



**GENERAL FISHERIES COMMISSION FOR  
THE MEDITERRANEAN**

**COMMISSION GÉNÉRALE DES PÊCHES  
POUR LA MÉDITERRANÉE**



**SCIENTIFIC ADVISORY COMMITTEE (SAC)**

**Fifteenth Session**

**REPORT OF THE THIRTEENTH SESSION OF  
THE SUB-COMMITTEE ON ECONOMIC AND SOCIAL SCIENCES  
(SCESS)**

**FAO HQs, Rome, Italy, 18–20 February 2013**

**\* Available only in English**

**OPENING AND ARRANGEMENTS OF THE SUB-COMMITTEE MEETINGS**

1. The Sub-Committees meetings of the Scientific Advisory Committee (SAC/GFCM), including the general transversal session, were held at FAO headquarters, Rome (Italy) on 18–20 February 2013.
2. Mr Henri Farrugio, Chairperson of the SAC, welcomed the participants and thanked them for attending the meeting. He then gave the floor to Mr Abdellah Srour, Executive Secretary of the GFCM.
3. Mr Srour expressed sincere gratitude to the Chairperson of the SAC and to all the coordinators of the Sub-Committees for their work. He recalled the mandate of the SAC and its Sub-Committees, insisting on the need to strengthen their role, and mentioned upcoming activities by the GFCM, including those within the first GFCM Framework Programme (FWP). Mr Srour underscored the regional interest that these activities were drawing. He stressed the extremely positive role played by the FAO regional projects within the framework of fisheries management in the Mediterranean and Black Sea, insisting on the need for enhanced integration and synergies between their activities and those implemented through the GFCM Strategic Framework Programme 2013-2018.

**TRANSVERSAL SESSION: INTRODUCTION OF ONGOING ACTIVITIES UNDER  
THE FIRST PHASE OF THE GFCM FRAMEWORK PROGRAMME**

4. Mr Miguel Bernal, from the GFCM Secretariat, presented a synthesis of the work to be done by the Sub-Committees as well as an overview of the FWP. In this respect, he introduced the five work programmes (WP) composing the GFCM Framework Programme (i.e., WP01: Governance and Management, WP02: Data Collection, WP03: Aquaculture, WP04: Artisanal Fisheries/Recreational Fisheries and WP05: Sub-regional Cooperation), which should be implemented progressively over an allotted five-year

- span, and focused on WP01 and WP02 since they had already been launched thanks to EU funding. Mr Bernal specified that activities undertaken were connected for the time being with the strengthening of data collection systems and the testing of the GFCM guidelines on multiannual management plans at a sub-regional scale.
5. Mr Marcelo Vasconcellos, from the GFCM Secretariat, provided additional insights on activities carried out in relation to the sub-regional multiannual management plans, highlighting the guiding principles underpinning the chosen methodology and presenting a list of potential case studies and a roadmap for applying the guidelines to those cases.
  6. Mr Nicola Ferri, from the GFCM Secretariat, briefed the participants on the launching of the “Concerted action for Lebanon”, which started with an initial meeting organized within the framework of WP05 of the FWP. He insisted in particular on the importance of pooling ongoing efforts at different levels in order to ensure a coherent strategy in support to the development of fisheries and aquaculture in Lebanon.
  7. The meeting agreed that discussions and comments made during the transversal session be included in the reports of each Sub-Committee under the corresponding agenda item.
  8. Mr Farrugio acknowledged the work undertaken by the GFCM Secretariat and opened the discussion on the presentations delivered (data collection, multiannual management plans, Concerted action for Lebanon).
  9. The representatives from the EU also thanked the GFCM Secretariat for the valuable work done and for the excellent organization of the meeting and reiterated their will to support GFCM, in particular, with the auspices/commitments underlined by the Part III of the GFCM Guidelines for multiannual management plans. Under the FWP, the need to give priority to case studies on sub-regional multiannual management plans involving shared stocks either subject to excessive exploitation or of species that are vulnerable to overexploitation was stressed. At the same time, it was also underlined that the multiannual management plans should be seen as the normal scientific and regulatory framework to agree and implement joint management measures also for fisheries and stocks exploited in a sustainable manner.
  10. Mr Majdalani, from Lebanon, thanked GFCM for launching the “Concerted action for Lebanon” meeting which, in his view, would help to put cooperation in Lebanon on the right track and paving the way for future activities. In response to comments questioning a possible overlapping with the work carried out by the FAO Regional Projects, it was explained that a participatory approach had been ensured and that the maximum level of coordination was foreseen for the follow-up phase in order to avoid any possible duplication and to optimize resources.
  11. The participants expressed interest for the new Data Collection Reference Framework (DCRF), which was briefly presented by Mr Bernal and for which a broader discussion took place under SCSI. The meeting was informed that, since the performance review of the GFCM had highlighted gaps in the data collection and submission processes, the thrust of the DCRF was to ensure that the data to be gathered in the future were useful for the management of fisheries. To start this process, a series of activities aimed at strengthening the GFCM framework for data collection had already been launched. These included the assessment of data compliance and databases at the GFCM Secretariat, the assessment of national data collection systems, and the design of a data collection reference framework consistent with the GFCM objectives.
  12. Some questions were raised regarding a possible support to the countries for the

implementation of the sub-regional multiannual management plans as well as the participatory approach to be used to account for the views of fishermen. The Executive Secretary confirmed that the FWP was meant to assist the GFCM members, in particular those in the South Mediterranean and the Black Sea, as corroborated by WP05. The EU stressed that sub-regional multiannual management plans were also aimed at fostering the building-up of a scientific basis for the sustainable management of fisheries in all GFCM member countries.

