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COMMITTEE FOR FISHERIES
(Spring Plenary Meeting)

Ispra, 23-27 April 2007

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

CONTENTS

1	INTRODUCTION	1
2	LIST OF PARTICIPANTS	2
3	TERMS OF REFERENCE	3
3.1	INFORMATION FROM THE COMMISSION AND 2007 PLANNING.....	3
3.2	CONSERVATION ISSUES	3
3.2.1	<i>Evaluation of the cod recovery plan</i>	3
3.2.2	<i>Plaice and sole long-term management (impact assessment)</i>	4
3.2.3	<i>Evaluation of “policy statement” harvest rules</i>	4
3.2.4	<i>Evaluation of closed areas</i>	4
3.2.5	<i>Protection of marine resources</i>	4
3.2.6	<i>Possible modification of the specific reference levels of the fleet segments registered in the French outermost regions with particular attention on the shrimp and roundfish fisheries in the Guyana continental shelf and on tuna fisheries in the Indian ocean.</i>	4
3.3	ECONOMIC ISSUES	5
3.4	DATA ISSUES	5
3.4.1	<i>Review of 2007 national programmes</i>	5
3.4.2	<i>- Review of the list of surveys and level of priorities</i>	5
3.4.3	<i>Capital costs and full time employment</i>	6
4	INFORMATION FROM THE COMMISSION AND 2007 PLANNING	7
4.1	APPOINTMENT OF NEW STECF	7
4.2	PENDING INDEMNITIES	7
5	CONSERVATION ISSUES	8
5.1	COD RECOVERY PLAN	8
5.1.1	<i>Terms of Reference</i>	8
5.1.2	<i>STECF conclusions and recommendations</i>	9
5.2	ADVICE ON REQUESTS SUBMITTED BY MS TO APPLY POINT 11 OF ANNEXE IIA AND POINT 10 OF ANNEXE IIB AND IIC OF R(EG) NO 41/2007.	10
5.2.1	<i>Additional days for enhanced observer coverage – general principle</i>	11
5.2.2	<i>Notes on the specific proposals</i>	11
5.3	PLAICE AND SOLE LONG-TERM MANAGEMENT (IMPACT ASSESSMENT)	11
5.3.2	<i>Evaluation of Policy Statement (Harvest Rules)</i>	14
5.3.3	<i>Evaluation of closed areas</i>	18
5.3.4	<i>Evaluaton of the plan for the protection of marine resources around Sardinia</i>	19
5.3.5	<i>Technical measures in the Baltic</i>	21
5.3.6	<i>Possible modification of the specific reference levels of the fleet segments registered in the French outermost regions with particular attention to tuna fisheries in the Indian ocean.</i>	21
5.3.7	<i>Advice on the possible improvement of the annual report fro the Commission to the Council and the European parliament on Member States’ efforts to achieve a sustainable balance between fishing capacity and fishing opportunities.</i>	23
6	FISHERIES ECONOMICS	24
6.1	ECONOMIC ASSESSMENT OF EU FLEETS (AER)	24
6.1.1	<i>Question to STECF</i>	24
6.1.2	<i>STECF opinion on outcome of subgroup meeting</i>	24
6.1.3	<i>Proposed annual procedure</i>	24
6.1.4	<i>conclusion</i>	26
7	DATA COLLECTION ISSUES	27
7.1	REVIEW LIST OF SURVEYS AND PRIORITIES (APPENDIX XIV OF EC REGULATION N° 1581/2004) WITH THEIR PRIORITIES	27
7.1.1	<i>Terms of reference of subgrouo</i>	27
7.1.2	<i>Prioritisation criteria</i>	27
7.2	REVIEW OF ECONOMIC PARAMETERS UNDER THE DATA COLLECTION REGULATION (NO R(EC) 1639/2001 AND AMENDED BY NO R(EG) 1581/2004)	30
7.2.1	<i>Terms of reference</i>	30

7.2.2	<i>STECF opinion</i>	30
7.3	REVIEW OF 2007 NATIONAL PROGRAMMES	31
7.3.1	<i>Sub-group meeting</i>	31
7.3.2	<i>STECF opinion</i>	31
7.3.3	<i>Other issues:</i>	33
7.4	REVIEW OF DCR - PARAMETERS FOR STOCK ASSESSMENT	34
7.4.1	<i>Background</i>	34
7.4.2	<i>STECF opinion</i>	34
7.4.3	<i>SGRN proposal on sampling population and its stratification</i>	35
7.4.4	<i>Data coordination for ICES /STECF</i>	36
7.5	MACKEREL. IMPLICATIONS OF CEFAS WITHDRAWAL FROM EGG-PRODUCTION SURVEY IN THE WESTERN AND SOUTHERN SPAWNING AREAS OF MACKEREL AND HORSE MACKEREL	37
7.5.1	<i>Background</i>	37
7.5.2	<i>Reasons for withdrawal</i>	37
7.5.3	<i>Implications</i>	37
7.5.4	<i>STECF comments</i>	37
7.6	MANAGEMENT OF THE DATA BASE BUILT BY THE STECF SGRST WG IN THE CONTEXT OF ANNEXE II TO R(EC) NO 41/2007.....	38
7.6.1	<i>Formal call for data from MS</i>	38
7.6.2	<i>Format of the spreadsheet and codes to be used in the future for species, MS, fishing areas to ensure consistency with other data bases</i>	38
7.6.3	<i>Legal framework and legal responsibility for the filing, management, access rights, consultation extraction and transmission for such a data base.</i>	38
8	OTHER ISSUES	39
8.1	STECF PARTICIPATION IN THE ADVISORY COMMITTEE FOR FISHERIES AND AQUACULTURE (ACFA) 39	
8.2	PRESENTATION OF THE AQUARING PROJECT (EC E-CONTENTPLUS PROGRAMME)	39

1 INTRODUCTION

STECF met at the Casa Don Guanella in Barza d'Ispra (Italy) from 6 to 10 November 2006.

The Chairman of the STECF, Dr John Casey, opened the plenary session at 15:30.

The terms of reference for the meeting were reviewed and the meeting agenda agreed. The session was managed through alternation of Plenary and working group meetings.

The meeting closed at 18:00h on 10 November.

2 LIST OF PARTICIPANTS

Members of the STECF:

Ardizzone, Giandomenico
Bertignac, Michel
Casey, John (Chairman & Rapporteur)
Di Natale, Antonio (Vice chairman & rapporteur)
Farina, Antonio Celso
Gustavsson, Tore (Vice chairman)
Keatinge, Michael
Kuikka, Sakari (Rapporteur)
Messina, Gaetano
Munch-Petersen Sten
Perraudeau, Yves
Petrakis, George
Polet, Hans
Raetz, Hans-Joachim (Rapporteur)
Vanhee, Willy (Rapporteur)
Van Hoof, Luc
Virtanen, Jarno (Rapporteur)

Invited experts

Bailey, Nick (Rapporteur)
Clarke, Maurice (Rapporteur)
Curtis, Hazel
Fonteneau, Alain
Pastoors, Martin
Redant, Frank
Salz, Pavel

European Commission DG-FISHERIES AND MARITIME AFFAIRS

Biagi, Franco
Calvo Angel
Daniel, Patrick
Lindebo, Erik
Patterson, Kenneth

European Commission DG-JOINT RESEARCH CENTRE (JRC)

Doerner, Hendrik
Shepherd, Iain

3 TERMS OF REFERENCE

The terms of reference included both issues that had been prepared a month in advance and those more urgent matters that were announced shortly before the meeting. The two categories are not distinguished below.

3.1 INFORMATION FROM THE COMMISSION AND 2007 PLANNING

The Commission will inform STECF of progress on issues concerning the framework for scientific advice in 2007 and afterwards. The issues concerned will include:

1. Nomination of new STECF
2. Rules of procedures of the STECF

3.2 CONSERVATION ISSUES

3.2.1 Evaluation of the cod recovery plan

3.2.1.1 Review of subgroup SGRST-07-01

STECF should deliver an opinion based on the work done by subgroup SGRST-07-1 (26-30 March, Hamburg). As substantial background information has been analysed, STECF is not requested to provide further detailed scientific analysis nor recalculation of parameters but to provide a general synthesis and review of preceding work and to provide strategic advice.

3.2.1.2 Impact Analysis

1. What do we know about the state of the cod stock, the deployment of effort and the effect of the cod recovery measures on the fleet, including economic measures?
2. What critical information or analysis is missing?
3. How can this be provided?

3.2.1.3 Effort Control

1. Has the days-at-sea system had a significant effect on deployed effort or on fleet capacity in the different areas?
2. Should the days-at-sea system be replaced by other systems eg. a regional limit on kW-days deployed? Or supplemented with a decommissioning scheme and tighter landings controls?
3. If not, can improvements or simplifications to the days-at-sea scheme be suggested? In particular, what groupings of fishing gear could be joined together without losing efficiency in the system?

3.2.1.4 Technical Measures

1. Can there be improvements to technical measures (including closed areas)? How much would these contribute to cod recovery?
2. Are significant catches of cod taken in pots and reels?
3. Is the western margin of the cod recovery zone in the right place?
4. Is it feasible to prohibit discards or to limit cod catches to by-catch only?

3.2.1.5 Harvest Rule for Cod Recovery

The current cod recovery plan is based on a target 30% annual increase in spawning biomass. This has not been implementable because of absence of a corresponding scientific forecast.

1. Will it be feasible to obtain forecasts soon? If so
 - a. is there still a need to change the system?
2. In the absence of forecasts, should the rule be changed to a decrease in fishing mortality and effort? If so:
 - a. To what level, and how fast, should fishing mortality be reduced?

- b. How should this be implemented?
 - a. Cod end selectivity in NE Atlantic

3.2.2 Plaice and sole long-term management (impact assessment)

The SCEGA-SGRST subgroup conducted a follow-up meeting (SCEGA-SGRST-07-01) (20-23 March) to the meeting (SCEGA-SGRST-06-05, 26-29 Sep.2006). The subgroup was requested to assess the impact of the Commission's proposal for a Council Regulation "establishing a management plan for fisheries exploiting stocks of plaice and sole in the North Sea". STECF should deliver an opinion based on the work of the subgroup

3.2.3 Evaluation of "policy statement" harvest rules

The Communication sets out the rules that the Commission intended to apply in 2006 in order to make TAC proposals for 2007, based on stock assessments and forecasts provided by ICES and STECF. The rules were established on a policy basis, with a high priority on providing stability for the industry where possible, although the likely long-term consequences of applying such an approach had not been evaluated. The Commission intends to pursue a similar approach for 2008 by preparing a Communication in April 2007 establishing the intended TAC-setting rules. However, the Commission wishes to obtain scientific advice concerning the likely effects of applying such rules, even if this exercise is preliminary in nature. The request for advice covers only those stocks not already subject to long-term plans (for which specific requests for advice have already been made) and also excludes stocks where no analytic assessment is available (as that topic is intractable at present). STECF should deliver an opinion based on the work of the subgroup SGMOS-07-

3.2.4 Evaluation of closed areas

The Commission is in the process of revising the technical measures used under the CFP. As a part of this, an evaluation of closed areas is required. A considerable body of material and evaluations has been compiled through a number of research projects and study groups. A two step approach is therefore applied: first an overview is made of the existing MPA's within the EU EEZ and of the existing material and evaluations. Then meetings will be set up to evaluate specific sets of MPAs using the existing material supplemented with calls for data as required.

Two subgroups will be scheduled for 2007 (March, September) to deal with closed areas. The SGMOS-07-02 meeting (19-21 March) was the first step in this process and was expected to provide an inventory of MPAs, an overview of existing information and evaluations relating to these and an identification of data requirements to produce supplementary evaluations as required. STECF should deliver an opinion based on the work done by the subgroup.

3.2.5 Protection of marine resources

STECF should deliver an opinion based on the work done by subgroup SGBRE-07-02 (6-8 Feb).

Sardinia has submitted scientific information in support of a plan for the protection of the resources for the period 2006-2008; by the time of issuing the terms of reference for the subgroup the legislative act implementing the plan for the protection of the aquatic resources has not yet been notified to the Commission. Amongst other ToR, the subgroup was asked to evaluate whether the plan for the protection of the resources was based on information and sound scientific analysis that allow to establish measurable objectives as well as to determine a diagnosis of the state of the stocks and of the fisheries object of the plan.

3.2.6 Possible modification of the specific reference levels of the fleet segments registered in the French outermost regions with particular attention on the shrimp and roundfish fisheries in the Guyana continental shelf and on tuna fisheries in the Indian ocean.

3.2.6.1 background

The French authorities have submitted to the Commission two development plans for French Guyana and Reunion Island. These proposals rest on a Council and Commission joint statement (n°17), presented in margin of the adoption of the European Fund for Fishing on June 2006, stipulating that, in the light of studies covering the matter and of the STECF's analysis on the state of the fishery resources

in the regions concerned, it is appropriate to define suitable measures making it possible to ensure the sustainable development of the fisheries sector in the outermost regions.

The first plan foresees the construction of 15 new longliners accounting for on the whole 11,250 kW and 4,500 GT, to be registered at the Reunion Island with a view to complement the already existing fisheries to the large pelagic species in the Indian Ocean, located in international waters and in waters under French jurisdiction around the scattered islands of the channel of Mozambique, and in the Malagasy EEZ, thus counting on the granting of new licences under the future fishing agreement having to connect the European Union and the Republic of Madagascar.

The second of these plans revolves into two aspects: the first aspect corresponds to a construction project of six new prawn boat trawlers, representative on the whole 1,878 kW and 576 GT, to be registered in French Guyana and having to complement the already existing shrimps fisheries above the continental shelf of this French overseas department.

The second aspect aims at the increase in the number of units targeting the white snapper and the fish on the continental shelf of French Guyana.

