



GENERAL FISHERIES COMMISSION  
FOR THE MEDITERRANEAN  
COMMISSION GÉNÉRALE DES  
PÊCHES POUR LA MÉDITERRANÉE



**GENERAL FISHERIES COMMISSION FOR THE  
MEDITERRANEAN**

**SCIENTIFIC ADVISORY COMMITTEE**

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**SAC PRELIMINARY WORKPLAN FOR 2007**

**I. INTRODUCTION**

1. As part of its mandate, the Scientific Advisory Committee (SAC) provides the General Fisheries Commission for the Mediterranean (GFCM) with the preliminary workplan for the Committee's next intersessional period, for consideration by the Commission at its following ordinary session. This document summarizes elements that could facilitate the task of SAC in identifying its 2007 workplan, taking into account guidance provided by GFCM and the suggestions made by each of SAC Sub-committee (document GFCM:SAC9/2006/4). The operational support from the FAO sub-regional projects to the preliminary workplan would need to be precised as well. Hence, this document should be appraised as “food for thought” to facilitate the work of the Committee in defining its work programme for 2007.

**II. CONTEXT FOR THE 2007-2008 SAC REFERENCE FRAMEWORK**

2. In 2001, the SAC workplan has been guided by the Reference Framework for a biannual (2002 – 2003) operational mandate of the Committee through which the Commission used to emphasize SAC priority activities in the field of fisheries management, including impact on the environment.

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3. At its 27<sup>th</sup> session (November 2002), the Commission recalled that the Reference Framework needed to be periodically updated and that the Chairperson of SAC should identify priority activities for the next intersession period on the basis of inputs available and outcomes from the intersession period<sup>1</sup>.
4. At its 28<sup>th</sup> session (October 2003), the Commission provided further guidance, including by requesting the SAC to place more emphasis, *inter alia*, on a holistic approach to fisheries management, taking into account the multispecies nature of most shared fisheries. It also requested the SAC to strengthen the coordination and integration of activities among its Sub-committees and to ensure that recommendations derived from resources and environmental assessments be translated into management advice that take into account the socio-economic dimensions of concerned fisheries.
5. At its Extraordinary session (July 2004), the GFCM also acknowledged<sup>2</sup> that SAC's medium-term task was to complete the series of integrated activities needed to close the fisheries management cycle, providing the Commission with all the elements for the implementation of management plans at fisheries, sub-regional and basin level.
6. At its 29<sup>th</sup> session (February 2005), the Commission further stressed that a larger number of stocks, especially shared stocks, and of Geographical Sub-Areas (GSAs) should be covered<sup>3</sup> and alluded to the need to ensure the scientific and technical monitoring, as appropriate, of GFCM's Recommendations. GFCM also stressed that the work proposals should be consistent with the capacities of the autonomous budget or should be complemented through identifying additional resources<sup>4</sup>. In order to facilitate the forecasting of expenditures relating to the SAC workplan, Sub-committees were invited to specify, when relevant, the terms of reference of envisaged studies and workshops, and identify specific needs for external inputs, such as consultants, when required.
7. In recent years, the Commission also endorsed proposals related to the betterment of the *modus operandi* of SAC's subsidiary bodies for achieving more efficient implementation of the Committee's intersessional workplans. At the 8<sup>th</sup> session of SAC<sup>5</sup>, the Secretariat suggested that the formulation of a mid-term rolling Reference Framework would help integrate the various ongoing activities and ensure that outputs fully contribute to GFCM medium term objectives. A consolidate framework would help, for example, facilitating the implementation of important concepts such as the operational units, the multidisciplinary regulation of fishing effort and the ecosystem approach to fisheries (EAF). The instruments that underline the functionality of these concepts (e.g. indicators and reference points, parameters for monitoring fleet capacity and fishing effort, etc.) would be more visible. Such a document would also spell out the linkages between the elements of the programme of each Sub-Committee, thereby facilitating the identification of priority activities.
8. Notwithstanding the need for consolidating SAC Reference framework and without prejudging of the results of the 9<sup>th</sup> session of the Committee, a summary provisional list of activities and meetings is outlined below.

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<sup>1</sup> Report of the 27<sup>th</sup> session, paragraph 88.