13. Finally, Mr Bernal briefly presented the regional workshop on sustainable artisanal fisheries for the Mediterranean and the Black Sea (planned in September–October 2013 in Malta). He underlined the importance of this event, whose main objective would be to address recurrent issues in the small-scale fisheries sector in a comprehensive way through five thematic sessions. The five thematic sessions of the workshop, were introduced, namely: i) Current situation of artisanal fisheries in the Mediterranean and Black Sea, strategy and methodologies for effective monitoring, ii) Strategies for the co-management of artisanal fisheries, iii) Integration of artisanal fisheries within marine protected areas (MPAs), iv) Enhancing the artisanal fisheries value chain and v) Providing support and education for the establishment of a regional platform for artisanal fishermen. A tentative list of potential partners interested to co-sponsor the event was also shown.
14. In the ensuing discussions, several issues were addressed, such as: the focus not only on artisanal but also on recreational fisheries, the integration and/or management of artisanal fisheries within MPAs and the importance of sharing experiences among fishermen, the importance of the environmental effects of artisanal fisheries in the coastal zones, interactions with sea turtles, cetaceans and monk seals, and the need for mitigation measures.
15. It was proposed that one potential output of this workshop could be the establishment of a first project on artisanal fisheries for the whole region. Consequently, interested organizations, participants and stakeholders were strongly encouraged to contact the GFCM Secretariat by e-mail in order to examine modalities for their involvement in the workshop.
16. It was highlighted that the organization of the workshop could build momentum from the ongoing FAO initiative on small-scale fisheries – a technical consultation to debate about the adoption of the “FAO International Guidelines on Securing Sustainable Small-Scale Fisheries” was foreseen on 20–24 May 2013. Hence, interested parties present at the meeting were invited to participate. The outcomes of this technical consultation would be submitted to the next session of the FAO Committee on Fisheries (COFI) in 2014 and could be informed by the conclusions and recommendations of the workshop.

#### **OPENING AND ARRANGEMENTS OF THE MEETING OF THE SUB-COMMITTEE ON ECONOMIC AND SOCIAL SCIENCES (SCESS)**

17. The thirteenth session of the Sub-Committee on Economic and Social Sciences (SCESS) was attended by 41 experts from GFCM Member as well as representing the FAO, FAO Regional Projects (AdriaMed, CopeMed II and EastMed), the GFCM Secretariat, other international organizations, stakeholders and the civil society. The final list of participants is annexed under Appendix B.
18. Mr Vahdet Ünal, SCESS Coordinator, welcomed the participants and opened the meeting.

Mr Nicola Ferri, Ms Sarah Fagnani and Mr Michele Repole, all from the GFCM Secretariat, were elected rapporteurs of the meeting.

19. The agenda, which was discussed and approved with minor amendments, is reproduced in Appendix A.

#### **CASE STUDIES ON SOCIO-ECONOMIC ASPECTS AND BIO-ECONOMIC ANALYSIS IN RECREATIONAL AND SMALL-SCALE/ARTISANAL FISHERIES**

20. Mr Matthieu Bernardon, from FAO-CopeMed II, introduced to the Sub-Committee the background, methodologies and next steps relating to socio-economic indicators as applied to small pelagic fisheries in the Alboran Sea. In his presentation, he reviewed the process that was initiated within the framework of FAO-CopeMed II regarding socio-economic indicators and he pointed out in particular that for the first time a compilation of these indicators for *S. Pilchardus* and *E. Encrasicolus* fisheries was jointly attempted by three countries (i.e. Algeria, Morocco and Spain) at the “Sub-regional Working Group on Small Pelagic in the Alboran Sea”. He then went on to discuss the methodology used to carry out these tasks and announced the expected follow-up actions.
21. In the ensuing discussions, clarifications were sought as to how calculating the status of those stocks assessed by the working group from an economic point of view. It was illustrated that following a biological assessment of the resources concerned, socio and economic aspects would be also integrated in the analysis because, to a great extent, these aspects stem down from the biological status of the stocks. This would mean that whenever stock assessments are performed, the efficiency of relevant socio and economic aspects would be taken into account accordingly. However, it was questioned that relevant socio-economic data, especially social data, could be easily appraised. It was thus suggested to develop indicators that also entail socio and economic aspects. This undertaking would be also beneficial to any multiannual management plan to be elaborated by the GFCM in the future.
22. Mr Dario Pinello, from FAO EastMed, reported to the Sub-Committee on the outcomes of a study which was recently implemented by the project with a view to provide a preliminary assessment of the socio-economic situation of the Lebanese fisheries fleets through an interview-based survey conducted from March to May 2012. The information gathered showed that the Lebanese fishing fleet is mainly family-based because the owners of the vessels were directly involved in fishing activities together with their family members. Rough incomes, typical of the people occupied in the sector, were provided as well as other data relating to employment, the auction market for fishery products, the value chain, the prices and the quantities of production. A number of recommendations was also suggested in order to improve the sustainable exploitation of stocks in the future.
23. Several questions were posed by participants in order to better understand how the outcomes collected by EastMed through the questionnaire were cross-checked. In this regard, emphasis was placed on the fact that no national benchmark was available, since the survey carried out by EastMed could be to a great extent considered as the first one ever conducted in the country. Nonetheless, a precise analysis of data collected through the questionnaire enabled to figure out whether the information available was coherent and consistent. Participants agreed to attach the questionnaire used by EastMed in Appendix C. Thus, should similar initiatives be repeated in the future, lessons learnt could make it easier to ensure quality control. Considering the fact that small-

scale/artisanal fisheries are often a seasonal activity, it was stressed that time series could significantly contribute to fill the gaps relating to information available.