The general context for the management of the fishing fleets registered in the Community outermost regions is defined by the Council Regulation(EC) No 639/2004 while the specific capacity reference levels by fleet segment for the outermost regions are fixed by Commission Regulation (EC) No 2104/2004 as corrected by Commission Regulation (EC) No 1570/2005.

3.2.6.2 Terms of reference

In the light of current knowledge of the state of stocks and of the deployed fishing effort, as well as on the basis of data submitted by the French authorities and provided to the committee, STECF is requested to advise on:

1. Does the capacity registered in the segments of fleets concerned appear adapted to the potentials of exploited resources in the case of the following fisheries?
 - a. Fisheries to the large pelagic species of the Indian Ocean;
 - b. Fisheries to the shrimps of the Guianese continental shelf;
 - c. Fisheries to the white snappers and fish of the Guianese continental shelf.
2. Can an increase in capacity be envisaged in each case?

If affirmative, what would be the levels of fishing capacity and fishing effort that the STECF would recommend to ensure a sustainable exploitation of resources and further development of the fisheries sector?

3.3 ECONOMIC ISSUES

STECF should deliver an opinion based on the outcome of the subgroup for economic affairs (SGECA)'s SGECA-07-02 meeting of March 12-16

3.4 DATA ISSUES

3.4.1 Review of 2007 national programmes

STECF should deliver an opinion based on the outcome of the SGRN-06-04 meeting of November 20-24. The subgroup was requested to:

1. Evaluate derogations and non-conformities in the Member States' National Programme Proposals for 2007, based on the report by the External Evaluators,
2. update of the guidelines for the Technical reports 2006 and National Programmes 2008,
3. evaluate the Pilot Studies submitted by the new Member States, following the SGRN December 2004 recommendations,
4. and to follow-up of the recommendations from the Liaison Meeting (Brussels, 14-15 Nov. 2006).

3.4.2 - Review of the list of surveys and level of priorities

STECF should deliver an opinion based on the work done by subgroup SGRN-07-01 (12-16 Feb). The group was requested to:

1. Develop operational prioritisation criteria relating to an international dimension, importance of stocks, long term utility for fisheries management and cost efficiency in order to set up a list of surveys at sea to be supported by the new DCR with their priorities
2. Compile information on specific ongoing surveys including:
 - a. the updated information with regards to the surveys at sea provided by the Regional Coordination Meetings
 - b. the outcomes from the EVARES project
 - c. the ICES data quality exercise on demersal surveys
 - d. the additional information provided by ICES with regards to the surveys on anchovies in the Bay of Biscay and the deep-species in the North Eastern Atlantic and the overview on long-time benthic fauna surveys

3.4.3 Capital costs and full time employment

STECF should deliver an opinion based on the outcome of the SCEGA-07-01 meeting of January 15-19. The subgroup was requested to evaluate the outcomes of the tenders on Capital costs and Full Time Equivalent (employment). The subgroup evaluated the outcomes of the studies on:

1. evaluation of the capital value, investments and capital costs in the fisheries sector
2. calculation of labour including full-time equivalent (FTE) in fisheries

It then reviewed all economic indicators required by the Data Collection Regulation N°1639/2001 amended N°1581/2004 (Appendix XVII and XVIII): problems of interpretation encountered, new indicators to consider; the review is to be made in addition to what have been already agreed.

4 INFORMATION FROM THE COMMISSION AND 2007 PLANNING

4.1 APPOINTMENT OF NEW STECF

Franco Biagi (DG-FISH) said that he had collected confirmation from potential Members about their availability and the new STECF would be announced shortly. He expected that it would be in place by the next meeting in June.

The original plan had been to finalise the selection of STECF members before the November 2006 plenary session. But the Commission services have been forced to delay this because the list of suitable candidates, as established on the basis of the call for expression of interest FISH/2004/AMI (Field 5), was not considered sufficient to ensure an adequate thematic and geographic coverage.

4.2 PENDING INDEMNITIES

Franco Biagi (DG-FISH) informed the STECF on the status of pending payment of the indemnities of STECF members and experts attending meetings after August 2005. Indemnities for 2005 meetings have been paid by FISH in end April, payments for meetings 1st half 2006 will be done until end May, and payments for 2nd half 2006 shortly after. Hendrik Doerner (DG-JRC) informed that an additional secretary to help with STECF administration will soon be recruited at the JRC.

5 CONSERVATION ISSUES

5.1 COD RECOVERY PLAN

5.1.1 Terms of Reference

5.1.1.1 Original Question

As substantial background information has been analysed, the STECF is not requested to provide further detailed scientific analysis nor recalculation of parameters but to provide a general synthesis and review of preceding work and to provide strategic advice.

STECF is requested to:

- a) briefly review the latest information concerning the state of the stocks of cod in the North Sea Skagerrak and Eastern Channel, the Kattegat, the Irish Sea and the West of Scotland, with a view to determining (i) whether the stocks show signs of recovery since 2002, and (ii) whether fishing or other effects are the main factors affecting the state of these stocks.
- b) advise on the effectiveness of each of the principal conservation measures adopted since 2002 and intended to promote cod recovery;
- c) advise why these measures have delivered much less than expected in terms of cod recovery;
- d) recommend modifications (and where possible, simplifications) of the conservation measures or alternative measures in order to improve the likelihood of stock recovery.
- e) if possible, recommend modification of the harvest rules established in the cod recovery plan in order to make them effective in achieving stock recovery and implementable given the current state of scientific knowledge on the stocks concerned

5.1.1.2 Additional Question

The group received additional requests from the EU-Commission on 21 March 2007. Such additional requests are given below:

5.1.1.2.1 Impact Analysis

1. What do we know about the state of the cod stock, the deployment of effort and the effect of the cod recovery measures on the fleet, including economic measures?
2. What critical information or analysis is missing?
3. How can this be provided?

5.1.1.2.2 Effort Control

1. Has the days-at-sea system had a significant effect on deployed effort or on fleet capacity in the different areas?
2. Should the days-at-sea system be replaced by other systems eg. a regional limit on kW-days deployed? Or supplemented with a decommissioning scheme and tighter landings controls?
3. If not, can improvements or simplifications to the days-at-sea scheme be suggested? In particular, what groupings of fishing gear could be joined together without losing efficiency in the system?

5.1.1.2.3 Technical Measures

1. Can there be improvements to technical measures (including closed areas? How much would these contribute to cod recovery?
2. Are significant catches of cod taken in pots and reels/
3. Is the western margin of the cod recovery zone in the right place?
4. Is it feasible to prohibit discards or to limit cod catches to by-catch only?

5.1.1.2.4 Harvest Rule for Cod Recovery

The current cod recovery plan is based on a target 30% annual increase in spawning biomass. This has not been implementable because of absence of a corresponding scientific forecast.

1. Will it be feasible to obtain forecasts soon? If so
 - a. is there still a need to change the system?
2. In the absence of forecasts, should the rule be changed to a decrease in fishing mortality and effort? If so:
 - a. To what level, and how fast, should fishing mortality be reduced?
 - b. How should this be implemented?

5.1.2 STECF conclusions and recommendations

STECF reviewed the report of the SGRST 07-01 Working Group on Evaluation of the cod recovery plan held in Hamburg, 26-30 March 2007. The meeting was attended by stakeholders.

STECF notes that the cod recovery plan (Council Regulation (EC) No 423/2004) has not delivered reduction of fishing mortality on the cod stocks in the Kattegat (1), in the Skagerrak, North Sea and Eastern Channel (2), to the West of Scotland (3) and in the Irish Sea (4) to the extent considered necessary for stock rebuilding. Modest signs of improved recruitment in the North Sea have not so far had any bearing on SSB.

STECF concludes that despite poor recruitment in recent years which are partly attributable to environmental factors, all available information suggests that cod rebuilding is possible for all four stocks covered by the cod recovery plan, but changes to the ecosystem may affect the rate of recovery, and the magnitude of achievable stock sizes. The same conclusion applies for the cod stock in the Celtic Sea, which is not currently included in the cod recovery plan.

STECF advises that total allowable landings (TACs), technical measures (e.g. mesh size, landing compositions, area closures) and complementary effort management regulations have most likely contributed to the decline in the overall effort deployed by fisheries contributing to cod catches observed in all areas covered by the cod recovery plan. However, the reductions arising from the collective effect of these measures have been far from sufficient to reduce fishing mortalities to levels required to allow the cod stocks to rebuild and non of the four cod stocks show clear sign of recovery. The shortage of specific evaluations of technical and other measures makes it difficult to comment on their individual effectiveness but STECF notes that there has been a recent report from Ireland on the Greencastle closed area and that a similar report is expected from Scotland on the Clyde closed area.

STECF observes that the uncertainties in the recent stock size and catch estimates for all four stocks considered here have led to substantial practical difficulties in implementing the recovery plan. In the likely absence of essential stock parameters of required precision, a direct fleet based effort management should be considered, in combination with improved control and enforcement. STECF agrees with the consensus opinion of the expert group on the need for an immediate reduction in fishing pressure on cod rather than to focus on the difficult definition and achievement of long term targets. Such long-term targets are estimated to be exploitation rates in the region of 50% or less than those estimated for recent years. Any reduction in fishing effort to reduce fishing pressure on cod should be consistent with other management measures and implemented in a way, which does not allow the remaining effort to be focused on cod.

STECF considered whether the existing cod recovery plan, which extends over such a wide area, is likely to be effective in achieving rebuilding of the individual stocks contained within it. The possibility for effort to shift around within the overall zone, may lead to undesirable pressure on different stocks within the zone, confounding the prospects of rebuilding. A system involving separate zones relevant to each stock is more likely to be effective in achieving rebuilding. Under a stock specific effort management system it would be possible within each management unit to simplify the system by reducing the number of gear categories and to tailor stock specific measures.

The existing stratification of gears by management areas (Annex II system, Council Reg. 41/2007) was assessed as capable of achieving the management targets if effective effort reductions for all fleets that contribute to cod catches can be achieved. STECF advises that fleet specific effort reductions could be applied equally across the board to fleets contributing to the cod catches or weighted based on obvious

criteria such as the contribution to the cod catches (partial fishing mortality), species selectivity in the catches or the economic value of the landings. STECF notes that so far, the majority of incentives provided through species selective derogations intended to avoid cod catches, are hardly used by the fishing industry. Perverse incentives to catch and discard undersized cod were not identified.

STECF was asked by the EU-Commission to consider the option of alternative management of effort, e.g. through a regional limit on overall allocation of kW*days to fleets that catch cod. STECF considers that this option would ensure an upper cap on effort which might give flexibility to Member States to adjust fishing activity in ways appropriate to their fleets and fisheries in order to meet cod recovery targets set by the EU. However this should only be introduced in conjunction with a performance-based allocation system that provides for a reduced allocation of kW days (or some alternative appropriate measure of effort) if the contribution to cod fishing mortality increases. Such a performance based allocation system would, however, require an effective real time information flow and transparent evaluation process, which may be unrealistic to be implemented within reasonable periods. STECF notes that the current system of measurement and certification of engine power has serious shortcomings.

STECF agrees with the specific suggestions for changes to management measures:

- in the Kattegat area, where fisheries should be given incentives to avoid catching cod during the first quarter of the year (main cod fishing season). Such a measure would have a minimal effect on fisheries targeting other species like sole, plaice and *Nephrops* which occur during the remaining time of the year in that area;
- ensuring all of the area occupied by the west of Scotland cod stock is covered by the measures of the cod recovery plan, at present effort is not regulated west of a line known as the West of Scotland Management Line, even though cod catches from both sides of the line are believed to be from the same population. STECF reviewed new information provided by Member States as a response to a request of the SGRST 07-01. The recent geographical patterns of cod catches by gear types and derogations did support the conclusion that cod are taken on both sides of the line. STECF notes that the detailed graphs will be explored at the next meeting of SGRST 07-02 and are downloadable from the internet site: <http://stecf.jrc.cec.eu.int/event.php?id=82>.
- reducing cod catch at the Fladen Ground in the North Sea by specific spatial measures.

STECF identified technical inconsistencies between the regulations applying to the main cod fisheries in the individual management areas. For instance, there is no biological justification for having different mesh size – target species rules in the Kattegat and Skagerrak compared to the North Sea. Other examples are included in the area specific conclusions in the SGRST report. STECF recommends that if continuation of inconsistencies is considered appropriate then the management goal(s) were fully justified.

STECF advises that any further development of plans to reduce fishing impact on the western European cod stocks should also consider the depleted cod stock in the Celtic Sea. STECF notes that the state of the cod stock in the Rockall area is unknown. Therefore, STECF has no basis to judge on appropriate management measures for this stock.

STECF notes that deficiencies in the international estimates of gear (fleet) specific catches (landings and discards) and fishing effort as well as potential noncompliance with regulations may have affected the conclusions drawn in this review. STECF recommends the compilation and updating to the gear (fleet) specific catch and effort databases to be continued.

5.2 ADVICE ON REQUESTS SUBMITTED BY MS TO APPLY POINT 11 OF ANNEXE IIA AND POINT 10 OF ANNEXE IIB AND IIC OF R(EG) NO 41/2007.

This item relates to a Council decision, enshrined in Council Regulation 41/2007, that additional days could be allocated for enhanced observer coverage. In 2007, the Netherlands and Germany have submitted proposals for such schemes, and the UK and Ireland have announced their intentions to submit such schemes.

STECF is asked to advise on

1. The interest to maintain such a provision in any future fishing effort management scheme framework taking into account

- existing obligations or to come and related to the Data Collection Regulation
 - real need for additional information on catches and discards
2. The evaluation of submitted programmes in the light of the criteria adopted by the Council in point 11 of Annex IIA and points 10 of Annexes IIB and IIC to R(CE) No. 41/2007.

5.2.1 Additional days for enhanced observer coverage – general principle

In answer to this request STECF makes the following recommendations on point 1.

