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COMMISSION STAFF WORKING PAPER
25th REPORT OF
THE SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES
(Summer Plenary Meeting)

Ispra, 18-22 June 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

STECF met at the Casa Don Guanella in Barza d'Ispra (Italy) from 18 to 22 June 2007.

The Chairman of the STECF, Dr John Casey, opened the plenary session at 14:00.

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 16:00h on 22 June.

2 LIST OF PARTICIPANTS

Members of the STECF:

Bertignac, Michel
Casey, John (Chair, rapporteur)
Di Natale, Antonio (Vice-chair)
Farina, Antonio Celso
Keatinge, Michael
Petrakis, George (Rapporteur)
Polet, Hans (Rapporteur)
Raetz, Hans-Joachim (Rapporteur)
Vanhee, Willy (Rapporteur)
Van Hoof, Luc (Rapporteur)

Invited experts

Andersen, Jesper Levring
Bailey, Nick
Grehan, Anthony- part time (Rapporteur)
Jardim, Ernesto- part time (Rapporteur)
Kirkegaard, Eskild
Mac Mullen, Philip – part time
Kraak, Sarah
Reid, David – part time (Rapporteur)

European Commission DG-FISHERIES AND MARITIME AFFAIRS

Biagi, Franco

European Commission DG-JOINT RESEARCH CENTRE (JRC)

Dörner, Hendrik

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.

1. Information from the Commission and 2007 planning

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

2. Fisheries Conservation

a. Assessment of effort regime

The chairman (Raetz) of the meeting will report on the outcome of the subgroup SGRST-07-02 for the information of the STECF. STECF should not deliver an opinion based on the work done by this subgroup since there will be single report summarizing work and results of SGRST-07-02 and SGRT-07-04 (24-28 September, Ispra). STECF will deliver an opinion in its November plenary meeting.

Meeting web site: http://stecf.jrc.cec.eu.int/event.php?id=82

b. Northern hake long-term management plans

A STECF subgroup had the tasks to (1) determine a measure of fishing mortality corresponding to exploitation of the northern stocks of hake at maximum sustainable yield (=Fmsy) and to (2) Establish by simulation the comparative benefits of gradually changing the current level of fishing mortality on northern hake to Fmsy in steps of (a) 5% per year (b) 10% per year (c) 15%per year. The measures should be calculated in comparison with setting TACs at a level corresponding to Fpa.

STECF should deliver an opinion based on the work of the subgroup SGBRE-07-03 (4-8 June)), including the first phase of the economic impact analysis.

Meeting web site: http://stecf.jrc.cec.eu.int/event.php?id=83 The meeting report should be available shortly before the STECF June plenary.

c. 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 are 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.

Meeting web site: http://stecf.jrc.cec.eu.int/event.php?id=75.

d. Review of stocks

STECF should deliver an opinion based on the work done by subgroup SGRST-07-03 (11-15 June).

The subgroup was requested to evaluate and comment as appropriate on the 2007 ACFM spring advice for several stocks exploited by European Community fishing fleets. These included the following:

1. All North sea demersal stocks;

2. Baltic stocks: cod, herring, sprat; salmon;

3. Barents and Norwegian seas stocks;

4. Iceland and Greenland stocks;

5. Faroese stocks;

6. Celtic sea herring stock;

7. North sea herring stock;

The subgroup was requested, in particular, to pinpoint possible inconsistencies, if any, between the assessment and the ACFM advice.

Meeting web site: http://stecf.jrc.cec.eu.int/event.php?id=84

e. Main factors affecting codend selectivity

The Commission is in the process of revising the technical measures in the North-East Atlantic. In order to simplify the technical measures the Commission wishes to focus the new technical rules on the main parameters which affect codend selectivity and to give less attention to the others. As part of this exercise, an evaluation of certain technical provisions established to improve codend selectivity is required, especially those on mesh size, codend circumference and twine diameter.

SGMOS-07-06 (11-15 June, Aberdeen) was requested to (1) assess the influence on codend selectivity of mesh size, codend circumference as measured in maximum number of meshes round and twine materiel for different weights of catch, and to (2) advice on which constructive elements, which results less relevant for the selectivity of a certain type of trawl net, could be ignored while emphasizing those constructive elements that need greater attention and need to be tackle in a legislation aiming to effectively improve codend selectivity.

Meeting web site: http://stecf.jrc.cec.eu.int/event.php?id=100

STECF should deliver an opinion based on the work done by subgroup.

f. North Sea plaice and sole

1) STECF is requested to evaluate the TACs for North Sea plaice and North Sea sole that would be consistent with the following rule:

TACs should be set at the higher value of

That TAC whose application will result in a 10% reduction in fishing mortality rate in 2008 compared with the fishing mortality rate estimated for 2007, and

That TAC which corresponds to a fishing mortality rate of 0.3 on ages 2-6 for plaice, or 0.2 on ages 2-6 for sole.

However, the TACs may not change by more than 15 % from 2007 to 2008.

2) STECF is requested to report on the annual level of fishing effort deployed by vessels catching plaice and sole in the North Sea, and to report on the types of fishing gear used in such fisheries.

3) STECF is requested to provide a forecast of the maximum level of fishing effort necessary to take the EC shares of the TACs of plaice and sole in 2008.

For the purpose of this calculation, the EC share of the plaice TAC should be assumed to be 93% and that for sole should be assumed to be 100% (the definitive figures, after transfers, will only be known at the conclusion of the Norway bilateral agreement in December).

The evaluation should be made having regard to the other relevant regulations and conditions under which the quotas may be fished, including the provisions concerning the technical measures, minimum landing sizes and quota management measures.

g. Anchovy Bay of Biscay

The scientific advice for anchovy fishery in the Bay of Biscay provided by ICES-ACFM in October 2006 was to remain closed

and should be considered for opening if the acoustic and egg surveys to be carried out in May-June 2007 demonstrate a strong 2006 recruitment.

Furthermore, the STECF plenary in 2006 recommended a zero TAC for the first half of the year and a possible re-opening of the fishery based on minimum spawning stock biomass level (Blim) set up at 21,000 tones. Should the results of the spring surveys indicate a lower level, the fishery should remain closed for the rest of the year. In case the SSB is greater, then the fishery could be re-opened with a new TAC level to be calculated based on simulations.

A subgroup which will work parallel to the STECF plenary is asked to address the following Terms of Reference:

1. Assess the spawning stock biomass on the basis of the 2007 spring acoustic and DEPM surveys in the Bay of Biscay. Calculate maximum allowable catches for the second half of 2007 and first half of 2008 as a function of the spawning stock biomass estimated in May 2007 and in case of low future recruitment (at different percentiles of the historical available estimates) and under the condition that the fishery would allow a spawning biomass at Bpa in 2008.

2. Evaluate and comment on whether there is a relationship between the recruitment abundance index estimated through the acoustic and fishing surveys carried out in autumn 2006 and first semester 2007 and the abundance of age class 1.

3. Provide estimates of overall catches and catch rates by fishing gear and country on the basis of the results of the experimental fisheries undertaken during the first semester 2007. A comparison among years of catch statistics during the same fishing period would be advisable.

STECF is requested to deliver its opinion on the subgroup's work and advice on fishing opportunities as soon as possible and anyhow before 30 June.

h. North Sea Norway pout and sprat

STECF is requested to give its advice on fishing opportunities for Norway pout and sprat in the North Sea.

i. Herring and sprat in the Baltic Sea

STECF is requested to advise on proxies for Fmsy for pelagic stocks in the Baltic Sea.

3. Bioeconomic issues

a. Balance between capacity and exploitation

Advice on the further development of the Member States' and Commission annual reports governed by Article 14 of the Basic Regulation n° 2371/2002 and 12, 13 of the Implementing Regulation n° 1438/2003

1. Background

The annual Commission report on Member States' efforts to achieve a sustainable balance between fishing capacity and fishing opportunities emanates from the annual reports on the results of the Multi-Annual Guidance Programmes (MAGP), the last of which was published for the year 2002. Since 2003 there are no more capacity targets set for fishing fleet segments per Member State. The various capacity targets have essentially been replaced by the introduction of two principles, the entry/exit regime and the capacity reduction resulting indirectly from effort reduction regimes in the context of multi-annual recovery and management plans.

The new reporting format is based on Art. 11 and 14 of the Basic Regulation 2371/02. It is the primary publicly available reference concerning the development of the Community fishing fleet capacity in the light of Member States' efforts to achieve a balance of fishing capacity with fishing opportunities, as requested by the Basic Regulation.

The Member States' reports and, as a result thereof, the Commission report are structured along the topics stipulated by Art. 14 of Implementing Regulation 1438/2003, namely:

– Description of the fleets in relation to the state of fisheries

– Impact of effort reduction schemes on capacity

– Compliance with the entry-exit regime and with levels of reference

– Strengths and weaknesses of the fleet management system; administrative procedures.

Due to practical difficulties and despite some exceptions, most Member States' reports have concentrated on the factual description of their fishing fleet segments and the assessment of compliance with the capacity management provisions established by Community law. Although this aspect is important and needs to be kept in the reporting, the Commission would like to improve the qualitative assessment of the size of the fleet. This should be done by an improved and more harmonised data basis for the report element "Description of the fleets in relation to the state of fisheries", also linked to the element "Impact of effort reduction schemes on capacity", thus allowing for a better evaluation of the balance between fishing opportunities and capacity.

STECF commented on the Commission fleet capacity report for 2005 that further efforts should be undertaken to establish a clearer correlation between fishing capacity and available fish stocks, preferably based on some guidance on the report's structure. It suggested that biological reference points should be used as indicators, complemented by economic indicators such as capacity utilisation and profitability. The Commission agrees that a qualitative assessment of the relationship between fleet size and fishing opportunity needs to be based on both biologic and economic data. While it seems obvious that a full assessment of the status of stocks available to the fleet segments, based either on ICES advice or on scientific committee of a Regional Fisheries Management Organization, would go far beyond the scope of the reports, there are biologic and economic data available, through the

Data Collection Regulation, which have not been fully exploited. The better exploitation of this data for the analysis of the balance between fishing capacity and fishing opportunities would be in line with parallel efforts in the much broader context of indicator-setting for the ecosystem approach of the new CFP.

Concerning the fleet segmentation used in the Member States' annual reports, the Commission has already launched a discussion with Member States aiming at a reduced number of categories that would allow for aggregation at the regional level or at Community level. This discussion will be carried forward in awareness of the forthcoming fleets-fisheries based approach which shall be at the bottom of the data collection framework from 2008 and onwards.

2. The way forward

a. Regarding the content of the Annual reports

Currently, the fleet segmentation at Member State level is not uniform. Some Member States continue to base it upon the segmentation developed under the MAGP; others use adapted or wholly independent classifications. The Community fleet register only provides a very rough segmentation concerning the vessels' areas of operation (mainland fleet, outermost regions, and aquaculture), however it is combined with additional information on the main and second gear. One area of improvement could be the development of roughly sketched major fleet segments linked to areas of operation and gears/types of species caught, allowing for aggregation at Community level. The criteria should ideally be compatible with the fleets-fisheries based approach used within the reform of the Data Collection Regulation.