24. Mr Paolo Accadia, from IREPA Onlus, gave an overview of the steps adopted in the EU guidelines for providing policy options on impact assessment with a focus on bio-economic models. He clarified that bio-economic models, as well as indicators and reference points, were tools aimed at evaluating the potential effects of alternative management options and represented the quantitative part of an impact assessment process. In his view, case studies can be defined as combinations of various fisheries and management scenarios and sets of biological, economic and transversal data – depending on the bio-economic models selected – would have to be collected for producing simulations. The structure of a generic bio-economic model was described and the differences between integrated and non-integrated models highlighted. Furthermore, some basic guidelines to estimate model parameters and run simulations were also shown. Possible methods to analyze model outcomes, compare management scenarios and identify optimal policy options were discussed.
25. Enquiries were made as to whether it would be possible to also simulate the behaviors of fishermen through existing bio-economic models. It was indicated that, even though some modeling solutions to simulate fishermen behavior were incorporated into the existing bio-economic models, their reliability should be tested by carrying out specific studies. Also, it was explained that the involvement of stakeholders would have to be secured (e.g. qualitative analysis through questionnaires to stakeholders could contribute to the elaboration and improvement of fishermen behavior simulation models). Further queries pertained to the potential of bio-economic models to inform decision-making processes and to the inclusion of social indicators within their configuration. While the link between these models and decision-making processes will mainly depend on the weight stakeholders will give them in the elaboration of different management scenarios, the social dimension of fisheries already calls for more attention. Social indicators, such as employment and average wage, should thus be duly considered within the remit of the management of fisheries. Similarly, additional social indicators should be identified and taken into account. Any shift from single species stock assessments toward multi-species ones could prove beneficial.

## **DEVELOPMENTS RELATING TO SMALL-SCALE/ARTISANAL AND RECREATIONAL FISHERIES**

26. Mr Carlos Fuentesvilla, from the FAO Fisheries and Aquaculture Department, recalled that more than 90% of all fisher and fish workers were small-scale and that nearly all of them lived in developing countries. Regardless, small-scale fisheries had been often overlooked in food security and poverty reduction strategies and policies. He expounded that as a response to this problem, COFI mandated the FAO in 2011 to develop international guidelines on securing sustainable small-scale fisheries (SSF Guidelines) through a participatory process. The SSF Guidelines, among others, seek to enhance the contribution of small-scale fisheries to poverty alleviation, food and nutrition security and sustainable development. He explained that, although global in scope, their focus was particularly on developing countries, capture fisheries in marine and inland waters and both the production and post-harvest sectors. The work done so far by the FAO at various levels had resulted in a zero draft of the SSF Guidelines which was published in May 2012. Inputs received during stakeholder consultations since then were being

incorporated into draft SSF Guidelines to be made available in all six FAO languages on the occasion of a technical eConsultation to be held on 20–24 May 2013. The negotiated final text then expected to be presented during the next COFI meeting (June 2014) for approval.

27. Subsequent to the presentation, participants asked for more information on the methodology employed by the FAO to seek inputs from stakeholders, including through consultations carried out in different countries. It was expounded that, regardless of the difficulties inherent in reaching out to local communities, the involvement of Civil Society Organizations and other partners at all levels allowed FAO to touch base with 4,000 stakeholders through these consultations. Gender-related issues, inter alia, had been duly taken into account in the consultation process. The question of the definition of small-scale fisheries/artisanal was pivotal. It was observed that there could be sufficient ground to agree upon a definition of small-scale/artisanal fisheries at the regional level. With regard more specifically to the GFCM, in light of the precedent in GFCM Resolution 15/1980/1 where the term “artisanal fisheries” is employed, the SCESS decided to stick to it throughout the discussions. Regardless, it was clarified that the use of this term instead of “small-scale fisheries” was in no way prejudicial and participants conceded that it was their intention neither to choose one over the other nor to recommend for the future to actually do so.
28. Mr Michele Repole, from the GFCM Secretariat, provided a broad framework of understanding that could enhance the relevance of socio-economic features typical of artisanal fisheries. He explained that, given the present lack of clarity in existing definitions of artisanal fisheries, it appeared useful to open discussions on how social and economic aspects could be better reflected. Artisanal fisheries displayed in his view complexities that did not call for simplistic responses: many threats and weaknesses existed as well as factors that could release positive spillover effects and opportunities. Mr Repole then noted that, despite some data had been collected thus far, the impact of artisanal fisheries on coastal resources and ecosystems, as well as their human dimensions, was inadequately known at present in the Mediterranean and the Black Sea.
29. With regard to the strengths and weaknesses identified in the presentation by Mr Repole, it was noted that in the artisanal fisheries sector it could be difficult to make a clear distinction between them, in that a strength might as well become a weakness and vice-versa (e.g. artisanal fishermen could be a sentinel for IUU but they could also turn into IUU fishermen). An exchange of views on revenues generated by artisanal fisheries took place. Although criteria, including socio and economic ones, were often times the same for States, differences still remained at the national level. In this regard, reference was made to the need of identifying common parameters that would help to recognize activities falling within the umbrella of artisanal fisheries. Perhaps such an approach, which would be instrumental in defining what constitutes artisanal fisheries, could be more pragmatic and fruitful than that of proposing a common definition of artisanal fisheries.
30. Ms Susana Sainz-Trapaga, from WWF, delivered a presentation on a network of artisanal fishermen from four Mediterranean countries of the EU (MedArtNet), which was created in 2011 with the aim of achieving sustainable fisheries through co-management. She explained that its members were actively working in innovative initiatives, such as the one of the “Co-management Committee” of the sandeel fishery in Catalonia, Spain. Ms Sainz-Trapaga recalled that this Committee was created in April 2012 and was composed of four pillars: the administration (national and Catalanian), the fishing sector, scientists,

and NGOs. Also, it had full responsibility over the management of the fishery. Results obtained so far have demonstrated, according to Ms Sainz-Trapaga, how co-management schemes were crucial to ensure a sustainable exploitation of a fishing resource and compliance with the rules while even increasing fishermen profits. In concluding, she expressed the view that the expansion of MedArtNet to non-EU countries, and the consequent implementation of similar co-management schemes to the one described as adapted to the different fisheries and realities, could give the opportunity to other Mediterranean fishermen to fully participate in decision making and simultaneously contribute to achieving sustainable fishing practices.