<sup>2</sup> As underlined in document GFCM:ES/2004/inf.4.

<sup>3</sup> Report of the 29<sup>th</sup> session, paragraph 63-64.

<sup>4</sup> Report of the 29<sup>th</sup> session, paragraph 93.

<sup>5</sup> Paragraph 6, document GFCM: SAC8/2005/5

### III. ELEMENTS FOR THE 2007 WORKPLAN

9. At its 30<sup>th</sup> session (January 2006), the Commission concurred as to the relevance of all the proposed 2006 SAC activities and meetings but spelled out an order of priorities, in particular for the Sub-Committee on Stock Assessment (SCSA) and Sub-Committee on Marine Environment and Ecosystems (SCMEE). GFCM priorities for 2006 which might need follow-up action are reproduced below for ease of reference. They are complemented, as relevant, with proposals made in the respective report of the Sub-Committees (documents GFCM:SAC9/2006/Inf.5, Inf.6, Inf.7, Inf.8). When available, draft terms of reference for proposed Working group, Workshop or study are appended to this document.

#### *Sub-Committee on Stock Assessment (SCSA)*

##### GFCM priority 2006:

- testing the biological and socio-economic indicators and reference points, for priority species, in the framework of the operational units concept;
- pursuing the mapping of the distribution of juveniles for priority species;
- monitoring stocks assessed in 2004 and 2005, with priority to species covered by the Recommendation GFCM/2006/1 and assessing the state of other shared stocks, multispecies fisheries and fisheries targeting priority species;
- producing a reference document on the impact of selected fishing gear on the environment in order to promote the implementation of corrective selectivity measures, and promoting the establishment of a network of Mediterranean technologists, and establishing a databank on gear selectivity, using the agreed format.

##### SCSA proposed main activities for 2007:

###### *Assessment methodologies and formats:*

- update the SAC stock assessment forms (template P1) taking into account fleet segments and Units of nominal fishing effort exerted by fleet segment and OU and organize a Transversal Workshop (SCSA/SCSI/SCESS) on disaggregated data;
- prepare curricula and identify partner institutions to initiate training course on new methodologies for stock assessment based on trawl survey data;
- standardize the different approach for echo surveys in the Mediterranean;
- promote adaptive approach for small-pelagic assessments through further encouraging the development and execution of recruitment surveys/direct surveys (acoustic and/or egg production) to ensure minimum precautionary levels of spawning stock biomass;
- specify in the assessment documents presented to the SCSA, the area and time of the year suggested in relation to any proposal for reducing fishing effort through temporal and/or spatial closure;
- devise criteria for improving the validation of growth parameters used in stock assessments.

###### *Indicators and reference points:*

- promote studies on the identification of environmental parameters and their integration into stock assessment modeling within the framework of the ecosystem approach to fishery management (EAF); and ensure that EAF related documents are presented in joint SCMEE/SCSA session during the parallel meeting of the Sub-committees;

*Mapping the distribution of juveniles:*

- use available information (although often based on different methodologies) to produce reliable maps of nursery areas for selected species to investigate the effect of an area closure to the recruitment of the concerned species. In order to evolve from a descriptive approach to a dynamic approach, it would be necessary that: first, a stock assessment is produced and, then the information on area proposed to be closed or restricted to fishery be specified in terms of management advice;

*Priority species and shared stock lists:*

- promote definitive consensus on preliminary criteria to update the priority species list.

*Improving fishing gear selectivity:*

- devise steps for replacing diamond mesh in bottom trawl cod end with 40 mm square mesh with the view to increasing landing size and long term yield of target species, bearing in mind that this may entail limited short term decrease of commercial yields;
- collect necessary scientific information with the view to investigating the possibility of technical improvements of the gears (in parallel to testing spatial and/or temporal closures) to protect juveniles, particularly to minimize fishing mortality of undersized specimen/smaller than size at first maturity;

***Sub-Committee on Marine Environment and Ecosystems (SCMEE)***

GFCM priority 2006:

- undertaking interdisciplinary pilot studies for identifying and applying the principles of the ecosystem approach on the management of shared stocks at the sub-regional level, and testing, in doing so, the ecological indicators for the spatio-temporal monitoring of fishing effort;
- pursuing coordination with projects on the monitoring and control of the impact of fishing on protected or endangered species, including with a view to enhancing such coordination;
- continuing to investigate and formulate a structured programme of research on species living at depths greater than 1 000 metres also considering the three sensitive habitats indicated in the Recommendation GFCM/2006/3.