Another area of improvement could consist of reinforcing Member States' reporting by information obtained from data collected under the Data Collection Regulation. A qualitative assessment of the relationship between fleet size and fishing opportunity needs to be based on biological and economic data. A rigorously small number of parameters from the DCR should be identified that are both pertinent to the question, simple and, concerning data quality, reliable. If successful, corresponding data collated from a data collection exercise could become the starting point for a time series of data collected as standardised indications for the development of the balance between main fleet segments and the productiveness of their fishing grounds.

The need to include general standardised biological information, which would not be available under the Data Collection Regulation, shall also be assessed, e.g. difference between fishing mortality rates observed and ICES recommended fishing mortality rates in commercially most important stocks, or short summaries of ICES advice concerning trends in certain fisheries.

b. Regarding procedure

Concerning the fleet segmentation used in the annual reports, the Commission intends to come up with suggestions to Member States, in particular with the aim to find the right point of aggregation allowing straightforward comparisons between segment capacity and status of the main stocks affected by each segment.

Concerning the identification of economic and biologic parameters accompanying the Member States' reporting, the STECF was asked for its April plenary to give advice on the further development. Due to time constraints, this was not possible. Therefore, STECF is now kindly asked for its opinion during its June plenary on the way forward concerning the selection of indicators to be retained for the balance between fishing capacity and fishing opportunities. The set of parameters should allow for the introduction of appropriate qualifications within the assessment of the correspondence between capacity and available resources.

Following the selection of economic and biological parameters, a data collection exercise, vis-à-vis Member States, could be envisaged for late summer, so that after quality checks the data provided by Member States would be available as an information base for the Member States' annual reports on 2007, due in April 2008. This exercise would be coordinated by the JRC.

If this is considered successful, it could be developed into a regular exercise. Success will be measured against pertinence of the data for the pivotal question, swift usability of the data for the reporting scope and format, and Member States' readiness to draw a link between the data provided and their reporting obligation.

3. Terms of Reference

Stecf would be kindly asked to

– render its opinion on the new approach to further improve the Commission fleet capacity report,

– to propose a small number of numerical indicators relevant for the analysis of the balance between fishing capacity and fishing opportunities which should be accessible via data collection under the Data Collection Regulation, and

– where deemed necessary, to advise on additional standard information indispensable for a comprehensive description of that balance and not accessible via data collection under the Data Collection Regulation.

References

1) Annual Reports

1. Article 14 of Regulation 2371/02

2. Articles 12 and 13 of Regulation 1438/2003

3. Report of the Group of Independent Experts to Advise the European Commission on the Fourth Generation of Multi-Annual Guidance Programmes (Report "Lassen"), 1996

4. Report from the Commission to the Council, Preparation for a mid term review the multi-annual guidance programmes, COM(2000)272 final

5. Annual Reports 2004 and 2005 from the Commission on Member States' efforts to achieve a sustainable balance between fishing capacity and fishing opportunities, COM(2005)691 and COM(2006)872

6. Stecf reviews of the Commission Annual Reports 2004 and 2005 (latest review plenary meeting Ispra 6-10 November 2006).

2) Development of the DCR and fleets-fisheries based approach

1. Commission Staff Working Paper: Report of the Ad Hoc Meeting of the independents experts on Fleet-Fishery based sampling, Nantes, France, 23-27 May 2005, 34 p.

2. Commission Staff Working Paper: Report of the training Workshop on Fleet-based Approach, Nantes, France, 13-17 March 2006, 31p.

3. Commission Staff Working Paper: Report of the Ad Hoc Meeting of the independents experts on the Fleet-Fishery based sampling, Nantes, France, 12-16 June 2006, 98 p.

4. SGECA-report, Meeting on Data Collection Commission Regulation N°1543/2000, N°1639/2001, N°1581/2004 15 – 19 January 2007, Salerno, 21 p.

3) Development of indicators for the CFP in the wider context of the environmental integration process

1. STECF-SGRN-06-01: Report on Data Collection Review, Brussels 19-23 June 2006

2. INDENT Project, Interim Report 2005, Tender Reference FISH/2004/12.

4. Technical measures in the Baltic Sea

The Commission shall, on the basis of advice from the STECF, present to the Council not later than September 2007 an assessment of the selectivity on cod of active gears for which cod is recognised as target species.

Only the BACOMA and T90 trawl nets are authorized to fish for cod.

The issue is to check whether any updated information with respect to their selectivity is available and to evaluate whether both nets ensure a high and proper selectivity or if for example the T90 may reduce its selectivity in time.

MSs had different opinions on the most appropriate nets and they "engaged" to promote selectivity monitoring to have a more correct view of the matter. STECF will not deal with the issue in the Spring Plenary but it will be dealt with in June.

5. Other matters

4 INFORMATION FROM THE COMMISSION AND 2007 PLANNING

4.1 STECF APPOINTMENT

The appointment of the new STECF, which was expected to be completed before the plenary session of June, has not yet been finalised. Some scientists, which are on the AMI list of eligible experts and that had been identified as suitable candidates for the STECF, replied quite late (some even in May) to a message, sent in March 2007, to confirm their availability for appointment or inclusion on the reserve list. Meanwhile, the Commission had also hoped to receive eligibility applications from scientists from the new EU Member States, Bulgaria and Romania, to ensure appropriate scientific expertise from the Black Sea; unfortunately no applications have been received so far.

The commission's intention is therefore to finalise the appointment of a new STECF in the coming weeks on the basis of the current list of suitable experts. Appointment of additional experts from areas or disciplines not well represented on the STECF will be when the opportunity arises. The new STECF will enter into force at the plenary session in November 2007, when elections for the Chair and Vice-Chairs will take place; the current STECF will remain in office until that time.

4.2 STECF WORKPLAN FOR THE SECOND HALF OF 2007

Some rearrangements of the meetings or tasks provisionally scheduled in the 2007 were necessary during the first half of the year and further rearrangements are foreseen for the remainder of 2007. Such rearrangements are necessary because of the need for additional advice has emerged or because some STECF working groups require additional preparatory work in order to provide appropriate advice. Conversely, the absence of appropriate information to address the terms of reference of some meetings that were planned has led to them being cancelled or postponed.
The Commission is available to support the STECF and acknowledges the commitment of STECF members and invited experts to contribute to the different meetings and to the formulation of advice by correspondence, sometime at short notice. A special thank goes to the STECF Board that, with invaluable assistance of the STECF Secretariat, have been managing successfully the Committee despite of the increasing workload.

In order to cope with the requested changes and to avoid overburdening the Committee, the Commission has decided remove the planned meeting on cetaceans from the STECF calendar, pending ICES advice on the same subject, in order to make room to the second meeting on bioeconomic modelling for the impact assessment evaluation of the Northern hake management plan. The Commission is also looking into the possibility of supporting some experts to undertake the preparatory work for this second meeting on Northern hake.

In addition, the item on comparison between T90 and Bacoma cod-ends in the Baltic will be addressed through the ICES and removed from future STECF agenda.

The Commission anticipated that advice on sprat and turbot in the Black Sea is needed and STECF has been requested to arrange its workplan to accommodate this

need and provide its advice by correspondence in early October; Given the already congested workload, STECF is not in a position to cope with another meeting and the Commission intends to convene an ad-hoc scientific working group and STECF will evaluate the working group's report.

The Commission anticipated that advice on eel habitat in the Black Sea and associated river systems is needed and STECF has been requested to adjust its workplan to accommodate this need and provide its opinion by correspondence by mid October. Given its already congested workload, STECF is not in a position to convene an additional meeting to address this point. The Commission therefore intends to request the ICES/EIFAC WG EEL meeting from 3 to 7 September to give its opinion as to whether the Black Sea and the river systems connected to it constitute natural habitat for European eel. The Commission also requests that STECF evaluate and provide its opinion on the findings and conclusions in the report of the ICES/EIFAC WG EEL by correspondence by 15 October 2007.

4.3 DELAYS IN REIMBURSEMENT

The Commission provided an up-to-date state of play of the reimbursement of travel costs and per-diem and compensation allowances:

4.3.1 Per-diem and travel costs:

- Reimbursement for meetings up to July 2006 should have already been received by the experts;
- July-December 2006 meetings: the dossiers have been sent to the Paymaster Office (PMO) and they should commence reimbursement sometime in July-August 2007;
- January-June 2007 meetings: payments should be paid after the summer break although reimbursement for some meetings may commence earlier.

4.3.2 Allowances:

- meetings until June 2006 already compensated by early June 2007;
- meetings July 2006- December 2006 should be compensated sometime in July-August;
- meetings January – June 2007 should be compensated after the summer break although compensation for some meetings may commence earlier.

The Commission recalled that factors such as start-up of the new Secretariat, coordination between DG-Fish and JRC, shortage of personnel, errors in the compilation of reimbursement forms by some experts, delays in transmitting documents and tickets to the Secretariat have been responsible for these unacceptable delays. The backlog is gradually reducing however, and the payments should be put back on the right track in the coming few months.

The Commission stressed that some experts continue to provide the bank account number of their Institutes instead of their personal bank account; this also creats additional problem for reimbursement of allowances. In their capacity of representing STECF, experts are required to be independent. However, according to their interpretation of the financial rules, the Paymaster's office argues that if invited experts and STECF members are reimbursed to their institute's account, they cannot be considered to be acting in a personal capacity and are representing a Member State. The involved Commission services are now looking into this question to look for possible solutions if any; meanwhile experts are encouraged to provide their accounts.
STECF asked the Commission to send a letter to the research Institutes so to clarify the matter.

Information from JRC:
Preparations for the 220 reimbursement requests for the 14 meetings up to and including SGRN-07-02 in July 2007, require 5-7 weeks of effort by the STECF administrator working for the JRC secretariat.
Considering that there is also meeting organization activity taking place in parallel in September 2007, by the end of September 2007 preparation of reimbursement forms should be partially completed - leaving for completion at a later date i) the forms that need validation (note that validation takes 8-10 weeks from the date of JRC request) and ii) the forms with missing documents requiring JRC to contact the experts.
In conclusion, roughly, between 50-75% of the reimbursements could be prepared and be sent for further processing to DG FISH to pay by the end of September 2007.

JRC is in the process of recruiting an additional STECF administrative secretary which is planned to start on 1 September.

5 CONSERVATION ISSUES

5.1 REPORT ON THE STECF SUB-GROUP SGRST-07-02 ON "FISHING EFFORT MANAGEMENT"

The STECF Sub-group SGRST-07-02 on "fishing effort management" held its meeting at the IPIMAR in Lisbon, Portugal, 21-25 May 2005.