31. In the ensuing discussions, the value that networks such as MedArtNet could have to promote co-management of fisheries was recognized, namely in light of its direct reliance on fishermen which were organized in ad hoc co-management committees and supervised both the monitoring of fisheries and compliance with the rules in place. It was expounded that the fisheries concerned by this initiative were under national jurisdiction. However, the model put forth was praised by many who stated that there could be a possibility that co-management could be applied elsewhere in the future. This will depend mainly on the requests from fishermen in other sub-regions than that concerned by MedArtNet (and to a lesser extent from other stakeholders, including local NGOs). Ultimately, it was mentioned that the degree of compliance that co-management brought about rested with the fishermen. If they failed the trust put in them, they would lose other stakeholders support and their opportunity to actively participate in the management of their own fisheries. The issue of budgetary resources could be critical to ensure that platforms such as MedArtNet could be established and prove functional in different geographical contexts. Similarly, cultural backgrounds might hinder this kind of initiative. The terms of reference of the Co-management Committee on the sandeel fishery in Catalonia are attached as Appendix D of this report.
32. Mr Jakov Dulčić presented the outcomes of the AdriaMed Technical meeting on Adriatic Sea Small-Scale Fisheries (13-14 November 2012, Split, Croatia). The meeting was attended by 19 experts from the five countries participating in the project (i.e. Albania, Croatia, Italy, Montenegro and Slovenia). He recalled the objectives of the technical meeting, namely to review on the basis of participants' experience the current knowledge and the status of small-scale fisheries in Adriatic countries, to describe the existing national monitoring systems, to have up-to-date information on the available scientific and technical knowledge in each country and on the ongoing programmes focusing on small-scale fisheries. He observed that the meeting identified some joint activities to promote sub-regional scientific cooperation which could contribute to general discussion on the small-scale fishery sector, including the re-establishment of the Working Group on Small Scale Fisheries within the framework of AdriaMed, the undertaking of case studies to characterize small-scale fisheries in the Adriatic Sea, an appraisal of critical areas (e.g. spawning and nursery areas), an inventory list of relevant data available, the development of a database with information on the new species of the Adriatic Sea and the identification and compilation of the list of species of interest.
33. With regard to the outcomes of the workshop, participants suggested that they could be considered both as useful precedents for other GFCM sub-regions as well as in view of future actions under the auspices of the GFCM. The need to also include studies on social aspects of small-scale fisheries in the work programme of the AdriaMed working group was stressed. Moreover, it was acknowledged that it could pave the way for the creation of similar platforms aimed at improving knowledge and developing scientific cooperation throughout the Mediterranean and the Black Sea. In light of the timing, the conclusion of

next AdriaMed meeting could be submitted to the forthcoming GFCM Regional Workshop on Sustainable Artisanal Fisheries.

34. Mr Giampaolo Buonfiglio, from RAC-MED, recalled the work that led to the drafting of a questionnaire to assess the socio-economic impacts of the application of fisheries management measures in relation to States under the mandate of RAC-MED through the use of indicators (such as fleet composition, level of employment, average age of fishermen, cost of fuel). From the analysis of the figures elaborated on the basis of responses received to the questionnaire, he affirmed that a downward trend in the fisheries sector appeared clearly. This included social-economic data such as the numbers of the employees. He hence concluded that the EU fisheries sector of the Mediterranean Sea in particular could be currently undergoing a structural crisis rather than a cyclical one. Thus, he encouraged the GFCM to draw the attention of States to the socio-economic ramifications of fishery policies in place.
35. Following the presentation, the methodology used by RAC-MED to collect data was explained. Several issues, including the ongoing crisis of the fisheries sector and IUU were touched upon. It was anticipated that RAC-MED would try in the future to process the data in order to separate information pertaining to industrial fisheries from those linked to artisanal fisheries and a more precise analysis should hence follow. This would hinge also on the inputs provided to RAC-MED by States concerned. The level of detail related thereto may vary. For the time being, and pending an extrapolation of the data relating to artisanal fisheries, the view was expressed that broadly speaking there were several commonalities between industrial and artisanal fisheries. Trends could hence be already identified – as far as RAC-MED countries are concerned – in relation to, inter alia, employment, cost of fuels, production, safety nets, etc. This would be however without prejudice to the real situation pertaining to artisanal fisheries which preventively requires the collection and analysis of reliable socio and economic data.
36. Mr Sezgin Tunca, from the Muğla University of Turkey, Faculty of Fisheries, presented the social and economic background of an ongoing study on marine recreational fishing in Foça and Gökova special environmental protected areas of Turkey. He stated that in this study, boat-based and shore-based recreational fishermen and recreational fishing tour operators in Foça and Gökova, were addressed via questionnaires. The replies received were assembled to put forth a snapshot on the economic impact of recreational fishing activity and calculating its economic value via contingent valuation and travel cost methodologies aimed at elaborating better management practices.
37. Participants noted that this research was undertaken in areas that were protected (both land and sea) and which included several no take zones. All the regulations that were in force in this region, with regard to fisheries, were duly taken into account. Consequently, recreational charter boats abode by regulations in place. The thrust of the methodology reviewed through the research revealed that recreational fishermen, who in some instances were former fishermen, would be ready to pay a fee for exercising recreational activities. Expanding the scale of the research could also enable to establish the amount of the fee and consequently appraise the real value of recreational fisheries. Management could be triggered by the outcomes of the research undertaken and should be hence encouraged.
38. There could be also a need to develop a common and harmonized scientific monitoring framework protocol for recreational fisheries with regard to basic indicators. For this purpose, a basic homogeneous regulation of recreational fishing providing for a shared approach and homologated data might be necessary. It was specified that, although there

could be common aspects relating to both artisanal and recreational fisheries (e.g. harbors, targeted species, retirement policies, market aspects), they should be considered separately, namely in relation to legal frameworks to be developed.