STECF welcomes initiatives to improve knowledge of catches and discards, in light of concerns that unaccounted removals are a feature of Community fisheries. Observer schemes may offer means to obtain accurate catch data. In particular, observed fishing by “Sentinel Fleets” could offer a means to obtain time series of accurate landings and discard data. However, STECF considers that linking additional days at sea with enhanced observer schemes is undesirable.

STECF considers that carrying observers improves the quality of fishery dependent data. However, observer schemes should not lead to a total days at sea allocation in excess of levels consistent with stock recovery. STECF is concerned that allocation of additional days to a varying and unknown number of vessels will lead to an increase in days at sea in recovery plan areas, beyond intended levels. STECF is also concerned about the precedent of such observer schemes, leading to increased mortality in other stocks and areas.

STECF is concerned that the schemes, as outlined in Point 11 or Annex IIA and point 10 of Annexes IIB and IIC of R(CE) No. 41/2007, that are intended to constrain F, will perversely lead to increased mortality, particularly in sensitive areas or spawning boxes.

Recognizing the need for good data, STECF considers that the obligation to accommodate an observers when requested should be mandatory. Therefore STECF encourages industry-science partnerships to develop structured observer schemes, with defined goals, appropriate coverage and suitably resourced through the Data Collection Regulation. The RACs could provide a suitable forum for such industry-science partnerships.

Another concern is the funding implication of current schemes, outline in Regulation 41/2007.

5.2.2 Notes on the specific proposals

Notwithstanding the recommendations above, STECF notes that, from a scientific point of view, the German and Dutch proposals are likely to provide enhanced information of landings and discard compositions. STECF notes that in the German plan, additional days at sea will not be awarded if observers are not deployed. A similar provision is not present in the Dutch plan.

STECF notes that the Dutch proposal seeks clarification on whether participation in more than one observer scheme could entitle each vessel to multiple allocations of additional days. STECF suggests that if this is consistent with Regulation 41/2007, then it is an undesirable feature that will lead to increases in F.

No information is currently available on the anticipated UK or Irish plans. However the STECF draws attention to its general recommendations, above.

5.3 PLAICE AND SOLE LONG-TERM MANAGEMENT (IMPACT ASSESSMENT)

A working group, SGECA-SGRST -07- 01, met in Copenhagen, 20 -23 March 2007 to provide a technical report addressing and examining practical solutions, where possible, to the issues raised in the STECF plenary report of November 2006, concerning the assessment of the proposed management plan for sole and plaice in the North Sea. The working group consisted of economists and a biologist. Furthermore observers were represented at the meeting. The following terms of reference were addressed.

5.3.1.1 Terms of reference

In reviewing the original first report, the STECF had considerable difficulty reconciling the major differences in model results. As a result at present, STECF is unable to determine whether either of the model results represents a plausible outcome in terms of economic performance. STECF is of the opinion

that there are a number of issues for which further investigation and clarification is required, before any confidence can be attached to either of the model results. STECF is aware that the analysis was made under severe time pressure and believes that the working group should be given the opportunity to revisit some of their calculations. STECF suggests that the following specific issues need to be addressed by the working group:

1. To clarify whether the implied effects of the management plan for the different fleet segments that exploit flatfish is correctly specified in the evaluation models. STECF strongly suspects that the effort reduction regime was incorrectly implemented in the EIAA evaluation since it appears that annual effort reductions of 10% were applied even after the target F s of $F=0.3$ for plaice and $F=0.2$ for sole were reached. Such a mis-specification could account for the discrepancies in the results from the different models.
2. To evaluate the effects of different stock recruit relationships on model output.
3. To increase the time span for biological model output, to include at least two full life cycles of flatfish (at least 20 years), in order to investigate the full potential impact of changes in recruitment and consequently the long term equilibrium.
4. To clarify and describe the links between the biological model and the economic model and the differences between the LEI model and the EIAA model. In particular:
 - a. the link between fishing mortality and effort in both models.
 - b. the relationship between cpue and biomass (stock-catch flexibility). This assumption is important also for determining how catches, and hence TACs are predicted in the current biological (population dynamics) model, as a function of fishing effort and fishing mortality.
 - c. the algorithms for estimating costs in both models.
5. It would be informative to undertake an evaluation of the economic impacts in the case of recruitment failure and link it to the probability of recruitment failure as assessed in the biological model.
6. It would also be informative to evaluate the relationship between fishing activity and days at sea. In the North Sea it has been shown (Casini et al., 200513) that the fish density decreases or increases with decreasing or increasing stock size (fish stay in the same area but their density increases or decreases). So it may be reasonable to assume a linear relationship between catch and fishing activity. However for the purposes of management rules, effort is calculated as days at sea which includes time to arrive at the fishing grounds. The relationship between catch and effort will therefore depend on fishermen's behaviour as well as stock density.
7. Further evaluate the impact of fleet size on the economic impacts of the management scheme. It would be informative to investigate the outcome in terms of economic performance for cases where capacity removal forms part of the overall management plan in addition to a restriction on fishing activity.
8. If possible, to evaluate the possibility for all fleets that exploit plaice and sole, to compensate their catches with species other than flatfishes.
9. Explain the differences in economic consequences for different fleets.
10. If time is available, assess the applicability of this modelling framework to other case studies (e.g. Northern hake), and suggest appropriate adjustments if necessary. Consider other models for this kind of exercise.

5.3.1.2 Introduction and background to the working group

This working group was convened to follow up the recommendations of the STECF plenary committee of November 2006, which related to the report produced by the group after its original meeting on 26-29 September 2006, SGECA-SGRST-06-05.

The approach taken by the participants to the meeting was to develop a workable approach for bio-economic modelling of long-term management plans for sole and plaice fishery in the North Sea. The approach took into account the results of the modelling undertaken at the previous meeting but no attempts were made to provide a new reference calculation. Rather the participants looked at the different parameters that influenced the results and advised which assumptions had an impact on these parameters. Finally they provided best estimates for what these parameters should be. The parameters examined are the relationship between F and effort and that between cpue and SSB. Given that the impact of these relationships is so crucial to the difference between the baseline and management plan, the participants agreed that the

accuracy with which these elements of the models reflect reality was more important than using a simplistic approach. For instance it may be necessary to choose different relationships for different fleet segments prosecuting the same fishery.

5.3.1.3 STECF Observations

Based on the work of the sub-group meeting it is observed that the rules of the management plan were correctly specified in both of the economic models.

Concerning the use of different stock recruit relationships on model output, comparing Ricker, Beverton & Holt and geometric mean of recruitment resulted in the conclusion that for sole the estimated average recruitment from Ricker curve is higher than from Beverton & Holt; similar for the geometric mean of historic recruitment. Ricker therefore gives faster SSB growth. As for plaice the same effect applies.

Concerning the link between the biological model and economic model, the economic model builds on the results of the biological model and there is no feedback to the biological model from the economic model to take account of survival of fish when TACs predicted by the biological model are not taken because of days at sea restrictions under the management plan. In such situations, the rate of recovery predicted by the biological model is underestimated leading to reduced catch per effort estimates used by the economic model and therefore underestimating the economic benefits to the fleets.

It is noted that under current management arrangements the fisheries is subject to both a TAC regime, limiting landings, and a days-at-sea regime, limiting effort. Depending on which restriction is really limiting the fisheries, different outcomes will be reached.

The EIAA model, in its original form, attempts to calculate what effort is spent by a number of fleets targeting a number of species given fixed TACs. As far as we know, the model is unique in being able to calculate impacts of changes in TAC and quota on all EU fleets whose output is governed by such measures. Thus it was aimed more at forecasting broad trends than precise details of individual fisheries. It assumes that the effort for a given species increases for increasing landings, decreasing biomass and increasing price. The landings are taken to be equal to a given percentage uptake of quota. The biomass is an input. For this exercise these parameters were taken from the LEI-IMARES model, which is biologically driven but calculates economic parameters such as cost and earnings. The EIAA model does not normally handle effort restrictions but some modifications were made for this exercise. Indeed modelling a fishery that was limited by effort restrictions in some years and landing quotas in others was another reason for the difficulties adapting both models for purpose.

The LEI-IMARES model is also a mixed fishery model. The LEI-IMARES model assumes that the fishermen's behaviour cannot influence the ratio of sole to plaice in the catch – it is only a function of their relative abundance. The catch is then determined by the population size, the fleet capacity and the harvest control rule. Once a management limit is reached, the results might however depend on human behaviour. For instance if the plaice quota is filled before the sole quota we have to make some assumptions about discarding.

Some of the differences in model output can be attributed to the fact that effort and catch composition are estimated differently in the two models. The LEI-IMARES model estimates quota uptake according to population abundance and exploitation rate. The EIAA model assumes a quota uptake based on historic values unless the effort required to catch the quota is greater than permitted under the management plan.

In the LEI model catches are a function of F , which is assumed to have a linear relation with effort as days at sea. In the EIAA model catches are a function of days at sea and relative catch rate based on SSB ratios in adjacent years and predicted fluctuations in price.

As for the question raised by STECF on the effect of capacity reduction on fleet economic performance, a model run was undertaken for a 20 percent fleet reduction. While the outcome was an increase in economic performance of the remaining fleet, this result assumes that there are no costs involved in the redistribution of effort and quota and that effort and quota are distributed evenly over the remaining fleet. This is a too simplistic assumption since it is unknown in which form the removed vessel and its related effort and catch opportunities will be redistributed among the remaining fleet.

As for possibilities for relevant fleets to catch fish other than flat fish, the majority of flatfish are caught by beam trawlers. STECF concludes that since the opportunities for other species (TACs) are generally restricted together with the fact that beam trawlers are rather specialised vessels, the possibility to diversify from flat fish to other commercially available species is small. Furthermore, even if diversification of the beam trawl fleet were possible, this would be at the expense of other fleet segments.

As for the differences in economic consequences for different fleet segments this can be attributed to the fact that across the nine fleets there are differences in vessel characteristics (size, engine), crew share calculation, access to fish stocks and fishing grounds and average prices for fish and inputs.

Concerning the applicability of this modelling framework to other case studies, with some collaborative work between biological and economic modelers it would be possible to create the necessary feed back mechanisms such that the weaknesses identified earlier could be satisfactorily addressed. As for the application of this model to another situation, such as the evaluation of Northern Hake Management plan, the current model as such cannot be applied since it has a clear focus on the specificities of the flatfish system. The basic fabric though is applicable to any fisheries management situation.

As for the practical application of the model, since the need for a long term management plan for flat fish has been replaced by the decision to implement a stock recovery plan, no further runs of the current model are envisaged. However, this exercise has proven valuable in developing the methodology.

5.3.1.4 Conclusions and recommendations

STECF concludes that this exercise of elaborating an integrated context for the evaluation of long term management plans has been very valuable in terms of developing a framework and highlighting some of the hurdles that still need to be overcome. Having two different modelling approaches was a useful aid to the critical assessment of assumptions. Convergence of ideas was accelerated when biologists and economists worked together rather than separately. Nevertheless it is clear that incorporating all the feedback between biological analysis and economic analysis needs further development.

A lesson clearly learnt is that the economics of it all influences fishers' behaviour which does have an influence on the stocks hence the biology. This underpins the need for an integrated approach in the evaluation of these sorts of management plans. Bio-economic modelling is not a one way affair.

It is recommended to take the current evaluation framework and to further advance this framework to provide a basis for further developing a methodology of integrated evaluation of long term management plans.

5.3.2 Evaluation of Policy Statement (Harvest Rules)

5.3.2.1 Background and terms of reference to the STECF

The Communication COM(2006) 499 final (Fishing Opportunities for 2007. Policy Statement from the European Commission) sets out the rules that the Commission intended to apply in 2006 in order to make TAC proposals for 2007, based on stock assessments and forecasts provided by ICES and STECF. The rules were established on a policy basis, with a high priority on providing stability for the industry where possible, although the likely long-term consequences of applying such an approach had not been evaluated. The Commission intends to pursue a similar approach for 2008 by preparing a Communication in April 2007 establishing the intended TAC-setting rules. However, the Commission wishes to obtain scientific advice concerning the likely effects of applying such rules, even if this exercise is preliminary in nature. The request for advice covers only those stocks not already subject to long-term plans (for which specific requests for advice have already been made) and also excludes stocks where no analytic assessment is available (as that topic is intractable at present).

STECF should deliver an opinion based on the work of the subgroup SGMOS-07-01 (12-16 March).

In the following, TAC-setting rules are referred to as TAC decision rules (TDR).

5.3.2.2 Terms of reference for the SGMOS-07-01 (12-16 March, 2007) Expert group

The terms of reference of the Subgroup were as follows:

Examine the TAC-setting rules in paragraphs 4.1, 4.2 and 4.3 of the Commission's Communication COM(2006) 499 final (Fishing Opportunities for 2007. Policy Statement from the European Commission), and to advise on the likely long-term (ca. 10-year) consequences, and associated risks for the stocks and the fisheries, in terms of:

- a) The future development of spawning biomass, and associated risks of transgressing biological reference points.

- b) The future development of yield, and associated risks. STECF may provide recommendations concerning the relevant harvest rules in order to improve stability, diminish biological risks, or to increase yields.

STECF is also requested to evaluate the consequences of applying the TAC-setting rule in paragraph 4.6 so far as possible (including planning further work, if necessary). However, the terms of reference for the working group exclude this question (see last paragraph of previous section).

5.3.2.3 Technical background from the Commission services to the Subgroup

In addition, the Commission provided the following guidance.

The comments in this section are intended to assist STECF in its deliberations, but are not intended to be constraining.

