



**GENERAL FISHERIES COMMISSION
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COMMISSION GÉNÉRALE DES PÊCHES
POUR LA MÉDITERRANÉE**



Scientific Advisory Committee (SAC)

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**Report of the SCESS Working Group on a common methodology to carry
out socio-economic analysis
Bar, Montenegro, 3 February 2014**

INTRODUCTION OF PARTICIPANTS AND ADOPTION OF THE AGENDA

1. The Working Group of SCESS on a common methodology to carry out socio-economic analysis (WGSEM) was held on 3 February 2013 in Bar, Montenegro and was attended by 9 experts from GFCM Members, representatives of the EU, FAO Regional Projects and GFCM Secretariat. The list of participants is reproduced under Appendix B.
2. Mr Dario Pinello, from the FAO Regional Project EastMed, was appointed moderator of the working group.
3. The agenda was adopted without changes (Appendix A).

REVIEW OF THE WORK DONE WITHIN SCESS ON METHODOLOGIES FOR THE COLLECTION OF SOCIO-ECONOMIC DATA AND THE USE OF SOCIO-ECONOMIC INDICATORS IN FISHERIES MANAGEMENT AND PRESENTATIONS RELATING TO METHODOLOGIES USED WITHIN THE REMIT OF THE GFCM

4. Mr Nicola Ferri, from the GFCM Secretariat, recalled the work done within SCESS on methodologies for the collection of socio-economic data. In particular, he referred to the previous session of SCESS when it was decided that a need for a common standard had become urgent in connection with the launching of the new GFCM Data Collection Reference Framework (DCRF). Reference was also made to the decision by SAC to establish a working group in order to address the matter and report the results to the 15th session of SCESS (4-5 February 2014, Bar, Montenegro) and consequently to the 16th session of SAC (March 2014).
5. Several participants underlined the importance of socio-economic data to be collected and analyzed in support to fisheries management. The recent work done by GFCM in connection with multiannual management plans demanded to complement current biological assessments with relevant socio-economic considerations. It was noted that within the GFCM competence area different methodologies existed for the collection and analysis of socio-economic data and the use of socio-economic indicators in fisheries management.
6. Mr Mathieu Bernardon, from the FAO Regional Projects CopeMed II and ArtFiMed, presented two contributions of relevance for the working group. On the first one, he recalled the

choice of data, indicators and methodology applied in socio-economic aspects linked to small pelagics in the Alboran Sea and the results obtained by CopeMed II. Subsequently, Mr Bernardon illustrated socio-economic aspects of small-scale fisheries in Morocco and Tunisia against the background of the methodology and results relating to ArtFiMed. In both cases, reference was made to the documents produced and circulated. It was recognized that the work done represented an important contribution for the development of a common methodology to carry out socio-economic analysis.

7. Mr Scander Ben Salem, SCESS coordinator, delivered a presentation on the French experience on methods for socio-economic data collection and analyses in Mediterranean fisheries on behalf of Ms Claire Macher, from Ifremer. The socio-economic data collection methodology illustrated was based on a four steps sampling plan: i) exhaustive frame survey of the national fishing fleet, ii) economic survey of around 15% of the population, iii) optimization of the number of vessels to sample (distribution of a proxy of the gross revenue) and iv) implementation of a systematic sampling system. Collected and validated data (quality check of data collected and computed) were then banking for use in the description of socio-economic characteristics of the French Mediterranean fishing fleets, evaluation of socioeconomic impact of implemented Mediterranean management plans and bio-economic impact assessment of management options. The participants agreed that several elements examined were useful for the elaboration of a common methodology in the GFCM competence area.