## **WORKING SESSION FOR REVIEWING THE SOCIO-ECONOMIC VARIABLES OF THE NEW GFCM DATA COLLECTION REFERENCE FRAMEWORK (DCRF)**

39. Ms Evelina Sabatella, from the GFCM Secretariat, introduced the WP 2 of the GFCM FWP aimed at facilitating the development of a region-wide, compatible and integrated data collection and information system for the Mediterranean and the Black Sea. She then went on to detail the two actions currently under implementation (critical assessment of the GFCM fisheries data collection framework and assessment of the compatibility between national data collection programs and GFCM requirements). Also, she summarized the results of the assessment of Task 1.3 (economic data) carried out on data received by the GFCM Secretariat as follows:
- Data compliance status: only 13 Members states out of 23 submitted task 1.3 data at least for one year (over the period 2008-2011).
  - Time series consistency: 6 Members submitted data for only one year, 3 Members covered two years and 4 Members sent data for 3 and 4 years. Therefore no time series analysis was possible at this stage.
  - Data coverage in terms of fleet segments: the fleet segmentation appeared to be rather homogenous among the Members having submitted task 1.3 data. Polyvalent small scale vessels, purse seiners, trawlers and polyvalent vessels over 12 meters were present in all data sets.
  - Data completeness: only 6 Members submitted complete data sets covering all parameters required by Task 1.3. The remaining 7 Members only submitted data related to capacity indicators, landing value and landing weight and in some cases employment.
40. During the discussions, it was indicated that Task 1.3 data should be submitted every year to the GFCM Secretariat. However, as this could be burdensome, it was advised that a bulk of economic data could be collected every year whereas some others might not require an early exercise of collection for submission. According to the new methodology put forth by the GFCM Secretariat through the DCRF, Members would be given the possibility to make comments and suggestions so that similar proposals could be presented.
41. With regard to the DCRF, a draft proposal was cursorily presented to participants in order to collect their views and inform the ongoing work by the GFCM Secretariat. A meeting held in December at GFCM HQs agreed as first step of this process on the preparation of a document by a consultant, in charge of:
- Reviewing current GFCM data requirements;
  - Reviewing data collection frameworks implemented in other RFMOs (ICCAT, IOTC, NAFO, CCMALR);
  - Proposing a structure of the GFCM DCRF.

The proposal elaborated by the consultant could be ultimately considered as an alternative to the current GFCM data requirements concerning fleet data, Task 1 data and other information on specific protected species. The datasets could be structured around the following five modules with the specified purposes:

| <i>Module</i> | <i>Data concerned</i> | <i>Purpose</i>                                                                                                                                                           | <i>Link with current data reporting framework</i> |
|---------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 1             | Annual catch data     | Dissemination of macro-statistics<br><br>Information on biomasses extracted yearly from natural stocks by fleet segments and by area                                     | STATLANT 37A, Task 1, task 1.4                    |
| 2             | Fishing vessels       | Dissemination of macro-statistics<br><br>Information on fishing capacity of GFCM fleets by segment, including metrics for estimating fishing effort<br><br>RPOA Capacity | Task 1.1, task 1.3, task 1.2, task 1.4            |
| 3             | Catch and effort data | Catches obtained for a given amount of effort (CPUE) raised to the total catches (complementary to module 1)                                                             | Task 1.4                                          |
| 4             | Length frequency data | Pivotal additional dataset for running age-structured models                                                                                                             | Task 1.5                                          |
| 5             | Socio-economic data   | Dissemination of macro-statistics<br><br>Data used in bio-economic models useful to assess the impact of management measures                                             | Task 1.3                                          |

42. It was clarified that the five modules in the table, which would constitute the basis of the DCRF for the GFCM, could be completed independently. SCESS will endeavour to convey comments so that the proposal could be revised/improved by SAC, by the Task Force and finally by the Commission at its 37<sup>th</sup> Session in May 2013 (Split, Croatia).

## **RISING ISSUES TO BE ADDRESSED BY THE SCESS**

### ***Climate Change***

43. Three presentations were delivered to the Sub-Committee in connection with climate change. Ms Cassandra De Young, from the FAO Fisheries and Aquaculture Department, introduced a global perspective on building resilience and reducing vulnerabilities to climate change in the fisheries and aquaculture sector. Ms De Young noted that over 500

million people were dependent on fisheries and aquaculture for their livelihoods and that fishery's products provided essential nutrition for 4 billion people. However, global environmental change was increasingly affecting biological processes and human choices, including fisheries and aquaculture systems. Biophysical changes caused by global warming, such as ocean currents and storm frequency, impact the sector directly through, for example, changes in productive capacity and cycles of aquatic species. According to Ms De Young, the social and economic implications of these changes are just beginning to be understood. Nonetheless, these changes might severely undermine the capacity of communities and ecosystems to withstand the multiple drivers of change faced by the sector. In order to respond to these impacts, there was a need to adapt to climate change and ocean acidification through broader vulnerability reduction, such as planning adaptation actions across sectors, strengthening ecological, economic and social resilience through the ecosystem approach to fisheries, relying on technological change, and improving preparedness and early warning systems.