5.1.1 Terms of reference

The STECF Subgroup SGRST was given the following ToR:

1. To provide historical series, as long as possible, by each of the areas defined in Annex II of Council Regulation (EC) 41/2007, broken down by Member State and by gear type and associated special conditions, of the following parameters:

a) Fishing effort, measured in kW.days and, if possible, in GT.days

b) Catches (landings and discards) of cod in weight and in numbers by age

c) Non-cod catches (landings and discards) by species, in weight and in numbers by age

d) Catch per unit effort (cpue) of cod

2. Based on the information elaborated under 1) above, to rank gear types and associated special conditions on the basis of their contribution to cod catches both in weight and in number

3. If data are available, to provide information concerning

a) The evolution of fishing strategies of the different fleets, indicating trends favouring or avoiding the use of certain gear types and associated special conditions.

b) Where known, the strategies adopted by the fishing sector in order to increase economic efficiency (transfer of days at sea, scrapping of vessels)

c) The development of the efficiency of fishing operation (for a stable nominal fishing effort, evaluation of "technological creep") by type of gear;

4. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to the Annexe IIA framework) and by Member State according to sampling plans implemented to estimate these parameters;

5. To assess, for each major grouping of gear types, the overlap between existing fishing effort management schemes: Annexes IIA, IIB and IIC to Regulation (EC) No 41/2007, Western Waters (Regulations (EC) No 1954/2003, 1415/2004 and 2103/2004), Deep Sea Species (Regulation (EC) No 2347/2002) and Plaice and Sole Recovery Plan (under finalisation).

6. To describe the finer spatial distribution of the fishing effort deployed in the context of Annexes IIA, IIB and IIC to Regulation (EC) No 41/20007, with the aim to determine to what extent fishing effort has moved from long distance to coastal areas since the implementation of the days-at-sea regime for the first time in 2003 (Annex XVII to Regulation (EC) No 2341/2002)

5.1.2 STECT comments

STECF notes that SGRST 07-02 was unable to fully address any of the ToR due to a lack of data and late and inconsistent data provisions. The aggregation of the fleet specific effort and catch data is in accordance with the Annexes IIA-C of Council Regulation 41/2007. Data were not available from all Member States although the SGRST call for fleet specific catch and effort data was issued on 13 April 2007 (5 weeks in advance). In addition and to support the work of SGRST DG Fish invited the relevant institutes to electronically submit their data by 19 April 2007.
STECF notes that SGRST 07-02 will intersessionally accomplish the specific analyses in accordance with the ToR and discuss and present the results during the follow up meeting 24-28 September 2007, as data availability allows.
STECF agrees with the recommendation of SGRST 07-02 to keep the call for fleet specific effort and catch data open. Effort and catch data should be updated and provided not later than 1 August 2007, well in advance of the working group's follow up meeting during 24-28 September 2007. This will allow all relevant data aggregations and analyses be conducted in advance of the follow up meeting.
In reviewing STECF reviewed the work of SGRST during its plenary session of 23-27 April 2007 in Brussels and reiterates its recommendations 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.
- The provisions of the current DCR are insufficient to permit STECF to undertake its work effectively.
- The new Data Collection Regulation should regulate the data provisions by Member States in a flexible way as recommended by STECF in its plenary report from 23-27 April 2007. STECF further recommends that the creation, holding and updating of European fleet specific effort and catch data bases be institutionalised in the Commission. Any data needs should be formulated by STECF and issued by the EU-Commission to the appropriate administrative and research institutes of the Member States.

In view of the incomplete nature of the data provided to its SGRST 07-02 Subgroup meeting, STECF decided to withhold publication of the Subgroup's report at this time. The data and findings will be published following STECF's review of the report of the follow up meeting scheduled for 24-28 September 2007. This is likely to be after the STECF plenary meeting scheduled for 5-9 November 2007.

5.2 MANAGEMENT PLAN FOR NORTHERN HAKE

STECF was requested to deliver its opinion on the work of the subgroup SGBRE-07-03 (4-8 June) on evaluation of the management plan for Northern hake, including the first phase of the economic impact analysis.

5.2.1 Background

In 2004, a recovery plan for the northern hake stock (EC Reg. No 811/2004) followed up a previous emergency plan (EC Reg. No 1162/2001, EC Reg. No 2602/2001 and EC Reg. No 494/2002). The recovery plan aimed at achieving a SSB of 140,000 t (Bpa), by limiting fishing mortality to 0.25, and by allowing a maximum change in TAC between consecutive years of 15%.

The recovery plan is foreseen to be replaced by a management plan when, in two consecutive years, the target level for the concerned stock has been reached, in accordance with Article 6 of EC Reg. No 2371/2002. ICES, with the agreement of Scientific Technical and Economic Committee for Fisheries (STECF), evaluate and advices if the targets set in the recovery plan have been reached.

Recent ICES assessments indicate that the northern hake SSB is close to the rebuilding target established in the recovery plan. The increase in SSB appears to be due to a combination of good recruitment and moderate fishing mortality. As stated above, a management plan should therefore be put into place to replace the recovery plan, to ensure a sustainable exploitation of this stock in the long-term.

The future management plan will be based on sound scientific advice and, therefore the European Commission has asked STECF to provided scientific advice regarding several possible scenarios to be considered in the future long-term management plan. The analysis should include both single-species management and multi-species management considerations (see chapter 2.3). Furthermore, economic aspects should also be considered, to ensure that the biological modeling framework that is being used can also be applicable to an economic (bio-economic) analysis. The results of the economic analysis will in turn be used to assess the impact of the future management plan.

5.2.2 Subgroup Assumptions

S-R relationship is not well estimated for the northern stock of hake and the group decided to use an Ochkam model. Using the Ockham model in favour of other S-R gave a more conservative perspective of the stock development.

Due to the uncertainty on growth rates, the group decided to carry out simulations based on an alternative faster growth hypothesis consistent with available tagging data. Considering that a faster growth would also impact natural mortality, the group decided to use a higher value for M (0.4 instead of 0.2).

The current assessment for northern hake is conducted without accounting for discards as discards rates of several fleets are simply not known and even where data are available, it is not possible to incorporate them in a consistent way. The Group considered that in aiming for an optimum long-term management of this stock the issue of discards should not be ignored. Hence, simulations based on an ad-hoc rebuilding of historical discards were also carried out.
Findings

Fmax (0.17) is well defined for this stock and was considered a good proxy for the target reference point Fmsy.
Decreasing F to Fmax will result in higher and more stable biomass and higher catch per unit effort compared to fishing at Fpa.
The faster the decrease in F the faster the SSB stabilizes. This leads however to larger losses in yields in the short term.
Reductions in F towards Fmax results in short term losses if the reductions in F are greater than 5% per year.
Ftarget will be achieved in all scenarios by 2015, except in the scenario that reduces F to 0.8*Fmax at a rate of 5% per year

A faster growth rate coupled with a higher M value gives somewhat lower absolute levels of abundance and higher F but similar trends. It should be noted however that under the alternative M assumptions, results might be quite different and the group felt that further sensitivity analysesare required to give a full evaluation of alternative assumption for M.

A decrease in F in the fleets catching hake will also affect the Fs on other species associated in the catch like monkfish and megrim. However, the magnitude of the decrease in F on such species will be lower.
Taking into account discards leads to larger expected gains in long-term yields but reductions in F to reach Fmax would then need to be larger. If the reduction in F is coupled with changes in the selection pattern (by decreasing F in younger ages), this would increase further the maximum expected yields and at the same time reduce the decrease in F needed to get to Fmax.

Decreasing current F to 0.8*Fmsy or 1.2*Fmsy would lead to similar yield at long-term but to different level of SSB.
A attempt was made to link fleet segments as defined in the DCR for the collection of economic data to Fishery Units used in the assessment. The resultant matrix could be used in further analysis to investigate the economical impact of alternative management measures.

5.2.3 STECF comments and conclusions

STECF considers that the Sub-Group dealt with the task well in the time available, achieved its objectives and provided valuable information in relation to the ToRs.

STECF notes that there is little difference, in terms of long-term yields, between fishing at F_{max} compared to F_{sq} (which is close to F_{pa}). STECF notes however that reducing F to F_{max} as opposed to F_{pa} would lead to higher SSB and thus give the stock more stability, reducing the risk of getting back to an unsafe situation. This could also improve economic efficiency.

STECF notes that annual 5% decreases in F should lead to F_{max} before 2015 without significant loss in yields at short term.

STECF notes that inclusion of discard estimates in the analysis creates a stronger positive effect on yield and SSB when F is reduced. Furthermore, inclusion of discards in simulations where the selection pattern is changed to reduce F on younger ages produces positive benefits of similar magnitude to reductions in overall F. These analysis are based on preliminary and incomplete estimates of discards quantities, nevertheless, STECF is aware that discarding take place and considers, therefore, that the output gives a better representation than when discards are excluded. STECF

recommends that in any management plan involving a move towards an Fmax target, measures which improve the selection pattern should be included.

STECF recommends that the preliminary proposals presented by the group to link fleet segmentation used to collect economical data to Fishery Units used in the stock assessment model should be continued and further developed through a specific study. STECF also recommends that, following this specific study, another meeting, involving both biologist and economists should be planned, in order to carry out bio-economic impact assessments of alternative management plans for this stock. STECF recommends that some further sensitivity analysis should be conducted on the value of M when an alternative growth rate hypothesis is used.

5.3 EVALUATION OF CLOSED AREAS

The Commission is in the process of revising the technical measures used under the CFP. A two step approach is being applied; first an inventory and overview of existing MPA's within European waters undertaken at a meeting in Brussels from 19 to 21st March, 2007 (SGMOS-07-02) to be followed by a meeting in September to carry out detailed analysis of specific MPAs.

The chair of the SGMOS-07-02 meeting made an extensive presentation outlining the work carried out under the meeting Terms of Reference. A comprehensive inventory of Marine Protected Areas in European waters (TOR 1) was compiled. The chair reported that given the broad TOR it has not yet been possible to finalise the meeting report and recommendations. The Plenary recognised however that a considerable amount of useful work had been done and encouraged the subgroup to complete the meeting report as soon as practicable. The chair undertook to complete this report by correspondance by mid-July 2007.

STECF will review the report of SGMOS-07-02 in its plenary session of 5-9 November 2007.

5.4 REVIEW OF ADVICE FOR 2008 ON STOCKS OF COMMUNITY INTEREST

Part 1 of the STECF review of advice for 2008 for stocks of Community interest is published in the report SEC (2007) ????. This review presents summary information on the assessment and advice for stocks for which ICES issued advice in is report of MAY 2007 (ICES Advice *********). Note that for some stocks, additional information may be forthcoming before the scheduled meeting to produce Part 2 of the STECF review of advice for 2008. In such cases, the STECF advice for such stocks will be updated in that report.

For each stock, a summary of the following information is provided:

STOCK: [Species name, scientific name], [management area]

FISHERIES: fleets prosecuting the stock, management body in charge, economic importance in relation to other fisheries, historical development of the fishery, potential of the stock in relation to reference points or historical catches, current catch (EU fleets' total), any other pertinent information.

SOURCE OF MANAGEMENT ADVICE: reference to the management advisory body.

MANAGEMENT AGREEMENT: where these exist.

PRECAUTIONARY REFERENCE POINTS: where these have been proposed.

STOCK STATUS: Reference points, current stock status in relation to these. STECF has included precautionary reference point wherever these are available.

RELEVANT MANAGEMENT ADVICE: summary of advice.

STECF COMMENTS: Any comments STECF thinks worthy of mention, including errors, omissions or disagreement with assessments or advice.