8. Ms Nicoletta Milone and Mr Luca Ceriola, from the FAO Regional Project AdriaMed, presented an overview of the activities focused on fisheries socio-economics carried out by illustrating the methodology adopted by AdriaMed to progress in the characterization of the socio-economic aspects of fisheries in the Adriatic Sea since 1999. As starting approach, it was recalled which priorities and gaps had been identified in terms of socio-economic data and skills in relation to the Adriatic Sea. An assessment was then performed and the work carried out highlighted the lack of expertise and human resources devoted to these sciences. Support was hence provided at national level and to prompt dialogue between experts. Fishery system indicators were used as the basic building blocks of the traffic light method and analysis conducted and the methodology applied in the case of Albania was a random sampling based one, according to a multi-level stratification with a coverage of 30% of the fisheries. This enabled to adopt a common methodology in subsequent pilot studies on socio-economic fishery data collection set up in Montenegro and Albania in 2007 and 2012 respectively.

9. Mr Pinello followed up on the previous presentation by explaining that EastMed had adopted and further developed a standard methodology to collect socio-economic data in the Eastern Mediterranean. The methodology consisted of a 'stratified random sampling design, without replacement' where the sampling unit was the licensed fishing vessel and the fleet was stratified according to GFCM fishing segments. This methodology had also been applied in Albania and Montenegro by AdriaMed. Mr Pinello presented in particular a comparative analysis of the socio-economic characteristics of some fishing segments in five Mediterranean countries (the data was collected on the basis of the abovementioned methodology). Taking into consideration the lessons learned and the experience gained, it was pointed out that a cost-effective and efficient socio-economic data collection strategy in the GFCM competence area should be based on stratified random sampling. The proposed scheme to meet the desired objectives would need clear definitions of the target population, the sampling unit and the criteria for the stratification. The quality of the data should also be assessed and the review of the sampling program would have to be performed annually.

10. Mr Malouli Idrissi, from the INRH of Morocco, informed participants that his country was about to develop and operationalize several management plans, including for Mediterranean fisheries. Aware of the importance of socio-economic analyses in support to these plans as well as of their impacts on the fishery sector, national authorities had begun in 2013 a programme aimed at evaluating the profitability of certain coastal fisheries which would be extended in 2014 to other fishing sectors. This programme was developed with the direct involvement of research institutions, administrations of fisheries and private stakeholders in the fishing industry via the establishment of a working group. The methodology applied had facilitated the division of two fleets in three segments (i.e. small, medium

and big) and four regions (depending on the zone) using a 15% sampling threshold. The analysis of data was in the final phase.

11. Mr Nikolaos Mitrakis, from DG MARE, provided a short exposé regarding the Scientific, Technical and Economic Committee for Fisheries (STECF) Annual Economic Report. After referring to applicable legal instruments within the EU (i.e. Commission Regulation (EC) No. 665/2008 of 14 July 2008 establishing the Data Collection Framework), he explained that data was requested by the European Commission through annually sent letters to the Member States which defined the time series (starting from 2008) and the main economic variables to be submitted. Data submission was being conducted using Excel templates available via a web application conceived as an on line uploading tool which also performed automated basic data quality checks. The data were then made available to the STECF to produce the Annual Economic Report on the EU Fishing Fleet which included the performance of the economic indicators and their evaluation. Thanks to these actions, the EU was efficiently supporting its decision making processes. Mr Mitrakis expressed the view that it was crucial that the socio-economic data collected by the GFCM should be consistent with the EU Data Collection Framework economic data in order to avoid duplicating and that there was strong evidence that main economic indicators were the same. Further cooperation between the STECF and the SCESS would be beneficial in the future and the compilation of an annual report on the socio-economic analysis of the Mediterranean and Black Sea fisheries by the GFCM would be useful.

PROPOSALS FOR A REFERENCE DOCUMENT ON GUIDELINES FOR A COMMON METHODOLOGY TO BE APPLIED TO ANALYSE SOCIO-ECONOMIC DATA IN FISHERIES MANAGEMENT

12. In view of the various experiences existing at national level in the GFCM competence area, as well as in light of the work done by the FAO Regional Projects, it was proposed that a common methodology to carry out socio-economic analysis should be based on a “stratified random sampling” scheme. Ample references were made to the technical documents prepared in the past by the GFCM (i.e. GFCM Studies and Reviews No. 71, Feasibility assessment for a database on socio-economic indicators for Mediterranean fisheries, by R. Franquesa, M. M. Idrissi and J. A. Alarcón and GFCM Studies and Reviews No. 73, Manual of fisheries sampling surveys: methodologies for estimations of socio-economic indicators in the Mediterranean Sea, by E. Sabatella and R. Franquesa) and it was noted that these documents were still valid frameworks to define indicators and data needed. These and other information could be considered as implied in the proposed common methodology.