44. On the issue of climate change, another presentation was delivered by the SCESS Coordinator on the economic impacts of puffer fish along the Turkish coasts. This presentation underlined that whereas some lessepsian species had economic benefits on the Mediterranean fisheries, others caused adverse economic effects. Among the latter, tetrodotoxin carrying *L.sceleratus*, which was first recorded along Turkish coasts in 2003, was the most significant. Mr Ünal reminded participants that puffer fish landing was banned in Turkey. However, because this species caused monetary damages to fishing gears and to the catch caught in those gears, he had attempted to determine the economic impacts to be borne by fishermen through a questionnaire used to interview them. Mr Ünal elaborated on the result of this survey, which revealed that 79 percent of fishing gear were damaged by puffer fish, with average damage per vessel per year amounting to 913 TRY (378 EUR) /vessel/year for those using longlines only, 921 Turkish Lira (TRY) /vessel/year (390 EUR) for gill nets-trammel nets only, and 1339 TRY /vessel/year (566 EUR) for both. Fishing incomes were lost due to puffer fish presence as well (by 16 percent for those using longlines only, 15 percent for gill nets-trammel nets only and 12 percent for both. It should be noted that losses are not limited with damaged fishing gear). Mr Ünal specified that although the figures for these losses were not easy to determine and his study did not enable to provide an overall quantitative set of results in terms of economic loss caused by puffer fish, it could nonetheless (i) support decision-makers to be abreast on the damage suffered by the fishermen and (ii) inform the drafting of national policies addressing both prevention needs and compensation requests for the losses thereof.
45. A third presentation on the issue of climate change was delivered by Mr Scander Ben Salem, from the Tunisian INSTM, and revolved around a work which was undertaken within the framework of the CIRCE project (Climate Change and Impact Research: the Mediterranean Environment) funded by the EU Commission. The main conclusions of this work, as summed up by Mr Ben Salem, were that the Gulf of Gabès waters had been warming, also at higher rates, since 2000. As a consequence of water warming, alien marine species were projected to increase. This phenomenon was also an important driver that led to a decrease in the production of indigenous species, specifically the caramote prawn (most important fishery in the gulf of Gabès). According to observations, the summer season was found to elongate, leading to an extended "tourist season". The number of days "favourable" for tourism activities deduced from the simulations had decreased whereas those just "acceptable" had increased. Such changes were accentuated in summer; at the opposite side, the number of "favourable" days had increased in winter.

Finally, Mr Ben Salem pointed out that socio-economic impacts of weather conditions changes on tourism activities were estimated based on model simulations. They showed that capital, revenues and employment losses had increased after 2000.

46. As a result of the open debate on climate change, coordination between SCESS and SCMEE was encouraged so to ensure that the issue of climate change could be adequately considered by the GFCM in the future. The link existing in particular between invasive species and climate change was noted and possible options available to counter their impacts were briefly examined (e.g. bounty system). More reflection on climate change related issues, including socio-economic impacts, could be beneficial for the work of SAC.

### ***IUU fishing***

47. Mr Ferri, from GFCM Secretariat, provided a short upgrade on GFCM activities relating to IUU. He mentioned in particular the upcoming workshop on IUU fishing in the Black Sea to be organized by the GFCM together with the Black Sea Commission in Istanbul (25–27 February 2013). He stressed that the workshop was expected to draw up a roadmap to fight IUU fishing in the Black Sea. In his view, this initiative could be instrumental to provide a clearer picture of the socio-economic dimension of IUU fishing in this area. Following the intervention by Mr Ferri, three presentations were delivered to the Sub-Committee in connection with IUU fishing.
48. The first one, by Mr Ünal, SCESS Coordinator, focused on a case study for the Gökova Bay, Turkey, on combating IUU. In his view, a remarkable result had been achieved against IUU in Gökova Bay whereas a series of measures still needed be taken to cope with IUU. Therefore, Mr Ünal suggested focusing on ranger systems, land-based inspections, public awareness and stronger monitoring, control and surveillance system in order to have better results from combating IUU, not only in the Gökova Bay, but also in other GFCM Members.
49. Subsequently, Mr Amir Marashi and Mr Fabrizio De Pascale, from Uila Pesca, zeroed in on the connection between IUU fishing and international labor law. They presented a study on "IUU fishing and its relation with the rights of fishworkers"<sup>1</sup> that analyzed the existing link between IUU fishing and the concept of "decent work" as defined in the ILO Work in Fishing Convention, 2007 (C 188). The study also analyzed the last developments on this subject, including the following: in 2010, the EU Council authorized Member States to ratify the ILO C188; in 2011 the European Parliament adopted a Resolution on "combating IUU fishing" in which it "emphasises that IUU fishing constitute unfair competition for fishermen and creates economic difficulties for fishing communities"; in 2011 the ILO Action Plan 2011–2016 for the ratification and effective implementation of the C188 called the international organizations concerned, such as the FAO, for cooperation on these objective. The speakers wrapped up their presentation by expressing the opinion that international law in relation to fisheries management had, until now, underestimated the importance of the "third dimension" of the problem and that, unless the rights of fish workers were recognized and properly protected, according to the ILO Convention, no amount of legislation would succeed to eradicate IUU fishing.
50. Finally, Mr Giacomo Ottonello, from Federpesca, informed the Sub-Committee about the

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<sup>1</sup> Available online at: <http://www.uilapesca.eu/public/eventi/20121201/imm/home.html>

point of view of his organization on the socio-economic impacts of illegal fishing on Mediterranean countries. He highlighted the present disadvantages European vessels were faced with and encouraged cooperation as a possible viable solution to improve competition.

51. In the following discussions, the importance of the market was underlined as an instrument that could improve ongoing efforts deployed at regional level to fight IUU fishing. Market-based solutions would be cost-effective unlike other measures (e.g. MCS) which, although exceedingly useful to counter IUU fishing, are expensive at present, particularly for developing States. Furthermore, the importance of social aspects of IUU fishing as a paramount issue to analyze in the future was recognized, including through the opportunity of encouraging GFCM Members to consider the importance of the ratification of the ILO Convention.

## CONCLUSIONS AND RECOMMENDATIONS

52. The following general conclusions were drawn by the SCESS:

- There is a growing need to account for social and economic analysis into ongoing biological assessments of fisheries;
- A “learning-by-doing approach” to integrate socio-economic analysis into fisheries management could be appropriate;
- Management processes, including those leading to the elaboration of sub-regional multiannual management plans, could be based on bio-economic approaches that entail biological, economic and social variables;
- In the absence of a globally accepted definition of “small-scale/artisanal fisheries” national definitions should be all considered valid;
- Co-management strategies to manage artisanal fisheries should be encouraged and developed among neighbouring countries on the basis of existing practices;
- The DCRF has to rely more than Task 1.3 did on socio-economic data;
- A specific socio-economic analysis and evaluation approach for artisanal and recreational fisheries would be required;
- The socio-economic impacts of climate change were recognized;
- IUU fishing has significant socio economic impacts on fish stocks, fishers and sustainability of the overall sector;
- Working conditions of fishermen and their right to a decent work, as defined within the framework of ILO, and their connection with IUU fishing have been overlooked by RFMOs.