STECF notes that following the introduction of mixed fishery advice in 2003, ICES began providing overviews of its advice for groups of stocks commencing in 2004. Such advice is summarised in section 16 of this report. In addition, the advice in relation to single species exploitation boundaries and the associated terminology has also been modified. For most stocks, the single species advice on the state of the stock is formulated under two main headings:

- *Exploitation boundaries in relation to high long-term yield, low risk of depletion of production potential and considering ecosystem effects.*
- *Exploitation boundaries in relation to precautionary limits*

For those stocks for which management plans have been agreed, ICES has also provided advice under the heading

- *Exploitation boundaries in relation to existing management plans.*

The ICES advice also contains other information that may be important to the formulation of management proposals and agreements. However, in this report, STECF provides only a summary of the pertinent points in the ICES advice and suggests that the full ICES advice, together with any comments from STECF are taken into account before any management decisions are taken.

The STECF review of scientific advice was drafted by the STECF Sub-group on Resource Status (SGRST, Chair, J. Casey) during its meeting in Ispra, Italy from 11-15 June 2007 and subsequently finalised and endorsed at the 24th STECF Plenary meeting (18-22 June 2007).

5.5 MAIN FACTORS AFFECTING CODEND SELECTIVITY

STECF was requested to deliver its opinion on the findings presented in the report of the SGMOS –07-01 meeting held in Aberdeen from 11-15 June 2007, which had the following Terms of Reference:

- Assess the influence on codend selectivity of mesh size, (mesh shape?), codend circumference as measured in maximum number of meshes round and twine materiel for different weights of catch.
    - The catch weights will be chosen in the range between 50 and 1000 kg, with prefixed levels at 50 kg, 100 Kg, 200 Kg, 400 Kg, 600 kg, 800 Kg and 1000 Kg. Additional intermediate weights could be used if considered pertinent.
    - The tested mesh sizes, mesh shape, codend circumference, and twine diameter will be those currently in place in the European legislations; however, values greater and smaller of these reference values should be explored too.

- The indicator of codend selectivity will be either L50 for a given species or the average mesh opening in an area **of the codend** to be defined just in front of the catches. Experimental L50 estimates from scientific literature will be used for the validation of PRESEMO.

- Advice on which constructive elements, which results less relevant for the selectivity of a certain type of trawl net, could be ignored while emphasizing those constructive elements that need greater attention and need to be tackle in a legislation aiming to effectively improve codend selectivity.

The meeting was held at Fisheries Research Services, Aberdeeen and attended by scientists from UK, Italy, Greece, Turkey and Denmark.

STECF notes that the WG ran simulations on cod-end selectivity for a range of codend design parameters using the PRESEMO model, which is a predictive model that is based on an understanding of the physical, biological and behavioural mechanisms that underpin codend selection. Thus, it can be used to investigate the influence and predict the effect on codend selection of a whole range of biological, behavioural and gear design parameters. PRESEMO makes use of information on codend geometry, the fish behaviour, the escape process, fish population structure, and fish morphology.

Simulations were run for North Sea haddock and Mediterranean red mullet using a range of codend design parameters. For each combination of parameters 1000 simulations were run and as a result, the haddock simulations took two days of computer time and the red mullet simulations were still being carried out when the meeting finished. Consequently, the group was unable to finalise its report by the end of the meeting and will be finalised by correspondence.

STECF was unable to provide an informed opinion on the work of the Subgroup because the subgroup report was unavailable at the time of the STECF plenary, which was held immediately following the Subgroup meeting. STECF will therefore provide its review of the work undertaken by the SGMOS-07-01 Subgroup in the report of its plenary meeting scheduled for 5-9 November 2007.

5.6 NORTH SEA PLAICE AND SOLE

5.6.1 Terms of Reference

1) STECF is requested to evaluate the TACs for North Sea plaice and North Sea sole that would be consistent with the following rule:

TACs should be set at the higher value of

- That TAC whose application will result in a 10% reduction in fishing mortality rate in 2008 compared with the fishing mortality rate estimated for 2007, and
- That TAC which corresponds to a fishing mortality rate of 0.3 on ages 2-6 for plaice, or 0.2 on ages 2-6 for sole.

However, the TACs may not change by more than 15 % from 2007 to 2008.

2) STECF is requested to report on the annual level of fishing effort deployed by vessels catching plaice and sole in the North Sea, and to report on the types of fishing gear used in such fisheries.

3) STECF is requested to provide a forecast of the maximum level of fishing effort necessary to take the EC shares of the TACs of plaice and sole in 2008.

- For the purpose of this calculation, the EC share of the plaice TAC should be assumed to be 93% and that for sole should be assumed to be 100% (the definitive figures, after transfers, will only be known at the conclusion of the Norway bilateral agreement in December).

The evaluation should be made having regard to the other relevant regulations and conditions under which the quotas may be fished, including the provisions concerning the technical measures, minimum landing sizes and quota management measures.

5.6.2 TAC for North Sea plaice and sole for 2008

North Sea plaice

STECF estimated the TAC for plaice in 2008 according to the above rules to amount to 47,000 t. This estimate implies a fishing mortality rate of F(2-6)=0.49, which applies to both landings and discards. The fishing mortality represents a 10% reduction from the 2007 estimate (status quo). The resulting TAC for 2008 (47,000 t) is within the ±15% constraint of annual variation. The predicted discards for 2008 amount to 52,000 t.

North Sea sole

STECF estimated the TAC for sole in 2008 according to the above given rules to amount to 13,530 t. This estimate implies a fishing mortality rate of F(2-6)=0.34. The fishing mortality represents a 10% reduction from the 2007 estimate (status quo). The resulting TAC for 2008 is within the ±15% constraint of annual variation. STECF notes that the ICES catch forecast is based on an arbitrary decision on the fishing mortality in 2007. STECF has revised the estimate of fishing mortality in 2007 from F(2-6)=0.44 to F(2-6)=0.38. The technical basis for this revision, and the revised catch forecast is given in Annex I of the Review of Advice for 2008 for stocks of Community Interest, Part 1. The revision implies substantial changes in the forecast of catches and stock size.

5.6.3 Trends in Fishing effort

Table 5.6.1 lists the recent trends in nominal effort in the North Sea by effort regulated gear types as provisionally compiled by STECF-SGRST 07-02 in May 2007 for fleets catching plaice or sole in the North Sea. STECF notes that these figures are provisional but do include recent updates for 2006 from the Netherlands and Belgium. STECF therefore considers the effort and catch data provided below are sufficiently representative to draw general conclusions. STECF will provide further updates by November 2007 after the follow up meeting of the STECF-SGRST 07-04 scheduled for 24-28 September 2007.

Table 5.6.2 lists the trends in catches of plaice and sole 2003-2006 taken in the North Sea by effort regulated gear types as provisionally compiled by STECF-SGRST 07-02 in May 2007. The catch estimates include fleet-specific landings and discard estimates. Estimates of fleet-specific landings and discards are listed separately in Tables 5.6.3 and 5.6.4 respectively.

While sole is almost exclusively (>90%) taken by beam trawlers using 80-89mm mesh size, this fleet also accounts for 64-72% of the estimated catches of plaice. With the exception of beam trawlers, trawlers using different mesh sizes and fishing under special conditions, contributed between 13-21% to the overall catches of plaice in 2003-2006.

Table 5.6.1 Trends in nominal effort (kW*days) deployed in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007, 2000-2006. Note that the figures are provisional as compiled by STECF-SGRST 07-02. The table lists only the nominal effort deployed in the North Sea (the relevant management areas are also given).

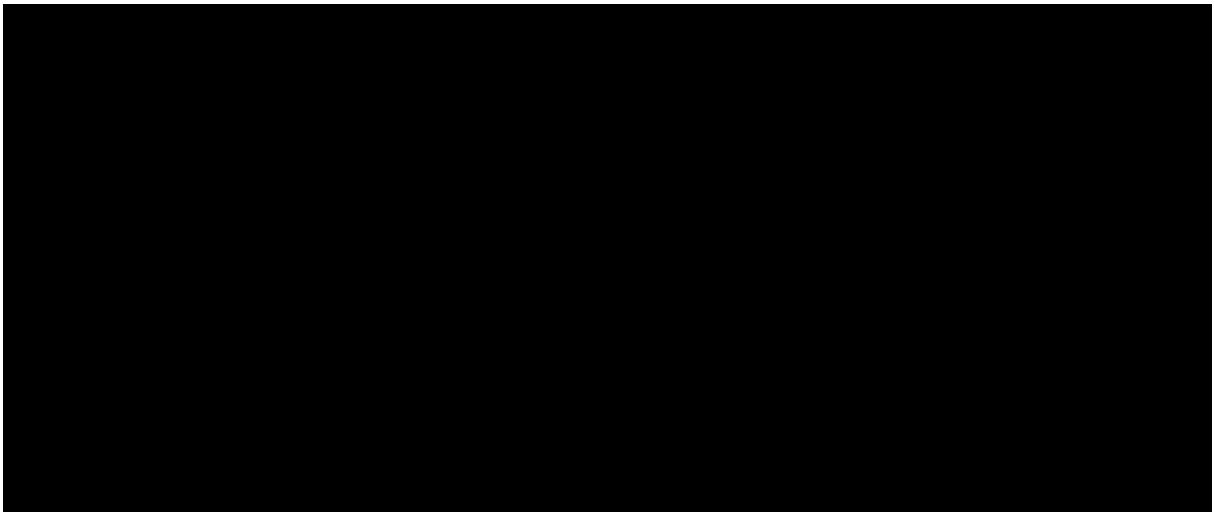


Table 5.6.2 Trends in proportional catches (%) in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007, 2003-2006. Note that the figures are provisional as compiled by STECF-SGRST 07-02. The table lists only the catches taken in the North Sea (the relevant management areas are also given).

Table 5.6.3 Trends in proportional landings (%) in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007, 2003-2006. Note that the figures are provisional as compiled by STECF-SGRST 07-02. The table lists only the catches taken in the North Sea (the relevant management areas are also given).