The request should be addressed using stochastic simulations of fish stock dynamics simulating stock measurement and assessment procedures and implementation methods (Operating model/ Management procedure approach). Given the large number of fish stocks it is probably not realistic to simulate procedures for each stock individually. Instead, a smaller number of calculations based entirely on simulated data could be used to characterise the risks and benefits of applying the harvest rules in various circumstances. As a baseline, these could include:

3. Simulated population:

- a) Stock- recruit relationship with either a shallow or a steep slope at the origin.
- b) Growth and maturation: Examples based on an early-maturing fish (e.g. herring) and a later-maturing fish (e.g. cod) should be used.
- c) Starting conditions: Four examples should be simulated:
 - i. "well managed" : F close to F_{msy} and B close to B_{msy}
 - ii. "overfished" : F three times F_{msy} and B close to B_{msy}
 - iii. "depleted" : F close to F_{msy} and B one-third of B_{msy}
 - iv. "depleted and overfished" : F three times F_{msy} and B one-third B_{msy} .

Notes :

- a) F_{msy} and B_{msy} are suggested instead of F_{pa} and B_{pa} because the former values can be calculated in a case-independent fashion.
- b) $F_{0.1}$ could be used as a proxy for F_{msy} here)
- c) The "three times – F / one-third in Biomass rule has a non-empirical basis.

4. Implementation Rules

An assumption of a bias in either or both assessment and in implementation at a realistic recent level should be calculated as a robustness test. Overall this schema would provide a minimum of $4 \times 2 \times 2 \times 2 = 32$ simulation scenarios.

The following results should be presented for each scenario: appropriate percentiles (e.g. 5th, 25th, 50th, 75th and 95th.) of fishing mortality relative to F_{msy} and to $F_{0.1}$, biomass relative to B_{msy} , yield relative to yield in the starting conditions, and recruitment levels. STECF is however encouraged to provide a wide-ranging exploration of the issue and to report in appropriate detail.

The advice is requested for 31st March 2007 at the latest, in order to allow for the conclusions to be considered by the Commission when preparing the Policy Statement for the 2008-fishing year.

5.3.2.4 Sub-group results: summary

The **SGMOS** made considerable progress during the meeting in formulating an approach to address the terms of reference. However, it was not possible to complete the evaluation in the time available due to the technical and conceptual difficulties of the task.

The meeting participants were able to describe the three TDRs in sufficient detail to generate the required computer simulation code. This task required considerable discussion and debate to ensure a

common understanding of terminology and intent. Participants also agreed that the three rules could be combined, and with an annual evaluation of population status, the combined rule could be applied for longer-term simulations that covered a spectrum of stock conditions. Simulated fisheries datasets were created that reflected the initial conditions of exploitation and depletion for which the three TDRs were designed. The agreed approach was to select three species 'types' with differing life histories to provide contrast in the simulation testing of the combined rule. In addition, it was decided to use two different stock/recruitment formulations for each species reflecting different levels of recruitment compensation. The model was coded in three different software environments (FLR, AD model builder and Visual Basic) to begin evaluation of the TDRs. Having at least three applications was in principle considered an advantage since it provides a basis for checking algorithm coding. However, owing to shortfalls in model implementations it was not possible to fully address the TOR

The sub-group was not able to include economic evaluations in these simulations. This means, for example, that two management options resulting in the same biological risk but with different economic performance, would be indistinguishable to decision makers and stakeholders.

Additional work is required to fully address the meeting terms of reference. Guidance on the further work required is provided below. A follow-up meeting could be held in September 2007, to complete the evaluation and it is essential to maintain the interest generated by this meeting during an intersessional period in order that adequate preparatory work is completed.

5.3.2.5 STECF comments on the Report of the SGMOS (07-01) subgroup.

It is clear that the SGMOS (07-01) did not achieve its objectives. In view of the initial progress and investment of resources, and given that there is a strategic need for software and skills capable of testing alternative management strategies for future requests made to STECF, there is a good case for a follow up meeting, and STECF is supportive of this.

The single most important, and also likely most demanding, task is to correctly model the level of knowledge (correct simulation of uncertainties) in fisheries. In the assessment model, the most appropriate information to include is that estimated from the simulated data sets. For example, parameter values (like *M*) should not automatically be assumed to be the same in operational model (simulated truth) and in the assessment model, as these are not known in reality either. STECF feels that more work is needed here to get a similar understanding among scientists

In the longer term, there is a need to increase the ease with which results can be understood, not least because stakeholders have an interest in the implications of the results and need to understand them. The conceptual difficulties of using operational models and assessment models at the same time in computer simulations, as well as providing simulation results in probabilistic terms, may create problems for some stakeholders to interpret results as effectively as may be hoped. A lack of clarity and reduced comprehension is not likely to assist 'buy-in' and support for management proposals, which is currently important e.g. in RAC activities. Communication of the concept is not a concern within the WG. However, it can pose a challenge when communicating with a wider audience.

STECF also considers that even more standardization in the use of terms and phrase would be helpful. For example, the word "estimate" has been used both for the values of operational models, and also for the values estimated by the assessment model inside of the simulation loops. More specific wording may be required to avoid misunderstandings. There is clearly a need to use logical words from the outset, and it would also improve the communication in the future meetings. The sub-group report included a list of terminology, but this does not totally cover all aspects of the required terminology.

Age	s	M	W (kg)	m
1	0.4	0.8	0.355	0.01
2	1	0.35	0.819	0.05
3	0.98	0.25	2.09	0.23
4	0.86	0.2	3.976	0.62
5	0.78	0.2	6.203	0.86
6	0.77	0.2	8.309	1
7	0.77	0.2	9.963	1
8	0.76	0.2	11.114	1
9	0.8	0.2	12.454	1
10	0.87	0.2	13.493	1
11	1	0.2	14.07	1
12	0.76	0.2	15.212	1
13	0.76	0.2	17.051	1
14	0.76	0.2	17.986	1
15	0.76	0.2	17.333	1

Even though the work was carried out for only a limited number of stock types ('codoid', 'hakeoid' and 'heroid' and the Fpa was assumed to be half of Fmsy, the differences between the reference point yields and biomasses (Table 3-1) is an interesting example of what kind of catch losses may arise if alternative reference points to Fmsy are followed. It may be valuable if ICES could estimate the benefit gained by following the objective given in the Johannesburg agreement (to reach Bmsy by year 2015) for as wide a range of stocks as possible and include that in its advice to get an estimate of potential gains. It is well understood by STECF that this is an uncertain estimate among all other uncertain estimates provided in fisheries science and very dependent on the S/R model and S/R data applied. Correct ways to estimate the uncertainties (probability distributions) of reference points and corresponding yield and biomass are required here.

5.3.2.6 STECF response to questions raised by the SGMOS (07-01) Subgroup

In the following, STECF comments on some of the outstanding questions posed by SGMOS (where STECF had expertise).

- 1) *How best to ensure accurate and bug-free coding? It may be sensible to generate a known test data set that will be useable across programming environments, and be used for cross-validation.*

It is obvious that, due to the complexity of the modelling, there is a high need to ensure the quality of the software. This should be carried out at least by test data sets and by comparing different model packages. In addition, continuation of international co-operation with experts from outside EU could be helpful and may also help to investigate the sensitivity of the results to the different technical solutions to the simulation process.

During the meeting it was not decided to what extent variability in biological parameters such as weight at age, selectivity at age, maturity, etc. should be included in the simulations. This needs to be determined and stated explicitly.

- 2) *It is of crucial importance to correctly describe all sources of uncertainty in the assessment. All essential variables should have associated probability distributions, which describe the likely future variability. Also the correlations between the variables should be taken into account (like mean weight and selectivity and S/R parameter estimates). Also during the meeting, no implementation uncertainty was included in the testing of the TDRs. A decision is required on whether to include this, for example, how should unreported catch and discards be considered?*

STECF comment: As the TDR tests are made to get a realistic view about assessment uncertainties and management success and their interdependencies, also the implementation error (implementation of management measures) should be included. There is in several cases data available (difference between realized catch and TAC) and consultation with stakeholders may be helpful. Poor implementation implies that a bigger buffer is required against stock decline. The most likely behavior in the cases simulated (the

stocks here were general cases) should be applied, and the sensitivity of management success analyzed by changing assumptions about misreporting and discards. The impact of these factors may be of interest to industry, as well.

- 3) *There is presently an intrinsic two year time lag between data becoming available (up to year y-2) and setting the TAC (in year y). The influence of this time lag should be explored to determine its influence on the behavior of the TDRs.*

STECF agrees that this is a complicated issue and should be investigated. In particular the linking of correct use of real assessment methods to these times lags is likely to be demanding.

- 4) *The different programming environments include simulation strategies that include a formal assessment (such as XSA in the FLR routines) and others that simply simulate the stock assessment process by sampling from the true population (such as the Visual Basic implementation). These can be used to determine how important it is to include an explicit stock assessment model. This is related to whether or not the F and SSB reference points (F_{MSY} , F_{pa} and B_{pa}) are estimated from simulated data in an assessment or are taken as known.*

Theoretically those assessment models should be used, which are also used in reality, to more correctly mimic the likely future success of management scheme. This needs to be thoroughly tested.

- 5) *Finally, the stock-recruitment functional forms need biological reality. If a Ricker is used, the unfished equilibrium SSB should be relatively close to the biomass giving maximum recruitment. In the codoid example, the unfished equilibrium was more than three times the biomass giving maximum recruitment and this caused huge oscillations in behaviour, something never seen and unexpected. Introducing process error into the stock-recruitment function is also a problem. Lognormal errors is assumed but this could be added as a Monte Carlo process, in which case autocorrelation could also be added. Alternatively, observed residuals could be resampled, although with only short time series of data this may not be sufficiently variable.*

STECF comment: It is obvious that the use and choice of S/R model is one of the key assumptions of the simulation tests. There is a need to test the effects of using several potential models, as well as different ways to create randomness to the results. The sampling system applied in simulations (including correct correlation between parameters) must correctly transfer the uncertainty of historical data to the future simulations. Sampling from a Bayesian posterior would be conceptually easy way and it would offer a way to include additional information in the format of priors (like e.g. using the Bothnian Sea S/R data for the Baltic Main Basin herring stock analysis). Due to the fact that S/R relationship is usually the most uncertain part of any stock assessment or management evaluation, this issue needs much more work to be done in EU fisheries.

5.3.2.7 Conclusions

STECF concludes that the subgroup was unable to fully address the TOR in the time available. This seems to have been partly because the appropriate tools were not available before the meeting.

STECF also concludes that good progress was made in describing and coding the TDRs and suggests that the complexity of this task is often underestimated.

STECF underlines the need to include economic impact evaluations to the analyses. CFP legislation requires this, and economic information may help the stakeholders to find acceptable management options more easily. STECF agrees with SGMOS that a follow up meeting would be valuable but stresses that additional progress and the completion of the TORs is only likely to be achieved if adequate intersessional work is undertaken.

5.3.3 Evaluation of closed areas

This item was deferred until the June 2007 Plenary meeting of the STECF when the final report of the Expert Group (SG***) will be available.

5.3.4 Evaluation of the plan for the protection of marine resources around Sardinia.

STECF was requested to comment on ~~review, comment as appropriate and endorse~~ the report prepared by STECF/SGBRE 07-01 (6-8 February 2007) on plans for the Protection of Marine Living Resources in Sardinia. Specifically the sub-group was asked to evaluate the reliability of the plan in terms of the following:

1. diagnosis upon which the plan is based (e.g. status of the resources and evolution of main fishery indexes, evolution of the status of the resources, evolution of fisheries index, etc.);
2. prognosis and expected results (benchmarks, appropriateness of the methodology to evaluate the objectives, reduction in fishing capacity, etc.);
3. congruence of the plan both with the targets (e.g. timeframe, appropriateness of management measures with conservation objectives, effectiveness of proposed measures, etc.) and with ongoing fishing practices as well as with already enforced management measures (e.g. the likely outcomes of the plan can be voided by current fishing practices? etc.);
4. added value to ensure higher conservation of the exploited resources targeted by the plan in order to avoid short term collapse and achieve higher long-term yields and better economic performances of the fleets involved.

5.3.4.1 STECF general comments:

In reviewing the report prepared by STECF/SGBRE 07-01, STECF noted that this was the second meeting dealing with plans for the protection of marine living resources in Sardinia and that the previous STECF/SGBRE report in 2006 had already provided general guidelines for such conservation measures.

STECF also noted that the status of the stocks that existing measures are intended to affect have not shown any sign of improvement since the introduction of the plans in 1988; for most of the stocks, fishing mortality has remained stable or increased during the period of the execution of the plans.

The STECF/SGBRE 07-01 Report contains details of and reference to the plan and associated legislation. STECF notes that the proposed plan is for the period 2006 to 2008, but that legislative instruments for 2006 and 2007 are already in place.

5.3.4.2 STECF specific comments:

- a) **Applicability of plan:** STECF agrees with the judgement of the STECF/SGBRE 07-01 subgroup that the scientific information provided in support of the proposed measures for the 2006-2008 Sardinian Plan (SPAR 2006) is inadequate. The Plan consists, *inter alia*, of a fishing ban included in Decree 14 (September 2006 no. 25/v) as amended. The fishing ban proposal is not supported by any species-specific temporal and/or spatial analysis of recruitment, spawning activity, commercial CPUE or fleet dynamics all of which are considered important in establishing the measurable objectives for the plan. Furthermore, there are inconsistencies between the conclusions contained in the scientific document accompanying the Plan and the measures foreseen in the plan itself.

STECF considers that, as for 2006, the plan lacks appropriate measurable objectives, in terms of targets to achieve (i.e. level of F and SSB, mean size/age of the stock, biodiversity, etc), the time frame for achieving these targets and complementary measures if the objectives are not met (see guiding principle established by the Commission in EC 2792/1999). The objectives of the plan should be clearly defined and a monitoring programme put in place to assess the effect of the closure against agreed performance measures.