53. The following general recommendations were drawn by the SCESS:

- Review current methodologies on socio-economic analysis (e.g. AdriaMed, CopeMed, EastMed) in order to develop a common methodology for improving fisheries management. To this end, on the basis of the recent work done by EastMed as well as that of other FAO Regional Projects, a working group will be established with the aim of defining a possible common methodology to be submitted to next SCESS (TORs are reproduced in Appendix E);
- The FAO Fisheries and Aquaculture Department and the GFCM will work closely to

implement and follow up on the FAO Small Scale Fisheries Guidelines in the GFCM Area;

- An ad hoc working group will be convened before the GFCM Regional Workshop on Sustainable Artisanal Fisheries to discuss the criteria (e.g. the scale of vessels, the type of fishing gear, etc.) to be recommended for the purpose of defining what constitutes small scale/artisanal fisheries and with a view of making proposals for the consideration of its GFCM Regional Workshop on Sustainable Artisanal Fisheries (TORs are reproduced in Appendix E);
- A draft conceptual note on recreational fisheries to be prepared by Mister Oscar Sagué Pla will be circulated for comments to the SAC and forwarded to the partners of the GFCM Regional Workshop on Sustainable Artisanal Fisheries. This note will explain the importance of the sector and priorities to be addressed and will identify possible connections with artisanal fisheries in order to understand if a thematic session could be added to the workshop; if that would not be possible, a separate regional workshop on recreational fisheries should be convened, possibly back to back with the GFCM Regional Workshop on Sustainable Artisanal Fisheries;
- SCESS agreed on the need to involve artisanal fishermen in fisheries management through co-management schemes. The exchange of experiences on co-management among Mediterranean fishermen should increase the understanding on its potential in the region. Ms Susana Sainz-Trapaga will prepare a study on the creation of the Co-management Committee on the sandeel fishery in Catalonia, and the work being currently carried out by such Committee, to be submitted to SAC so to be considered as a reference case study that could be replicated and adapted in other contexts;
- An ad hoc working group on recreational fisheries will be established (TORs are reproduced in Appendix E);
- Mr Mohammed Malouli Idrissi was invited to coordinate the preparation of a paper concerning the review of socio and economic variables in the Task 1.3 to be submitted to the attention of SAC; this paper will be validated by a small group through the creation of a dedicated SharePoint portal before being submitted to the SAC;
- A transversal session between SCMEE and SCESS on the impacts of climate change is to be held in 2014; documents will be prepared ahead of the meeting on selected case studies. Mr Vahdet Ünal and Mr Jakov Dulčić will prepare papers on socio-economic impacts of selected invasive species in the GFCM Area;
- Mr Sezgin Tunca was invited to prepare a study on methodologies used for economic valuation of recreational fisheries to be considered in selected areas of the GFCM;
- In order to prevent, reduce and compensate for the losses caused by puffer fish in the Eastern Mediterranean, data on the impacts of this species should be collected and submitted to the transversal session between SCMEE and SCESS in 2014 for examination;
- A study on the connection between IUU fishing and decent work as defined in the “ILO 2007 C 188 Work in Fishing Convention” to be drafted ahead of the 37<sup>th</sup> GFCM Session by Mr Amir Marashi and Mr Fabrizio De Pascale, will be presented to GFCM Members to encourage them to ratify this convention;
- To facilitate the work of the sub-committee the SCESS SharePoint portal will remain open.

## **2013-2014 SCESS WORK PLAN**

54. The SCESS suggested that dates and venues of possible meetings of the proposed three working groups be identified subsequent to the decisions by the 37<sup>th</sup> Session of the Commission to establish said working groups. In addition, it agreed to undertake the following activities during the next intersessional period:

- Preparation of the following documents:
  - Conceptual note on recreational fisheries;
  - Paper concerning the review of socio and economic variables in the Task 1.3 to be validated by a small group through a dedicated SharePoint platform;
  - Two papers concerning socio-economic impacts of selected invasive species in the GFCM Area;
  - Study on reviewing methodologies for economic valuation of recreational fisheries in general;
  - Study on the connection between IUU fishing and decent work;
  - Paper concerning the creation of the Co-management Committee on the sandeel fishery in Catalonia and the work currently carried out by such Committee.
- Organization of the following meetings:
  - GFCM Regional Workshop on Sustainable Artisanal Fisheries;
  - If a thematic session dedicated to recreational fisheries cannot be added to this workshop, a regional workshop on recreational fisheries, possibly back to back with the GFCM Regional Workshop on Sustainable Artisanal Fisheries, if a thematic session dedicated to recreational fisheries cannot be added to the first workshop;
  - Transversal session between SCMEE and SCESS on the impacts of climate change, with special emphasis on socio-economic aspects of invasive species in the GFCM Area.

## **NOMINATION OF THE NEW SCESS COORDINATOR**

55. The GFCM Secretariat and the subcommittee acknowledged and expressed gratitude for the impressive work done by Mr Vahdet Ünal in the last four years as a coordinator of the SCESS and unanimously proposed the nomination of Mr Scander Ben Salem, from the Tunisian INSTM, as new coordinator of the SCESS.

## **ANY OTHER MATTERS**

56. No matters were flagged up in addition to those discussed during the meeting.

## **DATE AND VENUE OF THE NEXT MEETING**

57. The date and venue of the 2014 SAC Sub-Committees meeting will be decided by the SAC.

## **ADOPTION OF THE REPORT**

58. The conclusions and recommendations were adopted on 20 February 2013. The whole report was adopted by e-mail on 4 March 2013.