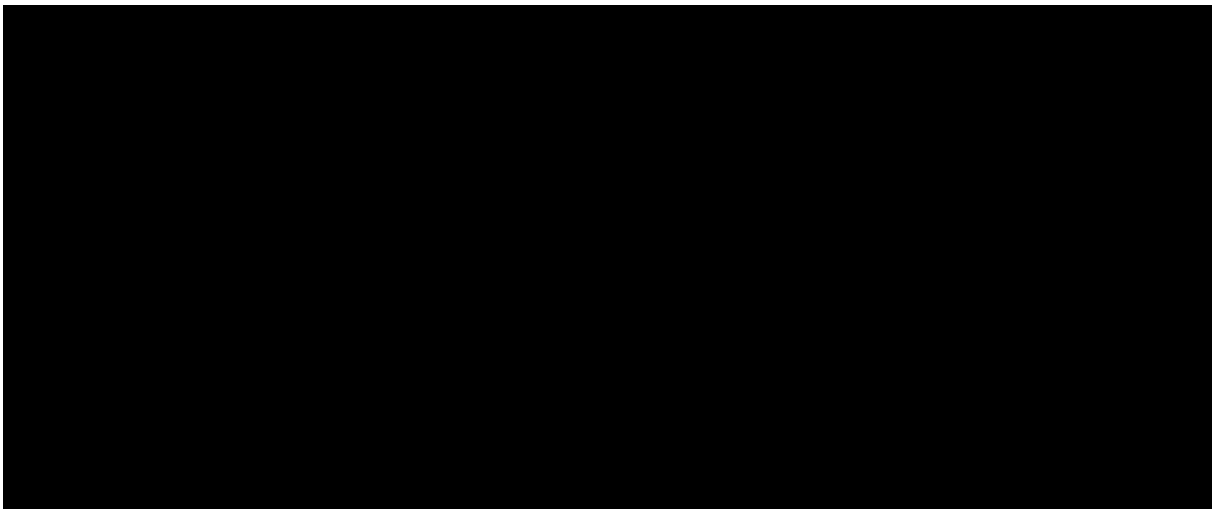
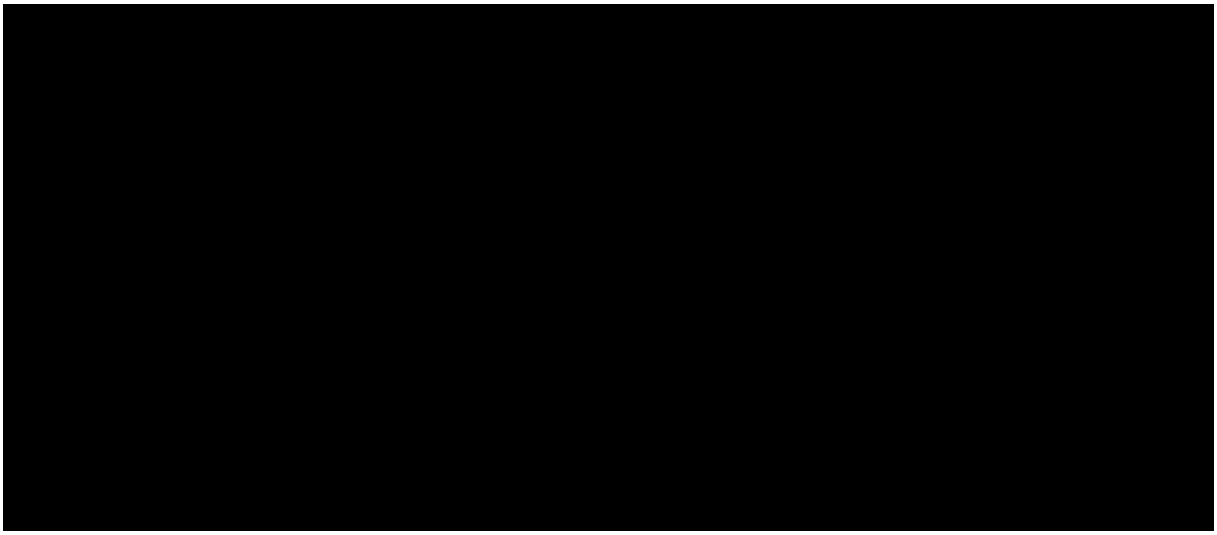


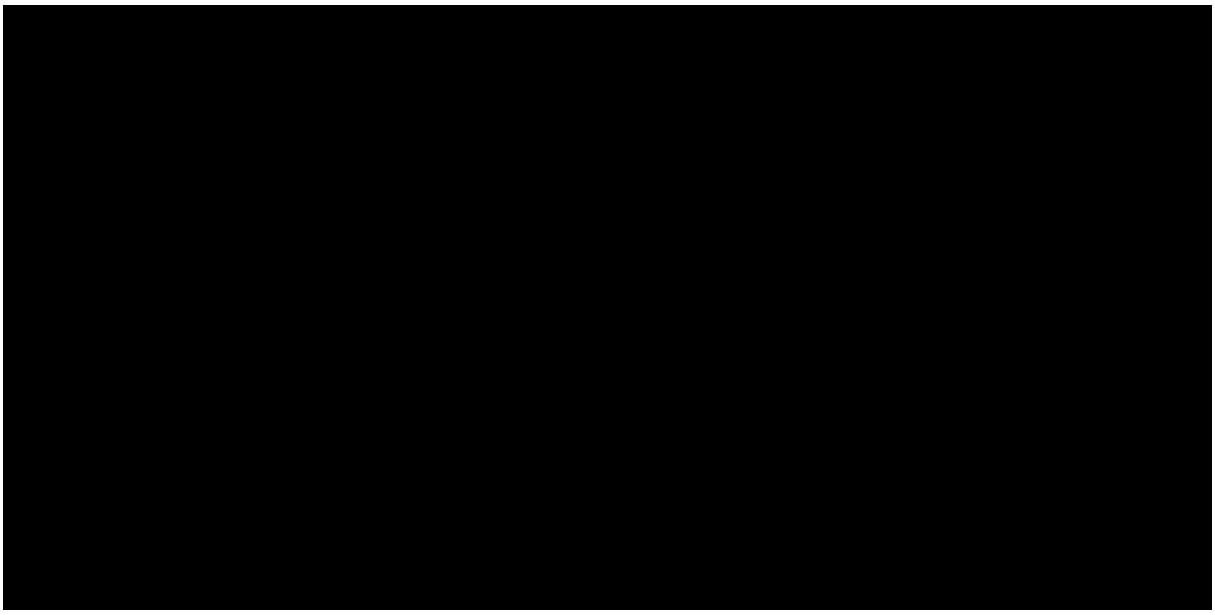
Table 5.6.4. Trends in proportional discards (%) in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007, 2003-2006. Note that the figures are provisional as compiled by STECF-SGRST 0702. The table lists only the discards taken in the North Sea (the relevant management areas are also given). Zero values indicate that there are either no discards or there were no discard estimates available to STECF.



5.6.4 Level of fishing effort to catch the 2008 TAC for plaice and sole

The estimated TACs in 2008 for plaice and sole in accordance with the management plan corresponds to a 10% reduction in fishing mortality compared to 2007.
STECF notes that the maximum nominal fishing effort in 2008 to catch the TACs of sole and plaice can be derived from a proportional reduction from the level deployed in 2006 by 10% for each of the listed fleets in Table 5.6.1, assuming a linear relationship between fishing mortality and fishing effort and a status quo effort deployed in 2007. The forecast of nominal effort for 2007 and 2008 based on these assumptions are listed in Table 5.6.5.

Table 5.6.5. Nominal effort (kW*days) in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007 in 2006, and forecast for 2007-2008. Note that the figures are provisional as compiled by STECF-SGRST 07-02. The table lists only the effort to be deployed in the North Sea (the relevant management areas are also given).



STECF further notes that the required reduction in fishing mortality for North Sea plaice and sole by 10% can also be realised through disproportionate changes in the fleet specific effort deployed in 2008. Such strategies could reduce the overall economic loss for fleets that target stocks other than plaice and sole and contribute little to the fishing mortality on plaice and sole. Any management decision based on disproportionate changes of fleet specific effort can be based on the estimation of the partial fishing mortalities of the fleets listed in Table 5.6.6.

Table 5.6.6. Trends in fleet specific partial fishing mortalities for plaice and sole in the North Sea by EU-vessels catching plaice and sole using the gears coded consistent with Annex IIA in Council Reg. 41/2007, 2003-2006. The partial fishing mortality of Norwegian vessels is also quantified. Note that the figures are provisional as compiled by STECF-SGRST 07-02. The estimate of partial fishing mortality for the Norwegian fleet was based on the annual landings for the fleet in relation to the annual overall catch including estimated discard.

Given the complexity of the task, STECF was unable to evaluate the level of effort for 2008 in accordance with the management plan and taking into account the numerous regulations and conditions under which quotas may be fished.

5.7 ANCHOVY IN THE BAY OF BISCAY

5.7.1 Background

The scientific advice for anchovy fishery in the Bay of Biscay provided by ICES-ACFM in October 2006 was to remain closed and should be considered for opening if the acoustic and egg surveys to be carried out in May-June 2007 demonstrate a strong 2006 recruitment.
Furthermore, the STECF plenary in 2006 recommended a zero TAC for the first half of the year and a possible re-opening of the fishery based on minimum spawning stock biomass level (Blim) set up at 21,000 tones. Should the results of the spring surveys indicate a lower level, the fishery should remain closed for the rest of the year. In case the SSB is greater, then the fishery could be re-opened with a new TAC level to be calculated based on simulations.

An STECF subgroup was convened from 19-21 June, at Casa Don Guanella, Ispra to work in work parallel to the STECF plenary with the following Terms of Reference:

1. Assess the spawning stock biomass on the basis of the 2007 spring acoustic and DEPM surveys in the Bay of Biscay. Calculate maximum allowable catches for the second half of 2007 and first half of 2008 as a function of the spawning stock biomass estimated in May 2007 and in case of low future recruitment (at different percentiles of the historical available estimates) and under the condition that the fishery would allow a spawning biomass at Bpa in 2008.
2. Evaluate and comment on whether there is a relationship between the recruitment abundance index estimated through the acoustic and fishing surveys carried out in autumn 2006 and first semester 2007 and the abundance of age class 1.
3. Provide estimates of overall catches and catch rates by fishing gear and country on the basis of the results of the experimental fisheries undertaken during the first semester 2007. A comparison among years of catch statistics during the same fishing period would be advisable.

STECF was requested to deliver its opinion on the subgroup's work and advise on fishing opportunities before 30 June.

5.7.2 Summary Findings of the *ad hoc* Working Group on Anchovy in the Bay of Biscay.

STECF reviewed the report of the ad hoc Working Group on Anchovy in the bay of Biscay (REFERENCE) during its plenary meeting of 18-22 June 2007 noting the following:

- The SSB in 2007 was estimated as 30,086 t, and recruitment of the 2006 year-class biomass as 23,082 t.
- Although overall biomass and recruitment of Biscay anchovy appears to have improved since the historical low in 2005, the estimate of SSB in 2007 is still considered by STECF to be low.
- The estimated biomass of the recruiting 2006 year-class in 2007 is 23,082 t, which is low.
- With the exception of the 2004 year-class, which is classified as medium, all recruiting year-classes since 2002 have been low. There is no information presently available to estimate the strength of the 2007 year-class of anchovy. Based on the historical time series of recruitment at age 1, there is a high probability that the biomass of the 2007 year-class in 2008 will also be low. If recruitment of the 2007 year-class in 2008 is low, any fishing in 2007 and the first half of 2008 will be associated with a high probability of SSB in 2008 being below B_{lim}.
- An acoustic survey targeted on juvenile (age 0) anchovy in Biscay was carried out by AZTI from 13/09 to 15/10/2006 using two vessels. The survey followed the same pattern as that in 2005. The biomass estimate for age 0 anchovy was approximately 130,000 t, although there were some technical problems with the acoustic gear that suggest this figure may be revised. The biomass is also somewhat higher than that estimated for the same year class in spring 2007. This may be due to high juvenile mortality in the winter and/or target strength differences. The index has shown a similar pattern to model estimates of recruitment over the last four years, suggesting it may have value in providing an advance estimate of recruitment. However, there has been little contrast over these years, and this index must be viewed with caution. Additionally, the survey has only covered the full distribution area in the last two years.
- Commercial vessels were used as consorts in both the PELGAS and BIOMAN surveys. In the case of PELGAS, the information from the six French trawlers, and two French and three Spanish purse seiners, were not used in the stock estimation for the assessment. This was to maintain continuity in the time series. However data exploration showed that the inclusion of catch data from these vessels did not substantially alter the perspective of the stock, and actually led to a small reduction in SSB estimate. Biological information from some of the vessels was used to improve the precision of the age composition in the stock.
- In the case of BIOMAN, four Spanish purse seiners worked with the two survey vessels. Adult samples from these vessels were used in the survey data analysis and proved very valuable, allowing a greater area coverage, and also in covering for the adult sampling RV when it experienced operational problems.
- The collaboration between industry and scientists was considered valuable for both parties, particularly in terms of mutual understanding.