- b) **Effectiveness of the plan:** Given that the status of the stocks seem to have shown no sign of recovery since the plans were introduced in 1988, STECF considers that the temporary fishing ban alone is not sufficient and not appropriately designed to ensure the long term sustainability of exploited stocks.
- c) **Long-term profitability of fishery:** STECF was not provided with the necessary information to evaluate and advise on the potential long-term profitability of the fisheries that would be affected by the proposed management plan.
- d) **Alternative analyses:** The proposed Plan for 2007 and onwards is supported only by data for selected species obtained from experimental surveys (GRUND and MEDITS) undertaken between 1994-2005. STECF notes that a time series of data from 1985-2005 is available and recommends that an analysis of trends in the longer time-series be undertaken.

- e) **Use of data:** STECF notes that whereas most of the bottom trawl data provided have been collected through two fishery-independent surveys included in the DCR they represent only a few species. The fishery-dependent data comprised primarily only aggregated species information, which STECF considered unsuitable for a proper evaluation of the proposed plan. Furthermore, no data were presented for species which are mainly caught in the small scale fisheries (artisanal fishery as it is defined in the document) or for the pelagic fisheries (either small or large pelagic species). Data on such species should be available from the DCR, and additional information is available from the Italian national data collection programme (i.e.: CAMPBIOL and CPUE programme) and included in the DCR framework. STECF recommends that such data also be evaluated.
- f) **Geographical range and stock coverage:** Neither the recent legislative acts nor the scientific document provided to the STECF/SGBRE 07-01 Expert Group, take account of the essential fish habitats, previously identified for the Sardinian seas (STECF-SGMED 06-01), as candidates for area closures. STECF further notes that the proposal applies to all vessels registered in Sardinia, and as such, relates to all species caught by Sardinian vessels. However, the assessment data presented in support of the proposal relates only to three species (two mullets, *Mullus barbatus* and *M. surmuletus*, and the red shrimp *Aristaeomorpha foliacea*). While these three species are important, there is clearly insufficient information presented to judge the potential effect of the plan on overall stock assemblages. Taking into account the above observations, STECF considers that information in support of the the plan, as presented, is incomplete both in terms of geographical range and stock coverage.
- g) **Correspondence¹ of measures with plans:** STECF concludes that the measures (temporary fishing ban and permanently closed areas) introduced in 2006 and continued for 2007 implemented in the legislative acts (Sardinia Regional Law 14 April 2006 no.3, Decree 14 September 2006 no. 25/V, Decree 20 September 2006 no.27/V, Decree 13 October 2006 and Decree 27 October 2006 no. 34/V) only partly match with the management measures identified in SPAR (2006). Furthermore, the information presented does not provide enough scientific information to support the measures. The scientific report indicates that vessels from other Regions are fishing in the Sardinian water, but they were not able to assess the impact of these vessels, nor their number or total catch. Therefore the assemblage of the management measures is not supportable on scientific grounds. (SPAR, 2006). Neither the recent legislative acts nor the scientific document provided take into account the essential fish habitats, which have been previously identified for the Sardinian seas (STECF-SGMED 06-01), in order to establish the appropriate closed areas.
- h) **Contribution to reduction in mortality and effort:** STECF concludes that the temporary fishing ban alone is not able to reduce fishing mortality. There has been no significant reduction of the fishing mortality over the last 10 years for any of the species for which data are presented.. In addition Y/R analysis undertaken in 2004, indicated overexploitation of the important stocks such as hake, red shrimp and horned octopus. F_{sq} is estimated to be greater than F_{01} for all species except for red mullet (SPAR 2006). Fishing effort, estimated as number of boats per fishing days at sea, shows a decrease since 1998 in Sardinian waters (STECF-SGBRE 2006). However, this may be misleading since this measure of effort does not take into account changes in the structure of the fleet. SPAR (2006; Fig. 12), shows that there has been an increase of around 100% in the fishing capacity (GRT) of the large vessels and a stable trend for the other components of the fleet. Taking this into consideration, together with any additional technological creep (Rijnsdorp et al., 2006), would suggest that there has been a large increase of the fishing power of the Sardinian fleet during the last decade.
- i) **Relevance of closed areas to stocks:** STECF noted that there is insufficient information, particularly with regard to stock distribution and/or nurseries areas in SPAR 2006, to justify the selection of areas currently closed to fishing. Furthermore, it has not been possible to discern whether the reasons for the selection of the areas for closure are coincident with recruitment and/or spawning grounds or to reduce impact on essential habitats and biodiversity. STECF notes that the implemented closed areas only partially match with the areas detailed in STECF/SGMED 06-01 for red mullet, and there is no overlap with the identified nursery areas for hake. Despite having been implemented since 1990 (Reg. law 7/8/1990, n25), there has been no appropriate evaluation of their impact on the status of fishery resources. Even if the closures might have resulted in reduced exploitation rates and increased catch

¹ "Compliance" in the STECF/SGBRE report.

rates (density) at a localised level, the effects at the stock level are likely to be much less and may in fact be the reverse.

- j) **Effect on operation of fleets:** the absence of information on the spatial distribution of the fishing effort did not permit an STECF evaluation of changes in fleet behaviour as a result of the plans.
- k) **Capacity trends:** The document SPAR 2006; Fig. 12, indicates that there has been a continuous and strong increase in total GRT of Sardinian –registered vessels over 70 GRT, The information provided does not allow STECF to determine whether this is caused by more or larger vessels. There has also been an almost stable trend for vessels with a capacity less than 70 GRT. There is no provision in the plan to alter fleet capacity and whether any observed trends in capacity are as a result of the plans is impossible to discern from the information presented to STECF.
- l) **Impact of no action:** STECF concludes that unless and until the impact of the plans for the protection of marine resources around the island of Sardinia is properly assessed, the impact of removing the provisions of the plans cannot be evaluated.

In general STECF believes that more data is available than was actually used to support the plan. Some of these data have already been used successfully in past evaluations.

5.3.4.3 STECF conclusions and recommendations

STECF concludes that at present, it remains unclear and unknown whether the provisions of the plan for the protection of marine resources in Sardinia (SPAR, 2006) have resulted, or will result, in positive or negative impacts on marine resources. To date, the information presented in support of the plan is largely inappropriate and inadequate to permit a proper impact assessment.

STECF notes that since the implementation of the provisions of the plan in 1988, fishing mortality has increased for some stocks that would be expected to be affected by the plan, and over the past decade at least, capacity of the Sardinian fleet has shown a overall increase. While we are unable to comment on whether the rise in fishing mortality for such stocks or fleet capacity would have been greater or less without its provisions, it is clear that the plan has not been successful in preventing the observed increase in both of these.

STECF also concludes that the provisions of the plan do not take account of the essential fish habitats identified previously (STECF/SGMED 06-01) or at least no reference is made to them. In addition there is a total lack of explicit time-dependent and measurable objectives and no complementary actions when objectives are not achieved (see general guidelines established by the Commission in EC 2792/1999) are proposed.

STECF stresses that all protection plans should follow the general guidelines outlined in EC Reg. 2792/1999, in the STECF report of the 3-7April 2006 plenary session (22nd Report, STECF 06-01) and in STECF/SGBRE (3-7 April 2006, STECF/SGBRE 06-01).

5.3.5 Technical measures in the Baltic

After consulting with the Commission, it was agreed to defer this item until the June 2007 Plenary meeting of the STECF.

5.3.6 Possible modification of the specific reference levels of the fleet segments registered in the French outermost regions with particular attention to tuna fisheries in the Indian ocean.

5.3.6.1 Terms of reference

In the light of current knowledge of the state of stocks and of the deployed fishing effort, as well as on the basis of data submitted by the French authorities and provided to the committee, STECF is requested to advise on:

1. Does the capacity registered in the segments of fleets concerned appear adapted to the potentials of exploited resources in the case of the following fisheries?
 - a. Fisheries to the large pelagic species of the Indian Ocean;

- b. Fisheries to the shrimps of the Guianese continental shelf;
- c. Fisheries to the white snappers and fish of the Guianese continental shelf.

2. Can an increase in capacity be envisaged in each case?

If affirmative, what would be the levels of fishing capacity and fishing effort that the STECF would recommend to ensure a sustainable exploitation of resources and further

5.3.6.2 Large pelagic species

5.3.6.2.1 Management Background:

The Committee notes that the Indian Ocean Tuna Commission (IOTC), in resolution 03/01 (On the limitation of fishing capacity of Contracting Parties and Cooperating on-Contracting Parties) states that Contracting Parties and Cooperating non-Contracting Parties (CPCs) which have more than 50 vessels on the 2003 IOTC Record of Vessels, shall limit in 2004 and following years, the number of their fishing vessels larger than 24 meters length overall (hereafter LSFVs) to the number of its fishing vessels registered in 2003 in the IOTC Record of Vessels, and that this limitation of number of vessels shall be commensurate with the corresponding overall tonnage expressed in GRT (Gross Registered Tonnage) or in GT (Gross Tonnage) and, where vessels are replaced, the overall tonnage shall not be exceeded.

5.3.6.2.2 Current state of resources:

in its most recent advice² for the 4 species³ targeted by the large pelagic fleet of La Réunion [Segment France 4FD] in the Indian Ocean and managed by the Indian Ocean Tuna Commission, STECF has noted the following:

Albacore: The status of this stock remains unknown. Results of the analyses conducted in 2004 were considered unreliable by the IOTC, although one of the results suggested that current catch levels might not be sustainable. Other indicators, such as the average size in the catch and catch rates, have not shown declines in recent years.

Yellowfin: Various assessment methods have been applied and they consistently indicated that fishing mortality rates between 1992 and 2002 have been close to or at levels of F corresponding to the F_{msy} and it is recommended that the fishing effort does not increase in the near future above the 1999-2002 average level.

Bigeye: Regarding the current rapid increase in the catches and the more optimistic results of the 2006 assessment, it was recommended that catches and effort from all gears should not increase further.

Swordfish: The current level of catch is unlikely to be sustainable and any further increase in effort in the Western Indian Ocean (particularly the South West) would increase the risk of over fishing the swordfish stock. Any increase in the catch of, or fishing effort on, swordfish should not be allowed. Furthermore, management measures focussed on controlling and/or reducing effort, especially in the south-west Indian Ocean (*e.g. the fishing zone of La Reunion longliners*) are recommended.

5.3.6.2.3 STECF opinion

The Committee notes that the current (2000 – 2005) total catch of the longline fleet of *La Réunion* (an outermost region where conditions are tougher) amounts to 2,300 tonnes and represents 0.4% of the current total catch for these 4 species taken in the Indian Ocean (by all gears). The development plan proposed foresees the construction of 15 new longliners amounting to 4,500 GT and 11,250 kW: in general terms this represents an increase of 46% in the capacity of the long line fleet.

STECF recognizes the importance of the fisheries sector in this region, and the particular structural, social and economic situation of the Communities outermost regions more generally. Nevertheless, in respect of the resource, STECF concludes that with the possible exception of albacore, the stocks likely to be targeted and caught by any additional long line vessels (yellowfin and bigeye tuna, and swordfish) are already fully exploited or possibly overfished. STECF further concludes that any increase in capacity of *La Réunion's* longline fleet should only be envisaged where it is balanced by a corresponding decrease

² Review of scientific advice for 2007, STECF-SGRST 21-25 October 2006, Sec xxxx

³ Swordfish, and yellowfin, bigeye, and albacore tuna

elsewhere in the overall deployed capacity of the fleets targeting the stocks of tuna and swordfish in the Indian Ocean.

5.3.7 Advice on the possible improvement of the annual report from the Commission to the Council and the European parliament on Member States' efforts to achieve a sustainable balance between fishing capacity and fishing opportunities.

STECF was unable to address this item during the meeting and suggests that it be deferred until the June 2007 Plenary Meeting. If a response on the issue is urgent, a response can be prepared by correspondence, beforehand.

6 FISHERIES ECONOMICS

6.1 ECONOMIC ASSESSMENT OF EU FLEETS (AER)

6.1.1 Question to STECF

STECF should deliver an opinion based on the outcome of the subgroup for economic affairs (SGECA)'s SGECA-07-02 meeting of March 12-16.

6.1.2 STECF opinion on outcome of subgroup meeting

The Commission has called for economic data collection covering the fishery industry in 2005 at two separate occasions. In spite of these efforts it has not been possible so far to produce an AER (Annual Economic Report) nor make any model projections for 2007. The presentation given by Pavel Salz summarizes the situation as follows:

Two positive developments are an increased coverage of economic data due to the DCR and JRC's assumption of responsibility for data handling and communication with Member States.

Unfortunately there are several drawbacks in the process. Firstly there is a problem of timing: there is a one year lag in providing the data. Therefore the data of year 2006 will not be available before the end of the year 2007 and the corresponding economic report could not be prepared before the beginning of 2008.

Producing a completed economic report in the SGECA framework proved impossible. The report was not finalized in the one week meeting and nobody has sufficient resources available to finalise the report. Therefore the publication of the report remains an open issue. In the future analytical tools and the tables of data for the report should be prepared before the meeting.

The database organised by JRC needs to be further developed. The quality of the data should be checked before the meeting. Data should be accessible during the meeting through a user-friendly interface. The 20-day limit for holding data creates problems if the data from all countries is not delivered at the same time.

STECF noted the progress made but regretted the problems encountered regarding data reporting - especially that it was not possible to produce an analysis for some countries' fleets or to derive meaningful conclusions for these countries. The STECF urges the Commission to solve the technical and organizational problems and to intensify the dialogue with the MS in order to have the necessary data in time for analytical purposes.

If data is ready in October the year after the activity year even in a provisional form it would be possible for SGECA to discuss and elaborate conclusions, analysis and forecasts. A prerequisite is that progress is made on the bottlenecks currently encountered, elaborated below.

On the way forward it is proposed to elaborate a comprehensive report for specialists as well as non-specialists. The report should present up-to date information. Data compiled under DCR will always face a time lag of approximately one year. Therefore the DCR data should be supplemented by provisional estimates, regarding the most recent year.

