and “Others” (including algae and other aquatic organisms). Categories could be further disaggregated in the future if desired (to include for example, turbot, sole, algae, crustaceans, eggs for consumption and other organisms), depending on the evolution of main species in the EU aquaculture.’

So, the proposed segmentation per main species would be:

1. Salmon
2. Trout
3. Sea bass & Sea bream
4. Carp
5. Tuna
6. Eel
7. Other freshwater fish
8. Other marine fish
9. Mussel
10. Oyster
11. Clam
12. Other molluscs
13. Others (including algae and other aquatic organisms).

ToR: Shall total value of assets include cash?

The EWG 14-02 agrees with STECF 13-29 (EWG 13-10) on that because the variable “Total value of assets” from the “Capital value” variable group includes cash, it needs to be named as “Balance sheet total”, to be in line with the Structural Business Statistics.

The EWG 14-02 further agrees with STECF 13-31 “The Economic Performance of the EU Fish Processing Industry” that the indicator “Total value of assets” should be changed to “Balance sheet total”. This is to comply with the SBS and to avoid confusion on whether or not monetary assets should be included in this indicator. In the parameter “Balance sheet total” both physical and monetary assets are included.” This leads to more consistency between the processing and aquaculture sector terminology.

1 - Information on STECF members and invited experts' affiliations is displayed for information only. In some instances the details given below for STECF members may differ from that provided in Commission COMMISSION DECISION of 27 October 2010 on the appointment of members of the STECF (2010/C 292/04) as some members' employment details may have changed or have been subject to organisational changes in their main place of employment. In any case, as outlined in Article 13 of the Commission Decision (2005/629/EU and 2010/74/EU) on STECF, Members of the STECF, invited experts, and JRC experts shall act independently of Member States or stakeholders. 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 invited experts make declarations of commitment (yearly for STECF members) to act independently in the public interest of the European Union. 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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10 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:
<http://stecf.jrc.ec.europa.eu/web/stecf/ewg1402>

List of background documents:

- EWG-14-02 – Doc 1** - Declarations of invited and JRC experts (see also section 9 of this report – List of participants).
- EWG-14-02 Doc 2** - DG MARE. Architecture of the DCF and EU MAP – state of play and proposed changes (Brussels, 21 February 2014).
- EWG-14-02 Doc 3** - DG MARE. Regional cooperation – state of play and proposed changes (Brussels, 21 February 2014).
- EWG-14-02 Doc 4** - DG MARE. Recreational fisheries – state of play and proposed changes (Brussels, 21 February 2014).
- EWG-14-02 Doc 5** - DG MARE. Data collection in international waters – state of play and proposed changes (Brussels, 21 February 2014).
- EWG-14-02 Doc 6** - DG MARE. Bio-economic modelling (Brussels, 21 February 2014).
- EWG-14-02 Doc 7** - Scientific, Technical and Economic Committee for Fisheries (STECF) – Review of proposed DCF 2014-2020 Part 2 (STECF-13-01). 2013. Publications Office of the European Union, Luxembourg, EUR 25825 EN, JRC 79209, 85 pp.
- EWG-14-02 Doc 8** - Scientific, Technical and Economic Committee for Fisheries (STECF) – Review of DC MAP – Part 1 (STECF-13-06). 2013. Publications Office of the European Union, Luxembourg, EUR 25974 EN, JRC 81593, 42 pp..
- EWG-14-02 Doc 9** - Scientific, Technical and Economic Committee for Fisheries (STECF) – Review of DC MAP – Part 2 (STECF-13-12). 2013. Publications Office of the European Union, Luxembourg, EUR 26095 EN, JRC 83566, 84 pp.
- EWG-14-02 Doc 10** - Scientific, Technical and Economic Committee for Fisheries (STECF) – Revision of DCF (STECF-14-02). 2014. Publications Office of the European Union, Luxembourg, EUR 26573 EN, JRC89196, 103 pp..
- EWG-14-02 Doc 11** - ICES. 2013. Feedback on data needs in the new DC-MAP (June 5th, 2013).
- EWG-14-02 Doc 12** - ICES. 2013. Report of the ICES Working Group on Recreational Fisheries Surveys 2013 (WGRFS), 22-26 April 2013, Esporles, Spain. ICES CM 2013/ACOM:23. 49 pp.
- EWG-14-02 Doc 13** - ICES. 2012. Report of the Workshop on Eel and Salmon DCF Data (WKESDCF), 3 – 6 July 2012, ICES HQ, Copenhagen, Denmark. ICES CM / ACOM:62. 67 pp.
- EWG-14-02 Doc 14** - GFCM. Proposal for the GFCM Data Collection Reference Framework (Feb. 2014).
- EWG-14-02 Doc 15** - GFCM. Feedback on the Data Collection Framework DCF (Oct. 2013).
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Abstract

The Expert Working Group meeting of the Scientific, Technical and Economic Committee for Fisheries EWG-14-02 DCF Revision – part 4 - was held from 24-28 February 2014 in Hamburg, Germany. The report was reviewed by the STECF during its plenary meeting 24-28 March 2014 in Brussels, Belgium.

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The Scientific, Technical and Economic Committee for Fisheries (STECF) has been established by the European Commission. The STECF is being consulted at regular intervals on matters pertaining to the conservation and management of living aquatic resources, including biological, economic, environmental, social and technical considerations.