- 13 Spanish purse seine vessels took part in a RAKE survey of the Cantabrian Sea and the southern part of the Bay of Biscay. The catch distribution was close to that of the two scientific surveys, as was the age structure of the anchovy caught. While the survey was successful, the group considered that it was of limited scientific value, and would not be used in any assessment. Additionally, the original STECF recommendation was to use purse seiners and trawlers, and that some of the vessels should deploy scientific echosounders. This did not occur. It was also recommended that the survey should be integrated between France and Spain, and cover the entire distribution area, and this also did not occur.
- Five French fishing vessels were allowed to carry out experimental fishing between 15/4/2007 and 10/6/2007. The catches were permitted under a range of constraints and limitations. The results proved impossible to interpret and of no value to assessment or management.

5.7.3 STECF Comments and Advice

Based on the findings of the SGRST Working Group, STECF draws the following conclusions and recommendations.

5.7.3.1 STECF advice on maximum allowable catches for the second half of 2007 and first half of 2008

- STECF notes that there are clear signs that the stock situation has improved compared to 2005. However, spawning stock biomass remains very low and maximum protection of the remaining spawning population is required. **STECF recommends** that management measures other than complete closure of the fishery in 2007 should not be considered.
- **STECF further recommends** that the fishery should remain closed in 2008 until reliable estimates of the 2008 SSB and 2007 year class become available based on the results from the spring 2008 acoustic and DEPM surveys. This implies a closure of the fishery until at least July 2008. STECF stresses that any recovery is entirely dependent on good incoming recruitment, which cannot be predicted at present.

5.7.3.2 STECF Advice on long-term management plans

- STECF notes that there is presently no agreed comprehensive long-term management plan for this stock and **recommends** that alternative or complementary management measures to output control (TAC) need to be further investigated to maintain the longer-term viability of the stock (closed seasons, closed areas, minimum size, etc.). These should only be considered after the stock has recovered to biologically safe levels, and would need to be scientifically evaluated prior to adoption.

5.7.3.3 STECF advice on surveys for Bay of Biscay anchovy

- The spring acoustic and DEPM surveys provide the main tuning indices to the current assessment and should be maintained.
- **STECF recommends** that if the PELGAS consort surveys are continued they should include vessels using scientific echosounders, and the selectivities of the different gears should be evaluated. The large number of vessels in both surveys was unnecessary, and the consort role could be filled by fewer vessels. The time

allocated for planning and preparing for the surveys was not sufficient in 2007 and any repeat exercise should allow considerably more time.

- STECF concluded that the RAKE survey provided little or no new information for assessment or management. It also required considerable commitment from research staff, and STECF felt this was better applied to key questions such as early recruitment estimation. Consequently, **STECF does not recommend** a repetition of these surveys at this time. Should they be repeated, more advance planning should be allowed for, and the conduct of them should be integrated and coordinated between the interested parties.

- **STECF recommends** that in the absence of a scientific design, experimental fishing should not be undertaken.

- Acoustic and fishing surveys should continue to be carried out in the period of September/October every year to provide an index of abundance of recruits. The survey(s) should cover the known distributional areas of the juvenile anchovy and should include pelagic trawling as well as purse seine fishing. JUVENA surveys have already incorporated these suggestions. STECF notes that the main objectives of the five or six surveys conducted each year are similar and **recommends** that all nations and/or institutes involved in the fishery should try to achieve further coordination to avoid duplication of effort. STECF also suggests that the ICES WGACEGG would be an ideal forum to discuss and arrange enhanced co-ordination. STECF also encourages development of any other research that could provide additional information on the recruitment process in this stock. Therefore, in addition to surveys for juvenile abundance estimation, any work (surveys) leading to a better understanding of the mechanisms causing fluctuations of anchovy recruitment should be encouraged.
- The similarity in the relationship between the JUVENA abundance index of anchovy juveniles and the population at age 1 at the beginning of the following year is encouraging and shows promise as a recruitment predictor. The time series at present, however, consists of only 4 years of observations preventing a proper evaluation of potential performance as a predictor. STECF considers that at least 1 more annual observation is required before a proper evaluation can be undertaken.

5.7.3.4 Timing of STECF advice on Bay of Biscay anchovy

STECF wishes to point out that with the information currently available to STECF, it can provide advice on fishing opportunities for Bay of Biscay Anchovy on a half-yearly basis. Advice for fishing opportunities for the first half of the year (January to June) can be given in June of the previous year based on an assessment of SSB at that time. Advice on fishing opportunities for the second half of the year can only be given in June of the same year, because a reliable estimate of the strength of the recruiting year-class at age 1, is a prerequisite to issuing such advice.

5.8 NORTH SEA NORWAY POUT AND SPRAT

The STECF advice on Norway pout and sprat is contained in Part 1 of the Review of advice for 2008 for stocks of Community interest (REFERENCE). The summary advice for each stock is reproduced below.

5.8.1 Norway pout (*Trisopterus esmarki*) in IIa, IIIa and the North Sea

FISHERIES: The fishery is mainly prosecuted by Danish and Norwegian vessels using small mesh trawls in the northern North Sea at Fladen Ground and along the edge of the Norwegian Trench. The fishery is mainly by Danish and Norwegian vessels using small mesh trawls in the northern North Sea. Main fishing seasons are 1st, 3rd, and 4th quarters of the year.
The fishery targets both Norway pout and blue whiting. The stock is managed by TACs. Landings fluctuated between 110,000 and 735,000 t. in the period 1971-1997, and apart from 2000 (184,000 t) decreased substantially in the following years with much smaller, variables landings (around 80,000 t). Total landings in 2004 were at a record low in the time series at 13,500 t and the fishery was closed in 2005. In 2006 the fishery was reopened and landings of 46600 t were taken.

SOURCE OF MANAGEMENT ADVICE: The main management advisory body is ICES. The age-based assessment uses a seasonal model (SXSA) and is based on quarterly catch data, a commercial cpue series and two bottom trawl surveys. The assessment provides stock status of all age groups (0–4) up to the first quarter of the assessment year (2007).
PRECAUTIONARY REFERENCE POINTS: No Fpa is set for this stock, the proposed B_{pa} = 150,000t, B_{lim} = 90,000

STOCK STATUS: Based on the most recent estimate of SSB (quarter 1 2007), ICES classifies the stock as having full reproductive capacity (SSB> B_{pa}). The stock has increased from a level where SSB at the beginning of 2006 was below B_{lim}. Fishing mortality has been very low in 2005 and the first half of 2006 due to closure of the targeted Norway pout fishery. The recruitment in 2005 has been estimated to slightly above the long-term average (67 billions), while recruitment in 2006 (41.5 billions) is below the long-term average.

RECENT MANAGEMENT ADVICE: The fishery should be closed until information confirming that the stock will be above B_{pa} at the beginning of 2008 is available. Current information indicates that SSB at the start of 2008 will be just at B_{pa}, with zero catch in the second half of year 2007.

STECF COMMENTS: STECF agrees with the advice from ICES. STECF notes however, that the current management based on half annual TAC's may lead to continued fluctuation of SSB around B_{pa} and large annual variations in catches. STECF also notes that ICES has responded to a special request from the EU and Norway on alternative harvest strategies (Section 6.3.3.1 of ICES Advice 2007, May). ICES points out that both an escapement management strategy as well as a fixed effort strategy are capable of generating stock trends that stay away from B_{lim} with a high probability. The escapement strategy has a higher long-term yield compared to the fixed effort strategy but at the cost of having closures in the fishery with a substantially higher probability.

STECF considers that the advice on harvest strategies provided by ICES can form the basis for development of alternative management arrangements if desired.

5.8.2 Sprat (*Sprattus sprattus*) in IIa and the North Sea

FISHERIES: Denmark, Norway and UK exploit the sprat in this area. The fishery is carried out using trawlers and purse seiners. There are considerable fluctuations in total landings, from a peak in 1975 of 641,000 t to a low in 1986 of around 20,000 t.

Since 1994, landings have varied from a high, in 1994, of 320,000t to a low, in 1997, of 103,400t. In the last 10 years landings have been below 200,000 t. Estimated total landings in 2006 were around 114,000 t.

SOURCE OF MANAGEMENT ADVICE: The main management advisory body is ICES. The assessment is based on indicators derived from a research survey and on a two-stage Catch-Survey Analysis (CSA). The CSA model assumes that the population consists of two stages: the recruits and the fully recruited ages. There are difficulties in age reading resulting in unreliable estimates of numbers-at-age from the surveys and the commercial catches. This problem is evident in the 2007 IBTS indices, where an extremely poor age 1 year group in the 2006 index has turned into a very strong 2007 age 2 index. The validity of the IBTS index vs. catch regression as a forecast method is limited by the quality of the IBTS index.

PRECAUTIONARY REFERENCE POINTS: Precautionary reference points have not been defined for this stock.

STOCK STATUS: The available information is inadequate to estimate the absolute stock size. However, relative trends in biomass from an exploratory assessment indicate that the stock is at a median level for the last 10-years. The 2006 year class is estimated to be poor in the IBTS survey carried out in 2007. Sprat is a short-lived species with large natural fluctuations in stock biomass.

RECENT MANAGEMENT ADVICE: There are no precautionary reference points for this stock that can guide the single-stock exploitation boundaries. A regression between survey index and catches suggests catches in 2007 in the order of 195 000 t under the assumption of a similar exploitation rate (in-year advice).

As the North Sea sprat stock and catches are mostly driven by the recruiting year classes there is no basis at present for a specific numerical advice for the TAC in 2008.

Sprat has recently been fished with a 10% by-catch of juvenile herring. The absolute by-catch of herring in 2006 was around 12 000 t. The by-catch of juvenile herring was taken from a North Sea herring stock that is experiencing severe recruitment failures. Although the by-catch of juvenile herring was much lower than the allowed by-catch ceiling (42 500 t), the poor recruitment of herring warrants that the by-catch be constrained even further.

STECF COMMENTS: Noting that because of the current recruitment problems for North Sea herring, STECF recommends that the by-catch quota for herring taken in fisheries conducted with fishing gears with mesh sizes below 32 mm in the North Sea should be significantly reduced.

5.9 FMSY FOR BALTIC HERRING AND SPRAT STOCKS

The Commissions policy is to propose TACs for 2008 linked to F_{msy}. However, there are stocks for which no F_{msy} estimate exists and STECF is requested to advise on proxies for F_{msy} for pelagic stocks in the Baltic Sea.

STECF was not in the position to conduct the analysis required to define level of fishing mortalities for pelagic stocks in the Baltic consistent with a maximum sustainable yield management strategy. STECF therefore based its evaluation on information available in the 2007 ICES advice for Baltic stocks. For most of the stocks no or too little information was available for STECF to advise on F_{msy} or proxies thereof. For these stocks STECF has evaluated if the current fishing mortalities imposed on the stocks is above, at the same level or below levels that in the long term will provide for high yields and low probability for the stock falling outside precautionary limits.