6.1.3 Proposed annual procedure

Preparation of the economic report (and evidently economic assessment) should be regarded as an on-going process and the following phases are suggested:

- Preparation
 - Call for data
 - Quality check and corrections
- Implementation
 - Generation of standard sections of national chapters, regional analysis and EU overview
 - Analysis and up-date for most recent year on basis of additional information
 - Compilation of the report

- Publication (web and hard copy?)
- Dissemination
 - Presentations to ACFA and other Committees
 - Articles in press (national and EU level)
- Evaluation / feedback
 - Consultation with users (Commission, ACFA, other stakeholders)
 - Evaluation and identification of required improvements
- Adjustment
 - Implementation of improvements (analytical tools, presentation of the report, etc.)

In all these phases JRC and SGECA have specific tasks and responsibilities, which need to be agreed by both parties.

At the present stage, several additional actions must be undertaken. These actions and associated time lines are described in the table below. Two time lines are presented to take account of the following:

1. Timeline based on completion of the report in October, to be available for the November meeting of the STECF plenary.
2. Timeline based on actual data availability in the Member States. During the SGECA meeting in March 2007 most MS indicated that their data will be only available between October and December of the following year. In order to present up-to-date data additional measures seem fundamental. The timeline assumes that data will be available in most MS only in December⁴.

Table 6-1 Time Line

TL 1	TL 2	JRC	SGECA
Preparation			
15/7 – 15/8	15/1 – 15/2	Call for data is launched. MS have 20 days to respond.	Development of presentation formats and analytical tools
15/8 – 15/9	14/2 – 15/3	All data is received. Check on quality, completeness, etc. / requests for corrections from MS if necessary. Implementation of designed formats.	National experts support JRC with quality check. Testing formats and tools.
15/9	15/3	Quality check is completed and all data is corrected.	Agreement on analysis to be carried out and presentation of the report.
Implementation			
15/9 - 30/9	15/3 – 30/3	Standard sections of national chapters, regional analysis and EU overview are generated and provided to the appropriate SGECA members.	Interpretation of the data, analysis according to agreed lines, preparation of draft texts. (Specific experts should be appointed responsible for regional analysis and EU overview)
30/9 - 30/10	30/3 – 30/4	Support to SGECA members regarding data provision, etc. SGECA meeting	SGECA meeting – fine tuning of conclusions and analysis of specific topics.
30/10- 15/12	30/4 – 15/6	Report is completed and available, at least digitally. Hard copy publication follows?	Approving test and corrections.
Dissemination			
15/1- 28/2	15/6 – 30/7		Presentations at EU level. Articles in national professional press (e.g. based on a common standard)
Evaluation			

⁴ Some MS have indicated in earlier SGECA meeting that they will even have difficulty to meet the deadline in December. This regards e.g. Germany and France. Situation in Spain is unclear.

TL 1	TL 2	JRC	SGECA
1/3- 30/4	1/8 – 30/9	Definition of requirements for software development.	Consultation with users. Evaluation and definition of improvements.
<i>Adjustment</i>			
1/5 - 30/6	1/10 – 30/11	Implementation of improvements in software, formats, etc.	Implementation of improvements in organization of analysis, etc..

It can be expected that further efficiency improvements can be achieved in medium term. The above table reflects the situation which is likely to prevail in 2007 and 2008. However, even in the long run the availability of the data to allow preparation of the TAC economic impact report in October will remain a problem. Therefore it is necessary to consider two supporting measures:

- Provision of preliminary data on previous year.
- Provision of estimations on on-going year.

Appropriate tools will have to be developed in order to assure consistent approach by all MS. Furthermore, the JRC database will have to be adapted to accept such data. This would allow preparing economic impact study based on provisional data for the STECF spring plenary.

Now that the DCR system is becoming operational it is necessary to address various operational problems as flexibly and as efficiently as possible. STECF notes that under the current system a lot of anomalies encountered in the DCR when it comes to data definition and systematic of data collection, these issues are solved in SGECA meetings. This process proves to be rather ad hoc and time consuming resulting in answers to pressing problems to take a long time to be addressed.

JRC as well as the group of involved researchers requires additional resources to meet these tasks. A possibly appropriate instrument could be a multi-annual framework contract with a consortium of institutes involved in the data collection.

6.1.4 conclusion

STECF recognises the importance of the economic report and regrets that the report will not be published this year. While it provides exclusive information on performance of European fisheries it is also provides information for economic analysis in general. Therefore STECF urges that the proposed steps are followed and the additional resources are provided to ensure production of future reports. STECF supports the idea of a framework contract to fill in the gaps in producing the report. This project could also provide a solution to several issues concerning the anomalies in data definitions encountered in the data collection (see Section 7.2).

7 DATA COLLECTION ISSUES

7.1 REVIEW LIST OF SURVEYS AND PRIORITIES (APPENDIX XIV OF EC REGULATION N° 1581/2004) WITH THEIR PRIORITIES

- 1) *STECF was requested to review, comment on as appropriate and endorse the report prepared by SGRST/SGRN 07-01 (12-16 February 2007), which developed operational prioritisation criteria for surveys at sea in order to compile a list of surveys at sea to be considered for co-funding by the new DCR.*

STECF indicated that surveys for deep-species would not be reviewed at this time since the EC is awaiting advice from ICES on the matter of deep-species surveys before proceeding further. In addition, no discussion of benthic fauna or tagging surveys and eel surveys was required during that meeting.

7.1.1 Terms of reference of subgroup

STECF/SGRN 07/01 were asked to address three terms of reference

- a) Develop operational prioritisation criteria relating to an international dimension, importance of stocks, long term utility for fisheries management and cost efficiency in order to set up a list of surveys at sea to be supported by the new DCR with their priorities;
- b) Compile information on specific ongoing surveys including the updated information with regards to the surveys at sea provided by the Regional Coordination Meetings, the outcomes from the EVARES project, the ICES data quality exercise on demersal surveys, the ICES data quality exercise on demersal surveys;
- c) On the basis of the operational criteria and the information compiled propose a list of surveys by Region (Baltic Sea, North Sea, Northeast Atlantic, Mediterranean waters, Long Distant Fisheries (including the Northwest Atlantic)) with different level of priorities. Periodicity (annual, multi-annual) of the surveys will have to be taken into account and for each survey, objectives and the types of information collected will have to be specified.

7.1.2 Prioritisation criteria

STECF/SGRN reviewed a draft submission from the EC of proposed operational prioritisation criteria. After considerable discussion and revision it was agreed that the following criteria should be applied to both the surveys co-funded by the current DCR and new proposed surveys from the most recent RCMs in order to develop a list of surveys at sea to be considered for co-funding by the new DCR. The full details of the criteria re reproduced below:

1. *Internationally coordinated and harmonised surveys*

The survey should be internationally co-ordinated, which means recommended and planned and quality controlled through an internationally organised steering mechanism from relevant international scientific organisations or appropriate scientific bodies within Regional Fisheries Organisations and implemented accordingly.

2. *Surveys that are designed to inform management decisions by either*

a) **Providing input to assessment for stocks which are managed internationally**

The survey shall provide input to an assessment (e.g. if it provides a significant contribution as a tuning fleet in an analytical assessment for important age groups (for stocks where the assessment uses catch data) or is an important survey in an assessment based only on survey data). The survey may also provide input to assessments by providing required information on biological parameters or by giving information on trends in situations where no analytical assessments are possible

or

b) **Responding to specific management needs for stocks which are managed internationally**

3. Use of the data collected during the surveys; access of data to the scientific community.

The required data from surveys to be co-funded by the Community will have to be accessible to international scientific organisations and appropriate scientific bodies within Regional Fisheries Organisations in accordance to Article 15(3) of the new Council Regulation (see Annex 2) on a time scale and in a format as agreed by the scientific body. Also data should be available to the scientific community in accordance to Article 19 of this new Council Regulation (see Annex 3).

Criteria 1-3 should be fulfilled simultaneously in order for an existing survey to be supported by the new DCR.

For pilot surveys⁵ or significant extension of existing surveys to be co-funded under the DCR the following rules should apply:

1. Input to ecosystem monitoring of fisheries impact on the marine ecosystem according to the data collection regulation provisions normally should be integrated in existing surveys and support could be given to such integration. In cases where this is not possible support could be given to surveys dedicated to this purpose providing they fulfil criteria 1-3.
2. A pilot survey should satisfy criteria 1 and 3. It must also clearly demonstrate its potential value to contribute to stock assessment or a major additional contribution to scientific advice over and above existing sources of information. Such survey should be evaluated against its expected contribution on an appropriate rolling cycle by a peer review committee and endorsed by the STECF.

STECF considers that the 3 criteria provide a suitable way of establishing eligibility for co-funding and that these will enhance the quality of European survey activities. STECF shares the comments made by STECF/SGRN 07-01, underlining that the current situation of many existing surveys could be improved in the near future, according to the new proposed criteria. The requirements will positively encourage good practices including *inter alia* coordination, international review, quality control and data transparency. Ensuring that surveys meet the criteria will require a substantial amount of work to be done either at the EC or at the MS level, together with the international organisations concerned. In respect of point 1, it is likely that this will lead to additional requirements for planning/coordination to cover surveys not presently covered by such processes – there may be additional resource requirements associated with this..

STECF is of the opinion that the criteria do not provide a basis for prioritising eligible surveys. A prioritisation process would be expected to include input from end users including advisory bodies and fishery managers.

STECF considers that the ecosystem approach data needs are implicitly included in point 2 of the proposed criteria. A more detailed consideration of the ecosystem potential of surveys is given in SGRN 06-01.

STECF/SGRN 07-01 decided to examine the 103 identified surveys according to this new proposed criteria by the help of two different sub-groups of experts by geographical areas (A= Mediterranean Sea and North East Atlantic; B= Baltic Sea, North Sea, North East Arctic, North West Atlantic).

The results of this exploratory evaluation work by single survey are shown on table 1 and 2 of the STECF/SGRN 07-01 report and are here summarised on Table 7.1.

Table 7-1 Summary result of the evaluation by STECF/SGRN 07-01 of existing surveys according to the new proposed criteria to be possibly adopted and enclosed in the DCR in 2008.

evaluation	All areas combined	Mediterranean Sea and Northeast Atlantic	Baltic Sea, North Sea, Northeast Arctic, Northwest Atlantic
Fulfil the new criteria	45 (43.7%)	17 (30.4%)	28 (59.6%)
Not in agreement with the new criteria	49 (47.6%)	33 (58.9%)	16 (34.0%)
No sufficient data available	9 (8.7%)	6 (10.7%)	3 (6.4%)
total	103	56	47

⁵ Pilot surveys are considered as those which have not yet been proven to deliver useful information with respect to the DCR.

STECF/SGRN 07-01 emphasized that the reviews were conducted based upon information provided regarding the current status of surveys plans. Therefore, by the time the new DCR will come into effect, there may be instances where surveys will meet the SGRN criteria although at present they do not. Thus, special attention by the Commission to the comments in the review tables is imperative.

STECF, in agreement with STECF/SGRN 07-01, underlines that surveys (either if conducted at the international or national level) play an important role in the advisory process, as tuning indices in assessments, or directly in survey based assessments, as recruitment estimators in catch prognoses or as independent sources of information (abundance distribution, age structures, maturity and growth etc.) as bases for advice. It must be recognized that surveys also provide invaluable information on other issues such as ecosystem, biodiversity, non target species, habitats etc., which cannot be obtained otherwise. However, they are also very expensive and resources to finance surveys are limited. This justifies a frequent evaluation of quality and the usefulness of the surveys in relation to achieving their objectives – particularly in the context of providing information for management decisions. Also where two (or more) surveys provide estimates for one stock, the need for both should be evaluated. Where both surveys have shown the same signal over a prolonged period, there may be scope to rationalise survey effort. However, where the surveys provide contradictory signals the evaluation will have to consider why and what action should be taken.

Therefore, STECF/SGRN 07-01 proposed to establish a procedure which ensures that the surveys, carried out within the DCR, are providing the required information with sufficient quality and are useful for providing advice. Such a procedure would ensure that all surveys would be considered at least once every 5 years based on an evaluation on their performance. It is important that these reviews should cover all uses of the survey, and not be restricted to use in fish stock assessments.

STECF/SGRN 07-01 underlined that different groups would play a role in parts of the procedure. Potential contributors are end-users (for example; STECF, ICES, GFCM, ICCAT, NAFO etc.), stock assessment working groups, and survey planning and coordination groups.

For new or pilot surveys the same criteria would generally apply. Pilot surveys are considered as those which have not yet been proven to deliver useful information with respect to the DCR. But it is also important to have a process to evaluate the potential use of new surveys, particularly the ability to provide information that can be used in advice. Clear guidelines on these and other criteria should be made available prior to any evaluation of the surveys. A flow chart was presented by STECF/SGRN 07-01 to explain the different steps of the future review and evaluation process.

STECF considers that the proposed review and evaluation process is unduly complex and that a more streamlined process involving the existing STECF- SGRN could fulfil this role.

STECF points out that the endorsement process might imply a time delay in properly setting-up a survey proposal and this should be taken into account by the EC, particularly when pilot studies are required to supply new additional data for specific purposes.

STECF/SGRN-07-01 recognised the surveys considered at the meeting for inclusion in the DCR cover only part of the stocks or issues for which STECF provides advice. For a number of stocks the available information is of poor quality (e.g. unreliable data from the commercial fisheries or simply scarce data) or the data are not representative of the stock. For those cases survey information is of prime importance for science-based advice.

STECF/SGRN-07-01 suggested a more proactive approach in defining research needs rather than only evaluating what is available, or what is proposed for DCR funding. In order to obtain a comprehensive overview of the research needs and in particular the gaps in the information needed to provide advice, STECF/SGRN-07-01 proposed to list all issues (for example fish stocks) for which advice is required, together with an inventory of the available sources of information for providing advice and a listing of the sources of information which have or can be used. The overview will identify data rich and data poor situations. The list will be particularly useful to identify data needs and provide an additional criterion for evaluation of data collection proposals including surveys.