SCMEE proposed main activities for 2007:

*EAF:*

- organise a transversal workshop on EAF to review the results of available pilot studies with emphasis on methodological considerations and identification of EAF indicators; this would include further developing the case studies on the “spatial distribution of the different life stages of demersal fisheries resources “carried out in GSA 15” and “on the use of GIS to integrate environmental and biological data”carried out in GSA 14, in particular to integrate socio-economic aspects and analysis of ecosystem functioning.

*Protected/threatened species:*

- integrate the evaluation of the extent of the interactions between cetacean and fisheries (ByCBAMS project) to the knowledge of the cetacean population status (ACCOBAMS Survey Initiative);
- extend the ACCOBAMS/SCMEE initiative on cetaceans-fisheries interactions to other protected/threatened species; and promote robust scientific experiments to assess the impact of different types of pingers on cetacean and fish species;
- establish and operate a transversal Working Group on by-catch;

*Sensitive habitats:*

- compile an inventory/synthesis of published studies on fisheries and biodiversity of deep sea areas, in order to initiate the process toward the formulation of a management plan (beyond 1000 meters);
- devise a standard procedure to assess the eligibility of new proposals for deep sea fishing reserves or restricted bottom trawl areas; .
- organize with partner institutions a workshop to take stock of existing types of MPAs and evaluate the representativity and the efficiency of their management systems.

***Sub-Committee on Statistics and Information (SCSI)***

GFCM priority 2006:

- continuing the identification and extension of studies on Operational Units to all GSAs, with a priority to the GSAs covered by the Recommendation GFCM/2006/1 and those having shared stocks and priority species;
- formatting and storing in the GFCM databank information needed by the Commission, including those available from the FAO regional projects, FAO/FIDI and other programmes;
- finalizing, with the support of the MedFisis project, the framework of fleet data for the operational units and ensuring the compilation and storage of available relevant national data and their input into the GFCM databank;
- compiling a list of national databases on fisheries.

SCSI main proposed activities for 2007:

- pursue practical testing of the Operational Unit concept through further identification of OUs in the Mediterranean area and promote related data collection and analysis per OU;
- organize a workshop on the compilation of GFCM Task 1;
- further study the issue of calibration/allocation of fishing effort units with support from the FAO Sub-regional projects;
- harmonize the GSAs boundaries with the FAO-FIDI statistical sub-divisions;

***Sub-Committee on Economic and Social Sciences (SCESS)***

GFCM priority 2006:

- development of the use of socio-economic indicators in fisheries management through the implementation of the OUs approach;
- study of the legislative and socio-economic aspects of recreational fisheries;
- analysis of the impact of national and regional market forces (including supply and demand, prices, quality control) on the fishing industry and on the management of the fisheries concerned.

SCESS main proposed activities for 2007:

- analysis of the impact of market forces on fisheries management, with special reference to sardines in GSA 03; striped mullet in GSA 05, hake in GSA 06 and small-pelagic in GSA 17;
- definition of a minimum list of sociological indicators to be integrated in the data collection system for the OUs (GFCM Task 1), possibly through organizing ad hoc workshops by the Sub-regional projects, as already done by AdriaMed, to: i) define national sociological information needs; ii) implement case studies, and iii) work toward the definition of the GFCM minimal list of indicators to be used within the Operational Units matrix;
- update the FAO Fisheries Circular No. 978 “The Fish Trade of North African Mediterranean Countries”, by expanding the scope of the study to include all Mediterranean countries, as well as the FAO Fisheries Circular No. 927, entitled “Economic Status of Mediterranean Capture Fisheries and Aquaculture”;
- undertake an analysis of the legal frameworks regarding recreational fisheries and initiate exploratory surveys of the socio-economic status of these fisheries;
- draft a workbook on the use of socio-economic indicators in fisheries management;
- organize (during the next SCESS meeting), a Workshop on the use of socio-economic indicators in fisheries management.