Herring in Sub-divisions 22 to 24.

F in 2006	F_{msy}/proxy	Basis/ comments
0.522	0.219	$F_{0.1}$. Advised by ICES as possible target consistent with high yield and low risk of reduced reproductive capacity

Herring in Sub-divisions 25 – 29 and 32 excluding Gulf of Riga

F in 2006	F_{msy}/proxy	Basis/comments
0.121	0.188	$F_{0.1}$. Advised by ICES as possible candidate for high long term yield

Herring in Sub-division 28.1 (Gulf of Riga)

F in 2006	F_{msy}/proxy	Basis/comments
0.401	Not available	Available information indicates that F in 2006 is above the levels consistent with high yields and low risk to the stock through reduced reproductive capacity

Herring in Sub-division 30

F in 2006	F_{msy}/proxy	Basis
0.169	Not available	Available information indicates that F in 2006 is close to levels consistent with high yields and low risk to the stock through reduced reproductive capacity

Herring in Sub-division 31

F in 2006	F_{msy}/proxy	Basis
Not available	Not available	Not possible to assess the present F in relation to levels consistent with high yields and low risk to the stock through reduced reproductive capacity

Sprat in Sub-divisions 22 - 32

F in 2006	F_{msy}/proxy	Basis
0.293	Not available	ICES points at F_{pa} (0.4) or $F_{0.1}$ (0.388) as possible candidates for target F consistent with high yields. However, medium term simulations indicates that fishing at current F may provide for higher yields and low risk to the stock through reduced reproductive capacity

6 BALANCE BETWEEN CAPACITY AND EXPLOITATION

Article 14 of Council Regulation (EC) No 2371/2002 and Article 12 of Commission Regulation (EC) No 1438/2004 require Member States to submit to the Commission, before 1 May each year, a report on their efforts during the previous year to achieve a sustainable balance between fleet capacity and available fishing opportunities. So far the annual Commission report emanated from the annual reports on the results of the Multi-Annual Guidance Programmes (MAGP), the last of which was published for the year 2002. Since 2003 there are no more capacity targets set for fishing fleet segments per Member State. The various capacity targets have essentially been replaced by the introduction of two principles, the entry/exit regime and the capacity reduction resulting indirectly from effort reduction regimes in the context of multi-annual recovery and management plans.

The new reporting format is based on Art. 11 and 14 of the Basic Regulation 2371/02. It is the primary publicly available reference concerning the development of the Community fishing fleet capacity in the light of Member States' efforts to achieve a balance of fishing capacity with fishing opportunities, as requested by the Basic Regulation.

The Member States' reports and, as a result thereof, the Commission report are structured along the topics stipulated by Art. 14 of Implementing Regulation 1438/2003, namely:

- Description of the fleets in relation to the state of fisheries
- Impact of effort reduction schemes on capacity
- Compliance with the entry-exit regime and with levels of reference
- Strengths and weaknesses of the fleet management system; administrative procedures.

Current state of reporting

Currently most Member States' reports have concentrated on the factual description of their fishing fleet segments and the assessment of compliance with the capacity management provisions established by Community law. In fact in the current report only the physical state of the fleet is presented in terms of number of vessels, tonnage and engine power in kW. No measures for capacity utilisation, profitability or available resources are provided. Nor is a linkage provided between catching opportunities and fishing capacity.

Also it is noted that information included in member States Reports is not of a homogeneous nature nor is fleet segmentation at Member State level uniform. Some Member States continue to base it upon the segmentation developed under the MAGP; others use adapted or wholly independent classifications.

It is desired that further efforts should be made to develop a reporting structure based on biological, economic, environmental and societal indicators with a clearer presentation of the relationship between fishing capacity and available fish stocks. This should be achieved through improved and more harmonised data to underpin the report element "Description of the fleets in relation to the state of fisheries", also linked

to the element "Impact of effort reduction schemes on capacity", thus allowing for a better evaluation of the balance between fishing opportunities and capacity.

General considerations

The challenge that lies ahead is to link available fish stocks/catch opportunities to the vessels that use this resource. For example if you look at a single species like cod you want to know all vessels that catch cod and then you can cluster/group these vessels according to further characteristics and specify management measures at these specific individual groups. Defining fishing capacity by area and fishing opportunities by region and defining the link between the two provides a basis for management measures and to facilitates an analysis of cause and effect.

In developing an improved approach for evaluating the balance between capacity and fishing opportunity it is important that definitions of 'opportunity' are understood and fully considered. Such opportunities may be expressed in terms of yields, resource rent or employment. In using a fleet report to inform future management decisions then the issue of the level of opportunity (or target) becomes important (e.g. maximum yield, maximise rent, maximise employment).

The qualitative assessment of the relationship between fleet size and fishing opportunity needs to be based on both biologic and economic data. While it seems obvious that a full assessment of the status of stocks available to the fleet segments, based either on ICES advice or on scientific committee of a Regional Fisheries Management Organization, would go far beyond the scope of the reports, there are biologic and economic data available, through the Data Collection Regulation, which have not been fully exploited. The better exploitation of these data for the analysis of the balance between fishing capacity and fishing opportunities would be in line with parallel efforts in the much broader context of indicator-setting for the ecosystem approach of the new CFP.

In devising this system, two rather fundamental issues need to be addressed. The first being the clustering of fisheries operations, the second being the bringing about of a system of relative simple and reliable indicators providing monitoring information on the bio-ecological and socio-economic spheres of operation.

Métier based approach
For many fleets, being quite homogenous in operation and species caught throughout the year, grouping individual vessels is not a major feat, e.g. beam trawl fisheries and pelagic trawlers. The DCR regulation, is moving towards métier based collection and recording of fishery information (biological, fishing activity and economic) and in a couple of years can be expected to furnish data of the required type. STECF is of the view that considerable progress towards the metier based approach to fisheries has been made, and that it should be considered thoroughly in the report for evaluating capacity vs. opportunity.

The system envisaged would establish a relationship between on the one side the fishing mortality (F) by species and métier (or fishery) and on the other side the fleet segment (i.e. group of vessels with similar activities throughout the year). Such an approach supposes we are able to build a matrix and have estimates of F for the main species caught by the fleet.

Data availability
Data availability differs widely over the regions. The possibility of exploring fleet capacity data by métier in relation to the related fishing opportunities is principally

limited to those fisheries where a specific stock assessment is available, where a quota system is in place and when specific fleet data exist.

Those considerations automatically imply that for some fisheries and métiers in the Mediterranean Sea and in the Black Sea, as well as a part of the fisheries carried out in the CECAF area and other minor Atlantic, North Sea and Baltic fisheries, the process is more complex and will require a specific data mining or the development of specific data collection..

A qualitative assessment of the relationship between fleet size and fishing opportunity needs to be based as much as possible on a relative small number of indicators which in turn should be based upon a limited number of parameters already collected (or collected in future as per the revised DCR) from the DCR. The parameters and indicators identified should be relevant to expressing the relationship between fishing capacity and fishing opportunities, be straightforward and, concerning data quality, reliable. For data not as yet subject to the DCR, such as standardised biological information, it should be considered to in future be included.

Scoping Case studies
Noting the current state of reporting and the desire to produce a revised reporting methodology at the earliest opportunity and the fact that data availability differs widely over regions, but also acknowledging the fact that there is already a desire to for the Member States' annual reports covering 2007 (due in April 2008) to contain improved indicators, STECF suggests that a limited number of cases be considered in the first instance

Although it is recognised that many fisheries are as yet not embedded in a system of regular data collection, there are quite a few fisheries (for example, the fleet segments included in the Annual Economic Report) for which data arising from the DCR are available. It is suggested to start a pilot with those fisheries. By way of demonstration and encouragement, case studies could be developed from relatively simple fishery systems where adequate data already exist so as to illustrate the process and demonstrate the value

If the pilots prove successful the method can be developed into a regular exercise. Success will be measured against pertinence of the data for the pivotal question, swift usability of the data for the reporting scope and format, and Member States' readiness to draw a link between the data provided and their reporting obligation.

The scope of the pilot study is explore some case studies (pilot studies), trying to identify the best suitable data to be collected in a more advanced future DCR version and according to the new métier approach.

Phased approach
Although the blueprint and basis for an improved approach are essentially in place, the databases and tools to operate such a system are still in development. Significant work remains, particularly at the member state level in some cases. Furthermore it will be some while before suitable data will be readily available. STECF considers that the premature introduction of a new reporting requirement that by necessity demands information in a new form will only serve to create inefficiency and confusion. STECF is of the view that a strong signal be given that this is the direction that the work is going and that indication of the requirements is given well in advance, perhaps with a timetable for implementation (in the context of the timelines of other developments such as the DCR).

During this developmental phase it is important that member state personnel (statistical, administrators etc) responsible for the provision of fleet, fishery and economic data are involved in and contribute expertise to the process. Once implemented, any improved system for reporting fleet data will require that member state administrations are fully familiar with the principles and support the approach. There would also be benefits to be gained by the inclusion of stakeholders in the early stages of providing definitions of fleet segments and defining metiers. Regular interviews with fishermen help to build a picture of how their activities evolve through time and such data may be used to model and predict effort reallocation between métiers.

Route

STECF notes that setting up indicators to describe the balance between capacity and exploitation is a complex issue with numerous pitfalls, and that several meetings have addressed the issue of how to follow up on the multi-annual guidance program, cf. SEC (2003a, 2003b, 2004a, 2004b and 2006).

On an overall basis, the following types of indicators can be identified:

- Biological indicators (reference points) (e.g. stock development, fishing mortality rates, CPUE)
- Physical indicators (e.g. number of vessels, tonnage, engine power, days fished)
- Economic indicators (e.g. revenue, profit, gross value added cash flow)
- Bioeconomic indicators (e.g. resource rent, rate of return on capital, profit margin, value of biomass)
- Other indicators (e.g. social, environmental)

Although the above list provides an overarching view on the different perspectives of analysis needed to be able to provide a linkage and analysis of fishing capacity and fishing opportunity, STECF is not presently in a position to determine which set of indicators per fisheries would be most appropriate.

STECF notes that the indicators utilised must be readily derivable using data collected within the DCR. However, possible amendments to the DCR should be an option, if such information is considered to improve the illustration of the balance between capacity and exploitation. Given that the implementation of the revised DCR (based around the principles of a metier approach) is not due to be implemented for another couple of years, there is scope to make such amendments.

In addition, in order to arrive at an operational and rather easy to apply system, it is proposed to arrive at a minimum set of indicators. These generic indicators, with broadly agreed definitions and data requirements will need to be tailored to the specific nature of the different fisheries (for example to reflect fundamental differences in fisheries between say the North Sea and Mediterranean) As far as possible, it is recommended, that Member States should apply similar general definitions of indicators.