13. In the course of the discussions it was explained that the economic analysis of fisheries was used to support the conservation and management of resources and environment. Data were essential in providing the basis for good decision-making and better fisheries management. The Code of Conduct for Responsible Fishing and the adoption of relevant international agreements provided a set of global principles and standards to guide responsible fisheries practices. Regardless, there was a generalized lack of economic data in the fisheries sector and when data were collected there was a wide range of schemes followed, absent a common methodology at international and regional level. In order to fill this gap in the GFCM competence area, the FAO Regional Projects had developed practical guidelines aimed at fostering the harmonization of the fisheries socio-economic data collection and the analysis of the data on the basis of the experience gathered in different countries. The methodology tested was based on a statistical design, where the licensed fishing fleet for the reference year was taken as the population and the sample unit was one, randomly selected, vessel. There was agreement that this experience could provide a reference point for the development of a common methodology to carry out socio-economic analysis in the GFCM competence area.

GENERAL CONCLUSIONS AND RECOMMENDATIONS FOR SCESS

14. The SCESS Working Group on a Common Methodology to carry out socio-economic analysis, taking into account the lack of such a common methodology in the GFCM competence area, proposed that in the initial stage the following recommendations should be followed:

- the “stratified random sampling” scheme (sampling methodology) was suggested as a basis to carry out the collection of socio-economic data in the GFCM competence area. For the purposes of this scheme:
 - “socio-economic data” are those required by the GFCM recommendations, as encompassed in the new GFCM DCRF (except those which are collected on a census basis);
 - the “target population” is composed of all licensed fishing vessels;
 - the “sample statistical unit” is the licensed fishing vessel;
 - the “stratified random sampling” will be done from the population of fishing vessels; and
 - the periodicity, timing and variables of the scheme will depend on final decisions to be taken in connection with the GFCM DCRF.
- the “stratified random sampling” scheme (sampling methodology) should be operationalized, departing from GFCM socio-economic variables included in the DCRF, through a survey including at least the following operational steps:
 - to make the target population available in electronic format (i.e. excel format);
 - to stratify the target population according to the GFCM fleet segment (i.e. GFCM DCRF);
 - to define the optimum sample rate in each strata depending on the number of the vessels (the coverage should be inversely proportional compared to the number of the vessels in the strata);
 - to select the sample units from the target population;
 - to collect raw data from the sample;
 - to make consistency check of the sampled data;
 - to process the sampled data and refer them to the total population, including the statistical quality parameters (i.e. coefficient of variation, standard error and non-responses rate).
- the “stratified random sampling” scheme, including the survey above, would be further detailed in a practical manual for the collection and analysis of socio-economic data in the GFCM competence area, provided by the FAO Regional Projects to the Commission at its 38th session (May 2014). The manual would also address practical aspects and offer suggestions.

CLOSURE OF THE WGSEM

15. The Working Group on a common methodology for socio-economic analysis adopted its recommendations on 3 February 2014. The report was endorsed via email.

Appendix A

Agenda

- 1. Introduction of participants and adoption of the WG agenda**
- 2. Review of the work done within SCESS on methodologies for the collection of socio-economic data and the use of socio-economic indicators in fisheries management**
- 3. Presentations and discussions relating to methodologies used within the remit of the GFCM (e.g. GFCM Members, FAO Regional Project, others)**
- 4. Proposals for a reference document on guidelines for a common methodology to be applied to analyse socio-economic data in fisheries management**
- 5. General conclusions and recommendations for SCESS**
- 6. Any other matter**
- 7. Closure of the Working Group**

Appendix B

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