STECF endorses the following recommendations to the EC proposed by STECF/SGRN 07-01:

1. ensure a peer review of surveys co-funded within the DCR on an appropriate rolling cycle. This would be to cover all the aims of the survey, delivering information for resource or environmental assessments, advice, and management;
2. identify situations for which survey information, that is important for advice, management or assessment, is presently missing or inadequate;
3. initiate surveys to address the identified data gaps (e.g. by means of call for tenders, or the provision of additional ToRs for existing survey planning groups), in agreement with the outputs of the relevant working groups, either at the EC or international management bodies level.

STECF points out that the recommendation n. 2 should imply an additional STECF/SGRN meeting to be planned in the future, with the participation of representatives of the international scientific bodies concerned. STECF also notes that care will be required in drawing up the list (recommendation 2) such that an unrealistic 'wish-list' of possible surveys is avoided. Generation of the latter is unlikely to be deliverable under recommendation 3 and runs the risk of creating an inefficient and costly process. This further emphasises the need for the development of a well-defined prioritisation process.

Taking into account that for many of the surveys, the new criteria, review process and prioritization requires the co-operation of other scientific or management bodies, STECF suggest that the necessary steps should be taken by the EC to recommend and promote a suitable international forum. While various models for such a forum could be conceived, STECF is of the opinion that the existing STECF SGRN offers a cost effective and robust solution. Furthermore, STECF suggests that representatives of the international scientific bodies concerned should routinely participate in the STECF/SGRN meeting dealing with the survey review and prioritization to ensure effective communication and feedback.. Such a system would also facilitate coordination in the event of member states dropping out of surveys

7.2 REVIEW OF ECONOMIC PARAMETERS UNDER THE DATA COLLECTION REGULATION (NO R(EC) 1639/2001 AND AMENDED BY NO R(EC) 1581/2004)

STECF received a report from the SGECA-07-01 Expert Group meeting on economic parameters collected and reported under the Data Collection Regulation.

7.2.1 Terms of reference

The terms of reference for the expert group were as follows:

1. Evaluate the outcomes of the studies on:
 - a. evaluation of the capital value, investments and capital costs in the fisheries sector
 - b. calculation of labour including full-time equivalent (FTE) in fisheries
 - c. Review of all economic indicators required by the Data Collection Regulation N°1639/2001 amended N°1581/2004 (Appendix XVII and XVIII): problems of interpretation encountered, new indicators to consider; the review is to be made in addition to what have been already agreed.
2. Propose regional length vessel classes for stratification
3. 4. Propose definition of homogeneous methods of calculation of the indicators and common sampling strategies
4. Propose small scale studies on economic issues (added value to the DCR)

7.2.2 STECF opinion

STECF generally supports and endorses the findings of the Expert Group (SGECA-07-01) and draws the following summary conclusions and recommendations.

STECF endorses the conclusion of the SCEGA on labour costs and supports the use of the PIM method as developed and applied by OECD. It was recognized that number of additional studies are required especially in the realm of intangibles, appreciation of fishing rights and the price per unit of capacity.

Concerning the Employment study, STECF endorses the findings and supports the use of the definitions of engaged workers and full-time equivalent employees. SGECA stressed that for (unpaid) family labour and the position of women therein as well as for the employment of foreign labour, additional information is required in order to provide a solid basis for the appreciation of the situation.

STECF supports the subgroup views concerning the economic parameters for new regulation. STECF also endorse the proposition of SGECA that the economic parameters should follow the standard definitions used in structural business statistics and FADN. STECF notes that while the above two studies determined clear definitions for these economic parameters, there are several other parameters that need clear determination. Therefore STECF recognises the need studies to support the DCR and as well as the need to develop appropriate tools for economic analysis. To solve these issues in SGECA meetings have proved rather ad hoc and take long time. Therefore, STECF sees that a proposed framework contract under which the series of small-scale studies could be a solution to the problems encountered. This framework project would allow solving outstanding issues relating to economic data collection and reporting and will provide a solid basis for the timely analysis of data submitted annually by the member states.

STECF also endorses the view and proposals of subgroup on issues concerning length stratification and sampling procedures.

7.3 REVIEW OF 2007 NATIONAL PROGRAMMES

STECF was asked to deliver an opinion based on the outcome of the SGRN-06-04 meeting, which took place November 20-24, 2006. The Chairman of the review Group, Mr Frank Redant presented the main findings and conclusions of the group to the STECF Plenary.

7.3.1 Sub-group meeting

The purpose of the SGRN 06-04 meeting was to:

- 1) Evaluate derogations and non-conformities in the Member States' National Programme Proposals for 2007, based on the report by the External Evaluators,
- 2) Update of the guidelines for the Technical Reports 2006 and National Programmes 2008,
- 3) Evaluate the Pilot Studies submitted by the new Member States, following the SGRN December 2004 recommendations, and
- 4) Follow-up the recommendations from the Liaison Meeting (Brussels, 14-15 Nov. 2006).

In total, 20 National Programmes (NP) were evaluated, viz. Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden and UK. Three of these NP (Greece, Lithuania and Slovenia) had insufficient information to allow proper evaluation and were requested to re-submit.

Detail information on the subgroup findings can be found in **annex XX**

7.3.2 STECF opinion

STECF agreed with the findings and conclusions of SGRN, which are as follows:

- 1) *Evaluate derogations and non-conformities in the Member States' National Programme Proposals for 2007, based on the report by the External Evaluators,*

On landings data from the Mediterranean:

- STECF notes the discrepancies between FAO figures and reported landings figures used for DCR-purposes (calculation of sampling levels).

- STECF suggests that for stock assessment purposes a dedicated database of landings and discard estimates for Mediterranean catches (hosted by JRC) be established. STECF has suggested this before but no action has yet been taken.
- STECF suggests that a FishFrame-like database be set up for Mediterranean fisheries data.

On the scope of the new DCR:

- The new DCR should focus on total removals from fish and shellfish stocks, regardless of their origin (professional or recreational fishers, landings or discards).
- Noting the importance of recreational fisheries to the total removals for some species, the new DCR will need provisions for collecting quantitative information on recreational catches.
- Full access to raw data should be ensured, so that any kind of aggregation or post-stratification, according to any specific data needs of the end-users, remains possible.

On the eel-related sampling programmes:

- Several member states (MS) submitted programme proposals for glass eel surveys, yellow and/or silver eel surveys, or recreational fisheries for eel in inland waters. However, until the situation with regards to the extension of the DCR to include inland waters is clarified, STECF considers that glass eel surveys (including pilot studies) should be included in the revised DCR, while a decision on the inclusion of all studies relating to eel in inland waters should be deferred until there is clarity on the scope of the new DCR.
- STECF notes that none of the proposed glass eel surveys were considered to be eligible under the current DCR for 2007.
- Furthermore, STECF notes that any decision taken on eligibility on inland waters surveys for eel should go along with similar eligibilities on salmon in inland waters.

On the parameter definition for fish processing industry:

- STECF recognises the difficulty of collecting economic data for the fish processing industry.
- For the time being, STECF recommends that MS follow the recommendations of the Workshop on the Processing Industry, held in 2006 (STECF-SGECA, Ispra February 2006). Taking into account that the definitions of several parameters in Appendix XIX of the DCR are not clear, STECF recommends that initiatives be taken to deliver unambiguous information to MS on standardization of the measurement of the parameters.

2) *Update of the guidelines for the Technical Reports 2006 and National Programmes 2008,*

- STECF notes that the new Guidelines contain minor adjustments with regards to NP Proposals, Technical Reports and wording of text dealing with module K (data concerning the processing industry).
- A new section was included on the "follow-up given to SGRN recommendations".
- STECF notes that an agreed new version of the Guidelines was posted on the JRC website in February 2007.

3) *Evaluation of pilot studies*

- Although all new MS were invited to submit proposals for pilot studies on discards (Module E), economic data on fishing fleets (Module J) and economic data on the fish processing industry (Module K), only Malta has used this opportunity. The reports of the Maltese Pilot Studies were generally approved, although SGRN made a number of suggestions concerning improved fleet coverage for discards and improved response rates for economic data.
- Some new MS submitted NP reports together with pilots study reports when they were only obliged to submit reports of Pilot studies. The pilot study reports in some cases were unclear and STECF encourages dialogue to ensure that future pilot study reports are fully informative.

4) *follow-up of the recommendations from the Liaison Meeting (Brussels, 14-15 Nov. 2006).*

On the Workshop on Recreational Fisheries

- STECF notes that Pilot Studies conducted so far have shown that catches by recreational fisheries can be considerable.
- Issues of the impact of recreational fisheries on commercial stocks have suffered from confusion caused by the diverse definitions used for recreational fisheries. STECF concludes that there is a need for harmonization of definitions relating to recreational fisheries and on the objectives for sampling and the parameters needed.
- STECF therefore recommends that a workshop on recreational fisheries be convened under the auspices of the STECF-SGRN, with the following TOR:
 - ✓ Define what is meant by recreational fisheries.
 - ✓ Define the population (recreational fisheries) in conjunction with the population sampled from the professional fisheries, so that the full range of fishing activities is covered, from strictly professional to strictly recreational.
 - ✓ Specify the objectives of sampling recreational fisheries, and what data is needed to meet these objectives.
 - ✓ Review the methodologies applied so far, from the DCR and from previous EU projects.
 - ✓ Advise on agreed sampling methodologies.
 - ✓ Advise on the need for a routine sampling process for data other than catch data.

On the Workshop on the Fish Processing Industry:

- STECF recommends that a workshop be convened with the following TOR:
 - ✓ Specify the objectives of data collection on the fish processing industry in the context of the CFP, and what data are needed to meet these objectives.
 - ✓ Review the data obtained so far under Module K of the DCR and of other publicly available data on the processing industry.
 - ✓ Review practical difficulties in carrying out the requirements under Module K of the DCR and whether there is a need for amendment to provide a better and more transparent framework for data collection.

In addition, STECF stressed the idea to open the workshop to a broader group of people (scientists + people from the industry which could be held in a 2 stage schedule meeting.

On the eligibility criteria for surveys at sea under the new DCR:

- A separate Expert group (SGRST/SGRN 07-01, 12-16 February 2007) was convened specifically to address this issue and the STECF comments on the report of the meeting can be found in section XXX of this report.

7.3.3 Other issues:

STECF recommends that the July 2007 SGRN meeting on the Evaluation of the 2006 Technical Reports be extended by 2 days, to address practical issues related to the implementation of the upcoming new DCR.

STECF notes the concerns of SGRN that facilities for the meeting of the SGRN 06-04 (Brussels, Nov. 2006) were less than ideal. STECF also notes that this is a consequence of the pressure on physical resources to hold meetings within Commission premises in Brussels and that these were the best facilities the STECF secretariat were able to secure at that time.

STECF notes that the procedure on bi-lateral meetings between the MS and the EU on the National Programme Proposals should be clearly stipulated and that all concerned parties should be properly informed. In particular, STECF notes that there is an urgent need for feedback to SGRN on the outcome of the bi-lateral meetings between the MS and the EU on the final content of the National Programmes. After

evaluation by SGRN of the Proposals and the submission of SGRN's comments to the Commission, the programmes are sometimes amended in the bi-lateral meetings between the MS and the EU. As these amendments are not communicated back to SGRN, it is difficult for SGRN to properly evaluate the Technical Reports the following year. Therefore, STECF recommends that clear procedures be established to inform all concerned parties on the matter.

7.4 REVIEW OF DCR - PARAMETERS FOR STOCK ASSESSMENT

7.4.1 Background

An STECF Expert Working Group (SGRN 06-03) was convened to review the parameters required under the Data Collection Regulation N°1639/2001 (DCR) amended by N°1581/2004 for scientific advice on stocks and fisheries (Sections C, D E, F, H and I; Appendix I to XIII, XV and XVI). The Chair of the Review Group, Mr Frank Redant presented the main findings and conclusions of the group to the STECF Plenary. The STECF noted the considerable effort and achievements of the SGRN Expert Group and in general supported its findings. The full report of the Expert Group is given in SEC (2007) ***** **(AND FOR THE REPORT FRONTPIECE) attached at Annex ***)**

7.4.2 STECF opinion

STECF generally endorsed the findings and recommendations of the report and noted the following:

The DCR has been a major step forward with regards to data collection in support of the Common Fisheries Policy, by:

- Consolidating existing data collection schemes.
- Creating the framework for the establishment of new data collection schemes (e.g. discards).
-

However, DCR falls short in providing the general framework for the new, fleet-based approach to fisheries management and hence, a thorough revision of the DCR is required.

STECF notes that the aims of the revised DCR should be to:

- Support new approaches to fisheries management, such as moving from stock-based to fleet- and area-based management.
- Support ecosystem approach to fisheries management.
- Promote a regional dimension to fisheries management.
- Increase quality and validation of data used.
- Improve access to and exchange of data.
- Improve use of the data.
- Integrate entire chain from data collection to stock evaluation in a single framework.
- Promote simplification of the data collection framework.

In addressing the above, STECF concluded that with respect to data needs the following should apply:

The DCR should focus on obtaining reliable estimates of total removals from fish and shellfish stocks, including removals by non-commercial fishers, including recreational and part-time fisheries.

The DCR should be based on defined groupings of species with similar data needs, according to the requirements of the type of evaluation method used (e.g. trend in indices of abundance, length-based and age-based assessment methods, etc.). Such groupings would replace the species appendices, which are in the current DCR.

In general, there is no need for comprehensive sampling for age for all removals but there is a need to ensure that the length compositions of catches by stratum are adequately sampled, which may imply increased sampling for length. Provided adequate and representative samples for catch at length are obtained by sampling stratum, a common age-length-key derived from appropriately-combined strata will suffice.