#### ***Joint GFCM/ICCAT Working Group on Large Pelagic Species***

10. It is suggested that the Working group resumes its activities, concentrating on:
- collecting and analysing information on swordfish recreational fishing;
  - ensuring follow-up to the recommendations of the 7<sup>th</sup> session of the Joint Working Group concerning small tunas, especially the compilation of statistics and the implementation of scientific research programmes;
  - organize the 8th session of the Working group accordingly.

#### ***Meetings***

11. Taking into account SAC request (7<sup>th</sup> session) to limit the number of intersessional meetings of its subsidiary bodies, the Committee may wish to critically review the following meetings suggested by the Sub-Committees for the next intersession period:

<b>Meeting</b>	<b>Place/Date</b>
Tenth session of the <b>SAC</b>	To be defined/to be defined
Session of the <b>SCSA</b>	To be defined/to be defined
Working Group on Demersal Species and Working Group on Small Pelagic Species;	To be defined/to be defined
2 <sup>nd</sup> Permanent Working Group on Stock Assessment Methodologies, including training course on selected methodologies	To be defined/to be defined
Workshop on OUs disaggregated data methodology analysis	To be defined/to be defined
Session of the <b>SCESS</b> , including a Workshop on the use of socio-economic indicators in fisheries management.	To be defined/to be defined

Session of the <b>SCSI</b>	To be defined/to be defined
Transversal workshop on the compilation of GFCM Task 1	To be defined/to be defined
Session of the <b>SCMEE</b>	To be defined/to be defined
Transversal workshop on EAF	To be defined/to be defined
Transversal Working Group on by- catch	To be defined/to be defined
Workshop on MPAs management systems	To be defined/to be defined
8th session Joint GFCM/ICCAT <b>Working Group on Large Pelagic Species</b>	To be defined/to be defined
<b>CMSC</b>	To be defined/to be defined

#### IV. SUGGESTIONS FOR THE COMMITTEE'S ATTENTION

12. The Committee is invited to assess the activities proposed for its subsidiary bodies in 2007, taking into account the outputs and progress achieved in 2006 in relation to GFCM main priority guidance. In doing so, the Committee may wish to identify necessary inputs to support activities as well as to specify, when relevant, expected timeframe and output.

13. The SAC is also invited to amend, complement or refine the priorities outlined in this document, taking into consideration any suggestions from the Coordination Meeting of the Sub-Committees (CMSC) (document GFCM:SAC9/2006/Inf.9) and related budget implications. In doing so, the Committee may wish to decide on the venue and dates of meetings and seek to convince members to host some of them.

**Appendix 1****A. Terms of Reference for the SCSA/SCSI proposed Transversal Workshop on methodology to analyze disaggregated fishery data**

1. Taking into account the progress made on operational units concept (OUs) and the results of the First meeting of the PWSAM, and the availability, for some Mediterranean areas, of data series on landings and prices/revenues, disaggregated by day, vessel and species, the SCSI and the SCSA recommended to organize in 2007 a Workshop to develop a common methodology to analyze and compare results from these different series.
2. More specifically, the Workshop will develop standard methods to:
  - filter data and detect errors and biases;
  - analyze variability of landings at different time scales;
  - identify clusters of vessels (potential OUs);
  - identify target species;
  - identify species composition;
  - identify and describe seasonality;
  - identify and describe trends, both in fishing activity and in stock abundance;
  - identify fishing strategy and tactics<sup>6</sup> (metiers);
  - define nominal effort and propose a method to obtain effective effort for each vessel/OUs;
  - analyze prices; and
  - explore methods to calibrate official landing statistics from sampling on board and field surveys.
3. A description of each data series, including: years covered, vessels and species, number of registers (vessel-day-species-catch-price/revenue) should be provided for the areas concerned before the workshop. The workshop will therefore consist of practical work analysis of the (historical) data series on landings and prices/revenues, disaggregated by day, vessel and species. It should take place only if at least two relevant sets of data are guaranteed to be available before the workshop.