An example of simplicity and clarity of a set of indicators can be found in the box below. Based on this example the conclusion must be that the indicators are not apt to be applied on all regions since some of the data is lacking in some regions, or the nature of the fisheries (e.g. combination of metiers over the year) calls for more complex (aggregated) indicators:

Fishing opportunities	TAC
Capacity	No of vessels, GT, kW

Capacity deployment	Number of days fished/possible numbers of days fishing
Linkage	CPUE
Capacity utilisation	Costs and value of TAC

STECF further notes that the many complex types of fishing fleets and fisheries within the member states requires that case studies are needed in order to illustrate the numerous topics which need to be addressed, before agreeing on the actual indicators to use. The case studies should be developed from relatively simple fishery systems, where adequate data already exist so as to illustrate the process and demonstrate the value

STECF also notes that models previously approved and used by STECF can be adapted to calculate a relatively simple metric of the balance between a member states fishing capacity and opportunity in form of comparing the aggregate value of its TACs with its overall fleet's costs (or desired profit level), cf. SEC (2006). This indicator could be useful in the interim period while moving towards a more sophisticated system for evaluating capacity/opportunity balance based on several indicators.

Recommendations
Based on the above, STECF recommends that:

- indicators are kept simple, measurable, and agreed upon
- the set of required data and reporting must be in a format that is useful both for the national managers and at EU level
- the required data should already be included under the DCR; in case where necessary data is not included under the DCR they should be included during the DCR reform
- line up with the current discourse on fleet segmentation (métier, fisheries units)

In order to set up the future approach to these indicators, the STECF recommends setting up a small working group with the following terms of reference:

Objective
Propose possible approaches for assessing economic, as well as technical/biological, indicators to estimate the capacity/resource balance of EU fisheries/fleets.

The proposed approaches must be simple and clear in order to facilitate the preparation of future annual fleet reports.

Specific issues to be addressed are:

1. Review and define indicators of balance
Indicators of balance have been discussed, see for instance SEC (2006). Review the literature, and identify possible biological (e.g. stock development, fishing mortality rates, CPUE), physical (e.g. number of vessels, tonnage, engine power), economic (e.g. gross revenue, profit, gross value added, cash flow) and combined bioeconomic indicators (e.g. resource rent, break even, rate of return on capital, profit margin, value of biomass).

2. Review and define fleet segments and fish stocks
The proposed indicators must be applicable by using data collected in line with the DCR. With reference to the DCR review and define fleet segments and fish stocks having in

mind that not all fish stocks are subjected to assessment, and that capacity measures may not be available for all fleet segments. Further, consider the multispecies/multifleet issue, i.e. that each fleet exploit several stocks and each stock is exploited by several fleets.

3. Consider short run and long run indicator and criteria
Indicators could vary depending on whether the time perspective is considered to be short run or long run. The consequences of this in relation to the indicators must be addressed. Furthermore, considerations must be made addressing the relevant levels of the indicators in view of the time perspective.

4. Data demand and availability
A requirement is that proposed indicators must be applicable using data collected in line with the revised DCR, review the indicators in the light of available data. The specific variables relevant for each indicator must be identified and the availability within the EU member states must be reviewed. Identify shortcomings and if possible propose adjustments. Where possible indicators should be applicable and robust across different areas but suitable proxies may be required where data are sparse.

Develop a support framework for furnishing comparable data from different member states. If this has database development implications etc. specify these.

There may be a case for considering a regional approach, using for example RAC areas.

5. Case studies
The proposed indicators must be applicable by each member state. Case(s) presenting indicators using available data should be included as illustration.

In order to develop the set of indicators from the perspective of the users, STECF recommends this process to start with a discussion with stakeholders e.g. administrators, fisheries managers and the sector in order to identify usage, definitions and practicability of the linkage of fisheries opportunities to fisheries capacity.

Concerning the specific Terms of Reference for STECF

STECF supports the proposed approach to improve the Commission fleet capacity report. Indeed linking fishing capacity to fishing opportunities through an operational and limited set of indicators, based on already available data under DCR, VMS, and concerted actions, will be a step further than the current provision of only fleet physical data.

STECF is not currently in a position draw up a definitive small number of numerical indicators relevant for such analysis. Setting up indicators to describe the balance between capacity and fishing opportunities is not straightforward.. However, this issue has already been addressed by several STECF working groups c.f. SEC (2003a, 2003b, 2004a, 2004b and 2006). Proper utilisation of the information in these reports should provide the basis for the selection of an appropriate limited set of indicators.

STECF proposes the following types of indicators to be further evaluated in a small working group:

- Biological indicators (reference points) (e.g. stock development, fishing mortality rates, CPUE)
- Physical indicators (e.g. number of vessels, tonnage, engine power, days fished)

- Economic indicators (e.g. revenue, profit, gross value added cash flow)
- Bioeconomic indicators (e.g. resource rent, rate of return on capital, profit margin, value of biomass)
- Other indicators (e.g. social, environmental)

The Terms of Reference for this working group are provided above. The ToRs are aimed at identifying a set of indicators that can be used to illustrate the balance between capacity and fishing opportunities. The working group will also advise on additional standard information that is indispensable for a comprehensive description of the balance and not accessible via data collection under the Data Collection Regulation.

In response to a request from the Commission and in an attempt to comply with the Commissions timetable for the introduction of a new reporting system, STECF proposes the following work plan in order to address the issues specified in the proposed ToR:

	Action	Objective	Result/Product	Timing
1	Inventory of available information	Bring together existing material on indicators such as ▪ Art. 11 and 14 of the Basic Regulation 2371/02 ▪ SEC (2003a, 2003b, 2004a, 2004b and 2006). ▪ Impact Assessment protocols ▪ Available DCR (including DCR-revision), log book, VMS, CA-AER data ▪ Nantes report on fleet segmentation	WG chair together with JRC bring together all available information, make inventory of useful information	October 2007
2	Analysis of information	Devise a first set of possible indicators based on criteria as spelled out in the STECF advise and on the available material, based on ▪ Biological indicators (reference points) (e.g. stock development, fishing mortality rates, CPUE) ▪ Physical indicators (e.g. number of vessels, tonnage, engine power, days fished) ▪ Economic indicators (e.g. revenue, profit, gross value added cash flow) ▪ Bioeconomic indicators (e.g. resource rent, rate of return on capital, profit margin, value of biomass) ▪ Other indicators (e.g. social, environmental)	5 days WG with participants from across EU Analyse available information and provide an overview of possible indicators Prepare examples using case studies. WG report	October 2007
3	Stakeholder consultation	Discuss with the intended users (COM, MS, statisticians, managers) the criteria for	The COM to facilitate a one day workshop	November 2007

		selecting indicators and obtain a view on the desired output.	with participation from across EU	
4	First set of indicators and lining up indicators with DCR, Impact Assessment, Annual reporting	Based on 2 & 3 formulate set of indicators that fulfil requirements of simplicity, consistency and ease of use and data availability. This includes a definition by indicator and indication of data availability (when required: recommendations for adapting DCR accordingly)	5 days WG with participants from across EU. WG report	November 2007
5	Final set of indicators	Based on 4, in discussion with users decide on final set of indicators	2 day Workshop in Brussels to make selection of indicators. WS report	December 2007
6	Design Reporting format	Based on the selected indicators under 5 a reporting format and method is developed in cooperation with JRC	3 days WG with participants from across EU. WG report	January 2008
7	Final report	Synthesis of findings and final recommendations	Final report	February 2008

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7 TECHNICAL MEASURES IN THE BALTIC SEA

7.1.1 Background and Terms of Reference

The Commission shall, on the basis of advice from the STECF, present to the Council not later than September 2007 an assessment of the selectivity on cod of active gears for which cod is recognised as target species.

Only the BACOMA and T90 trawl nets are authorized to fish for cod.
MSs had different opinions on the most appropriate nets and they "engaged" to promote selectivity monitoring to have a more correct view of the matter.

STECF is requested to check whether any updated information with respect to their selectivity is available and to evaluate whether both nets ensure a high and proper selectivity or if for example the T90 may reduce its selectivity in time.

STECF response
STECF was not provided with any new catch monitoring results made by observers on board vessels using BACOMA and T90 trawl nets or with results from selectivity experiments using these gears. The only new information was a paper (in press) on a simulation-based study of cod-end selection of T90 meshes and the effect of reducing the number of meshes in the circumference.

STECF agreed not to formulate any advice on the issue based on this limited new information, especially because this is based on simulation. STECF concluded that it is essential that new information on the composition of cod catches should come from monitoring of vessels using the BACOMA and T90 trawl nets during commercial fishing operations. Outcomes obtained during commercial operations, provide the best reflection of the real world, and are deemed necessary as a basis for future technical measures for the Baltic cod fishery. Monitoring should be conducted using a common methodology and be undertaken over a sufficiently long time span to be able to detect deterioration of selectivity through gear use.

8 OTHER MATTERS

8.1 UNACCOUNTED FISHING MORTALITY

In furthering the exchange of information and ideas between ICES and the STECF, Mr Philip MacMullen, was invited to the STECF plenary meeting to present information on the activities of the ICES Study Group on Unaccounted Fishing Mortality (SGUFM). This SG is under the WG on Fishing Technology and Fish Behaviour (WGFTFB). Its terms of reference are:

- to consider issues relating to the sources of fishing mortality other than those that can be accounted for by the reported catch;
- to report on the current knowledge of unaccounted mortality; and
- to review and make recommendations on methods used to estimate escape mortality from towed fishing gears.

The SG had been in existence for 11 years. It had identified 10 different categories of fishing mortality of which 5 were thought to be very significant. A survey of available data and interviews with stock assessment WG chairs and members showed that most stock assessments, and subsequent management advice, took no account of UFM. Even where data were available it was seldom incorporated into the advice.

Work described later demonstrated that data were increasingly robust and indicated that UFM was at a level that should be taken into account. ICES advice[1] was clear that, where this was the case the causes of UFM should be identified and appropriate mitigation introduced. Where this was not possible assessment WGs had a responsibility to point this out. This was only known to have happened once in recent years.

Current work had shown that:

- total fishing mortality for North Atlantic mackerel was probably well over 2x the currently published figures. Much of this was caused by poor effort targeting by fishermen and slipping unwanted catches – the resulting mortality was almost certainly around 100%,
- the level of escape mortality for gadoids like haddock and whiting was very much higher than expected, exceeding discard mortality and possibly increasing F by 25%, and
- 'ghost fishing' by deep water gill nets was threatening the conservation prospects of deep water shark species and resulting in high levels of discarding of other species.

Some of the implications of this information were explored and Mr MacMullen also proposed an expanded future role for the SG. His proposals were that:

- SGUFM should be 'upgraded' to a full ICES WG (already recommended to FTC),
- the scope of the new WG should be extended focusing on discarding, IUU fishing and escape mortality related to technical conservation measures,
- liaison with the assessment WGs and entities like STECF should be strengthened,

[1] Give ref here

- the potential sources of information should be broadened to include, for example, market derived data on IUU sourcing,
- groups like STECF and assessment WGs should be encouraged to identify priority areas for research, and
- WGUFM should consider a facilitating role in co-ordinating research partners and exploring funding packages.

STECF COMMENTS

STECF welcomed the presentation by Mr MacMullen, noting the potential importance of UFM to stock assessments and resulting management advice.

STECF noted that of the 10 sources of UFM identified by the ICES group, 5 had been identified as potentially important, and suggest that because of the likely resource implications of attempting to gain further quantitative estimates of UFM, steps should be taken to identify those elements for which quantitative information is most likely to be readily obtainable.

STECF further suggests that wherever possible, important sources of UFM should be taken into account by assessment working groups and in the evaluation of management plans.