With respect to the ecosystem approach, valuable additional information can be collected without major changes to existing observer programmes and research surveys, and the collection of catch and ecosystem information can readily be integrated in a single framework.

Access to VMS data at an appropriate resolution is an absolute necessity for the scientific evaluation of spatial management measures and ecosystem effects of fishing.

A revised DCR should be sufficiently flexible to meet changing data needs and specific *ad hoc* requirements by the end-users of DCR-data, without having to revise the entire DCR. Therefore, it is essential that all DCR-data are stored in raw format, so that data aggregation and reporting in accordance with the changing needs of the end-users remains possible.

STECF also noted that there are no requirements for data collection under the present DCR for salmon or eel in inland waters. Furthermore, there is as yet, no provision for a possible DCR for the Black Sea.

7.4.3 SGRN proposal on sampling population and its stratification

SGRN recommends that the revised DCR should aim to address all removals from fish and shellfish stocks, regardless of their origin. The sampling population for the collection of fishery-related data thus should comprise all fishing activities that cause such removals.

However, for setting up data collection programmes, the above description is too general and it will be necessary to sub-divide the sampling population into workable, operational strata. The approach proposed by the SGRN is to group fishing operations into strata with identical features in terms of gear type, target assemblage and selective properties of the gear used, i.e stratification by métier. Métiers attempt to harmonise the clustering of fishing operations at the regional level.

The SGRN proposal advocates a common hierarchical classification of the regional métiers matrices with the following structure:

- Level 1: Distinction between active fishing vessels, fishing vessels involved in other activities than fishing and inactive vessels.
- Level 2: Gear class.
- Level 3: Gear group.
- Level 4: Gear type (FAO classification).
- Level 5: Target assemblage (e.g. Crustaceans, small pelagics, etc., but also mixed assemblages, e.g. mixed Crustaceans and demersal fish, mixed pelagic and demersal fish, etc.).
- Level 6: Mesh size and other selective devices.

In addition, métier matrices also have additional strata defined by overall length class of vessel (LOA class), viz. < 6, 6-10, 10-12, 12-15, 15-18, 18-24, 24-40 and > 40 m.

The proposed métier matrix is illustrated in Table 7-2. It is important to note that métier matrices should not be seen as a means to produce data sets that can directly be fed into the evaluation and management process, but as a means to harmonise data collection according to internationally agreed strata.

Table 7-2 Example of a métier matrix (in this case for the NAFO area) proposed by the SGRN

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes								
Activity	Gear classes	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 6	6-10	10-12	12-15	15-18	18-24	24-40	> 40	
Fishing activity	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Crustaceans	(a)									
				Demersal fish	(a)									
				Mixed crustaceans and demersal fish	(a)									
				Deep-water species	(a)									
				Mixed pelagic and demersal fish	(a)									
			Mixed demersal and deep-water species	(a)										
			Multi-rig otter trawl [OTT]	Crustaceans	(a)									
				Demersal fish	(a)									
				Deep-water species	(a)									
				Demersal fish	(a)									
	Small pelagic fish	(a)												
	Pelagic trawls	Longlines	Midwater otter trawl [OTM]	Drifting longlines [LLD]	Large pelagic fish	(a)								
						(a)								
	Hooks and Lines													
	Misc. (Specify)		Misc. (Specify)											
Other activity than fishing					Other activity than fishing									
Inactive					Inactive									

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

The detailed proposals for which data should be collected using this approach are given in the report of the SGRN (Reference – or Annex I) whichever is appropriate.

STECF agrees that the proposal to use a metier matrix approach to the collection of fisheries related data under a revised DCR is conceptually good and if it can be implemented effectively it would be an improvement on the present DCR. Furthermore, since the data are collected by metier they would be appropriate for undertaking mixed fishery evaluations and on advising on fishery-based management proposals. There may be implementation difficulties however, and because of resource implications, it is possible that the amount and quality of the data collected may be compromised, thereby reducing their utility.

Furthermore, STECF suggests that collection of appropriate fishery-related data may be better achieved with buy-in from the catching sector and other stakeholders. An approach to deciding on the level of aggregation of sampling under a revised DCR should include appropriate relevant stakeholders. RACs should be consulted on how a metier approach to data collection could be tailored to ensure fisheries are adequately sampled. STECF recommends that such an approach be considered further and that RACs should be consulted for their opinion on the issue.

STECF notes that in order to effectively implement the proposals from the SGRN, there is a need to modify other existing EU-Regulations. The Regulations concerned are as follows:

- Logbook Regulation.
- Other Regulations governing the collection and transmission of effort and landings data.
- VMS Regulation.

The proposed modifications and their rationale are given in the SGRN report and are not repeated here. STECF agrees that the proposals should be seriously considered in order that some key data parameters required for assessment and management purposes are mandatory.

7.4.4 Data coordination for ICES /STECF

As part of the process to encourage dialogue and co-operation between ICES and STECF, The Chairman of ICES' ACFM Martin Pastoors was invited to the STECF Plenary. He presented a proposal for enhanced co-ordination and exchange of data between the two Committees.

STECF recognizes and concurs with the view that STECF and ICES have a joint interest in assuring quality of data. Presently much of the data supplied and used to both bodies are provided by the same research institutes and the data are used to address similar types of question, although the timescale for response may differ. The quality of advice is highly dependent on data quantity and quality and the clients for the advice are similar. Both ICES and STECF are committed to providing transparent advice that is open to external scrutiny. Hence we conclude that there is a need for enhanced exchange and access of common datasets by both communities.

Presently provision and checking of data submitted to ICES and STECF is in a state of "organised inefficiency". Quality control is difficult to organize and there are sometimes inconsistencies between results obtained by ICES and STECF (e.g. discards raising). Furthermore there is a general lack of transparency in the process.

To proceed with this initiative, there are many obstacles to overcome and details to be addressed. The type of data required needs to be properly specified and held in appropriate databases. There is also a need to achieve a balance between complexity and adequacy and for defining a common exchange format. Data access needs to be decided upon and there are serious resource implications for setting up and maintaining the data. There is also a need to ensure that co-operation between ICES and STECF in the field of stock and fisheries data is full consistent with the provisions regarding the revised DCR. The success of a unified approach is dependent on accurate and complete submissions from each contributing party.

Taking into account the above and in recognition of

1. the huge efforts necessary and deployed by the scientific sub-groups of both ICES and STECF regarding the necessary data compilations from the Member States resources and
2. the potential gain in efficiency and data quality required for their commitments as well as the ever increasing requests for fish stocks and fisheries based advice

STECF recommends that a joint ICES and STECF expert group be convened to

1. identify the data requirements for fish stock and fisheries assessments (parameters) of both ICES and STECF working groups. The parameters should be identified together with their appropriate units.
2. identify the legal frameworks within ICES and STECF to gather, store and distribute the required data and advise on their appropriateness.
3. identify the overlapping and the specific data requirements (parameters) of the ICES and STECF working groups and evaluate the potential for gaining efficiency in sharing joint data bases and evaluation modules.
4. advise on appropriate time scheduling, techniques and logistics for data calls.
5. advise on the resources required for holding, updating and quality control of joint databases (work hours by task, durables and consumables).

The expert group should be attended by members of the secretariats of both ICES and STECF.

7.5 MACKEREL. IMPLICATIONS OF CEFAS WITHDRAWAL FROM EGG-PRODUCTION SURVEY IN THE WESTERN AND SOUTHERN SPAWNING AREAS OF MACKEREL AND HORSE MACKEREL.

7.5.1 Background.

The CEFAS egg production survey has contributed significantly to the internationally co-ordinated mackerel and horse mackerel egg survey, the purpose of which is to obtain fishery-independent data for tuning of assessment inputs as well as separate estimates of SSB for the stocks of Mackerel and Horse Mackerel.

These egg surveys are conducted every 3-year, covering the major (western and southern) spawning areas of Mackerel and Horse Mackerel. For the western area these surveys begun in 1977, and the southern areas have been covered since 1989. At present the countries participating in this internationally coordinated survey are: Norway, Portugal, Spain, Germany, Netherlands, Ireland, Scotland and England (until 2004). This survey is listed among the priority 1 surveys in the DCR.

7.5.2 Reasons for withdrawal.

CEFAS, UK (England) has withdrawn from the International Mackerel and horse mackerel egg survey from 2007. The CEFAS has justified its withdrawal from this survey with England's decreasing commercial interest in the Mackerel fishery, and that

7.5.3 Implications

The loss of the CEFAS (UK – ENG) survey means that survey coverage in April and May is much reduced. According to ICES, the withdrawal of CEFAS from these surveys will create a loss, both in the amount of total survey data and in expertise in histological analyses. In addition CEFAS will no longer provide adult (mature) mackerel in the start of the spawning season for fecundity estimates. ICES also states, that the impact of this withdrawal will decrease the accuracy of the survey data.

7.5.4 STECF comments.

It is noted that the International mackerel and horse mackerel survey is a 'priority 1' survey in the DCR list. Concerning the accuracy of the estimates due to loss of data from one survey, STECF cannot evaluate whether this will be seriously affected. Such an evaluation requires data analyses and estimations on basis of data prior to 2007 with and without inclusion of the CEFAS data.

STECF notes the concern expressed by ICES on the consequences of the withdrawal of the CEFAS survey for the accuracy of the survey data. However, STECF has been informed that FRS, UK (Scotland) has planned an additional survey in 2007, thus conducting a total of 3 egg surveys in 2007, the first of these surveys also sampled adult mackerel. STECF was also informed that CEFAS will continue to carry out the staging (identification of development stage) of the eggs in samples from the other (?) surveys.

STECF considers that these new activities are likely to compensate for the loss of the CEFAS survey,

7.6 MANAGEMENT OF THE DATA BASE BUILT BY THE STECF SGRST WG IN THE CONTEXT OF ANNEXE II TO R(EC) NO 41/2007

The Commission expressed a wish to define more precisely the processes associated with the call for data by the chairman of STECF SGRST WG in advance of the meeting at which effort, landings and discard data are compiled. The motivation for this was to avoid recent problems with data acquisition and to facilitate work progress. Three particular issues were raised for discussion as follows:

7.6.1 Formal call for data from MS

STECF was of the view that adequate time for extraction and submission of data should be allowed and that the data call should be standardised and treated as routine. It was felt that for regular meetings of this type, member states should be advised as early as possible of the timeline leading up to the meeting and that by using standardised queries the member state's work could be simplified and accelerated. Given that around 70% of the STECF work programme is known by November in the previous year, it should be possible to meet the requirement for early warning. In respect of Commission data calls under the DCR, STECF was of the opinion that the current legal framework of 20 days to supply data and 20 days for holding data (before it is destroyed) is unhelpful, inefficient and should be removed.

It was felt that the current technical arrangements for circulating the call was adequate and was not responsible for the difficulties encountered.

7.6.2 Format of the spreadsheet and codes to be used in the future for species, MS, fishing areas to ensure consistency with other data bases

STECF considers that the current web based system adopted by JRC for uploading data requested during calls, offers an efficient way forward for STECF SGRST. The system provides detail on required data types and formats and includes built-in checking systems which identify and highlight incorrect data type entries etc. STECF felt that while such a system should streamline the data provision process there was nevertheless a need for experts to review the content of the database. STECF recommends that a short data coordination meeting of Four working days, should be held to provide comment on data quality issues and anomalies and to identify inconsistencies and problems before the data reach end users.

7.6.3 Legal framework and legal responsibility for the filing, management, access rights, consultation extraction and transmission for such a data base.

STECF concluded that the call relating to STECF SGRST WG was not presently covered by a formal legal framework. At present there is uncertainty about the legal basis of the call and the status of the database and it seems unlikely in the short term that this will change. It is the case, however, that without a complete database and submission by all member states, STECF is unable to adequately complete its task and this impairs the ability of the Commission to deal with the business of the CFP. This is to the detriment of all. For the future STECF suggests that the requirement on member states (Annex II of R(CE) No 41/2007) to supply effort data to the Commission for fishery management purposes might provide such a framework – the format in this requirement is similar to that of the STECF SGRST call. It is also possible that the issue could be resolved in the legal framework of the future revised DCR. Again, STECF recommends that any such provision avoids the 20 day submission/destruction rule which is considered inappropriate, and would impair the ongoing utility and value of the STECF SGRST database.

8 OTHER ISSUES

8.1 STECF PARTICIPATION IN THE ADVISORY COMMITTEE FOR FISHERIES AND AQUACULTURE (ACFA)

Every year ACFA organises 12 meetings, respectively by 4 fields : fisheries resources, aquaculture, markets, general questions. Since 2001 STECF has been represented on the ACFA by either Michael Keatinge and/or Yves Perraudeau (economist and coordinator for the actions of Scientific Committee within ACFA).

Since the 23rd plenary session of the STECF (6-10 November 2006) the STECF members have attended the following 6 Working Groups meetings of the ACFA :

14 November 2006, WG 2 (aquaculture)
31 January 2007, WG 1 (resources)
15 February 2007, WG 3 (markets)
1 March 2007, WG 4 (general affairs)
13 March 2007, WG 2 (aquaculture)
25 April 2007, WG 1 (resources)

8.2 PRESENTATION OF THE AQUARING PROJECT (EC E-CONTENTPLUS PROGRAMME)

Dr. Di Natale made a short presentation of the new semantic portal for the aquatic world which will be established within the Aquaring project. The portal will be a new advanced tool to disseminate and make available files to the public at large. This will give a possibility to scientists and to scientific bodies to reach a larger number of possible users and could be a good opportunity to make more available even the STECF documents, enhancing their availability for everybody.

This new tool is based also on a metafile structure that will be circulated to scientist and JRC with the goal to make all the information and texts easy to detect and find. The portal should improve even the EC capacity to better use the already existing documents and to more quickly find the information.