**B. Terms of Reference for the SCESS proposed Workshop on the Use of Socio-Economic Indicators in Fisheries Management**

1. Economic conditions are one of the factors guiding the decisions within fishing management. Unfortunately, the necessary economic information is not always available for use in fisheries management in the GFCM area. To address this issue, a minimal list of economic indicators for use in fisheries management was defined by SCESS and approved by SAC for application throughout the region.
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2. Under the initiative of SCESS and with the support of the AdriaMed and CopeMed projects, pilot studies were undertaken in recent years to provide for data collection and the estimation of economic indicators in various GFCM countries.
3. It is timely to test the use of acquired indicators in actual fisheries management scenarios. A technical workshop will provide the forum for the analysis of real data and the evaluation of practical management situations where the use of these indicators can contribute to the adoption of fisheries management decisions.
4. As part of the preparatory work for this proposed workshop, the following activities would be undertaken:
5. The preparation of a workbook to process available data in a way useful for providing information to fisheries managers. These guidelines would cover the following topics:
  - use of indicators for bio-economic models;
  - use of indicators to establish hierarchy on fleets in relation their profitability, employment or other criteria;
  - use of indicators to predict the economic and social impact of the adoption of measures as fleet reduction, time reduction, or licenses redistribution between fleet segments;
  - use of indicators to establish compensation under action plans projects to involve and stimulate the fishermen participation;
  - use of indicators and reference points in trends analysis.
6. The elaboration of case studies by each invited national researcher in which existing management proposals could be analyzed in fisheries sectors having the required economic indicators. The pre-workshop elaboration of national case studies will assure the existence and availability of the relevant data.
7. These reports would be presented during the workshop and the case studies analyzed by the workshop participants with the aim of contributing to the development of precise management recommendations.
8. The Workshop would produce a final report highlighting key findings, management recommendation, and conclusions of the workshop, a finalized workbook, and recommendations for further work, if warranted. Researchers from the GFCM area with the necessary experience for undertaking such an exercise will be invited to participate in the Workshop. Contributions from individuals outside the GFCM area may be enlisted to share their experiences in the use of socio-economic indicators in fisheries management.

### **C. Terms of reference of the Workshop on Ecosystem Approach to Fisheries (EAF)**

1. Under the SCMEE agenda item Ecosystem Approach to Fisheries, two presentations were given on:
  - a case study on waters around the Maltese Islands (GSA 15) with the aim of providing a comprehensive overview of the spatial distribution of the different life stages of demersal fisheries resources in relation to the type and distribution of fishing activities as well as oceanographic factors characteristic to the area;
  - a case study on the use of GIS to integrate environmental and biological data on the Gulf of Gabès (GSA1b) with the view of selecting marine areas of conservation interest to be proposed as MPAs.

2. While discussing, participants noted that:
  - there is a slow progress in defining methodologies for EAF;
  - the EAF is of common interest to all the Sub-Committees;
  - this topic should be addressed during transversal sessions; the SCMEE will however pursue its coordination role concerning the SAC's works on EAF.
  
3. Therefore the SCMEE recommended organizing in 2007 a SCMEE/SCSA/SCSS/SCSI transversal Workshop on EAF, including relevant GFCM partners (ACCOBAMS, RAC/SPA, IUCN and WWF), to:
  - review the results of the available pilot studies with the view of giving further consideration to methodologies and identifying EAF indicators in the Mediterranean;
  - develop the case studies in particular through integrating socio-economic aspects and aspects related to the ecosystem functioning;
  - analyze potentials and limitations of the ecosystem approach to fishery;
  - set a common framework and methodology to implement EAF.

#### **D. Term of reference of the transversal Workshop on MPAs**

1. Considering the importance of fishery reserves in the management of fisheries, the SCMEE recommended to organize jointly with RAC/SPA in 2007 a SCMEE/SCSA Transversal workshop on MPAs to:
  - make an inventory of existing types of MPAs in the Mediterranean Sea;
  - evaluate their representativity and the efficiency of their management systems;
  - define their role as fisheries management tool;
  - prepare a synthesis on MPAs in the Mediterranean.
  
2. Information on MPAs will be collected via the SAC focal points and of RAC/SPA and other partner organizations. A standard form to collect data will be elaborated.