**AGENDA**

1. Opening and arrangement of the Sub-Committee meetings
2. Transversal session: review of transversal issues (chaired by the SAC chairperson)
3. Opening, arrangement of the SCESS meeting and adoption of the agenda
4. Case studies on socio-economic aspects and bio-economic analysis in recreational and small scale/artisanal fisheries
5. Developments relating to recreational and small scale fisheries
6. Working session for reviewing the socio-economic variables of the new GFCM Data Collection Reference Framework (DCRF)
7. Rising issues to be addressed by the SCESS
8. Conclusions and recommendations
9. 2012 SCESS workplan
10. Any other matters
11. Date and venue of the next meeting
12. Adoption of the report

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## QUESTIONNAIRE BY EASTMED

|                                                  |                        |                                        |                                     |
|--------------------------------------------------|------------------------|----------------------------------------|-------------------------------------|
| <b>Vessel Code</b><br>رقم تسجيل الزورق           |                        |                                        | <b>Name of Vessel</b><br>اسم الزورق |
| <b>Date of interview</b><br>تاريخ اجراء المقابلة |                        |                                        |                                     |
| <b>Name of interviewer</b><br>اسم الباحث         |                        |                                        |                                     |
| <b>Name of interviewee</b><br>اسم المستفتي       |                        |                                        | <b>Tel. Number</b><br>رقم الهاتف    |
| <b>Owner</b><br>مالك                             | <b>Partner</b><br>شريك | <b>% Partnership</b><br>نسبة الشراكة % | <b>Skipper</b><br>رئيس              |
| <b>Reference period</b><br>الفترة المرجعية       |                        |                                        | <b>01/01/2011 - 31/12/2011</b>      |

| <b>VARIABLE GROUP</b><br>تصنيف المعطيات                                                                     | <b>VARIABLE</b><br>المعطيات                                                                                               | <b>UNIT</b><br>الوحدة                                                                  |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>A – Effort</b><br>الجهد                                                                                  | Fishing days (total per year)<br>مجموع ايام العمل في السنة                                                                | Number (ANNUAL)<br>يوم سنويا                                                           |
|                                                                                                             | Fishing hours (daily average on 24-hours basis)<br>معدل ساعات العمل اليومي خلال 24 ساعة                                   | Number (DAILY)<br>ساعة يوميا                                                           |
|                                                                                                             | Main gear used ( main income generator)<br>معدات الصيد الاساسية (اكبر مردود)                                              | Name of the gear<br>الاسم                                                              |
| <b>Lebanese Republic</b><br><b>Ministry of Agriculture</b><br><b>Department of Fisheries &amp; Wildlife</b> | <b>EastMed Project</b><br>مشروع ايستمد                                                                                    | <b>FAO</b><br>منظمة الفاو                                                              |
|                                                                                                             |                                                                                                                           |                                                                                        |
|                                                                                                             |                                                                                                                           |                                                                                        |
|                                                                                                             | <b>Socio-Economic Questionnaire for Marine Fishing Sector</b><br>استمارة دراسة اقتصادية-اجتماعية لقطاع صيد الاسماك البحري |                                                                                        |
|                                                                                                             |                                                                                                                           | <b>الجمهورية اللبنانية</b><br><b>وزارة الزراعة</b><br><b>دائرة الصيد المائي والبري</b> |

| VARIABLE GROUP<br>تصنيف المعطيات         | VARIABLE<br>المعطيات                                                                                          |                                                 |                                       | Skipper<br>الربان | Fisher 1<br>صياد 1 | Fisher 2<br>صياد 2 | Fisher 3<br>صياد 3 | Fisher 4<br>صياد 4 | Fisher 5<br>صياد 5 |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| B - Socio/Demographic<br>اجتماعية/سكانية | Vessel ownership (Is the owner engaged on the vessel?)<br>هل مالك الزورق يعمل على الزورق                      | YES<br>نعم                                      | NO<br>كلا                             |                   |                    |                    |                    |                    |                    |
|                                          | Is fishing your main income generator?<br>هل مدخولكم الاساسي هو من صيد الاسماك؟                               | YES<br>نعم                                      | NO<br>كلا                             |                   |                    |                    |                    |                    |                    |
|                                          | Engaged crew per vessel (daily average)<br>عدد البحارة على الزورق                                             | Total Number<br>العدد الاجمالي                  |                                       |                   |                    |                    |                    |                    |                    |
|                                          |                                                                                                               | Part Time<br>دوام جزئي<br>(Nr)<br>عدد           | Full Time<br>دوام كامل<br>(Nr)<br>عدد |                   |                    |                    |                    |                    |                    |
|                                          | Age of the crew<br>عمر البحارة                                                                                | Number (one figure for each crew member)<br>عدد |                                       |                   |                    |                    |                    |                    |                    |
|                                          | Education level of the crew<br>مستوى البحارة التعليمي<br>0-امّي<br>1-ابندائي<br>2-متوسط<br>3-ثانوي<br>4-جامعي | Number (one figure for each crew member)<br>عدد |                                       |                   |                    |                    |                    |                    |                    |
|                                          | Household size<br>حجم العائلة                                                                                 | Number (skipper)<br>عدد (رئيس)                  |                                       |                   |                    |                    |                    |                    |                    |
|                                          | Number of wives<br>عدد الزوجات                                                                                | Number (skipper)<br>عدد (رئيس)                  |                                       |                   |                    |                    |                    |                    |                    |
|                                          | Age of the children<br>اعمار الاولاد والبنات                                                                  | Number (skipper)<br>عدد (رئيس)                  |                                       | Child 1           |                    |                    |                    |                    |                    |
| Child 2                                  |                                                                                                               |                                                 |                                       |                   |                    |                    |                    |                    |                    |
| Child 3                                  |                                                                                                               |                                                 |                                       |                   |                    |                    |                    |                    |                    |

|  |  |  |          |  |  |  |  |  |  |
|--|--|--|----------|--|--|--|--|--|--|
|  |  |  | Child 4  |  |  |  |  |  |  |
|  |  |  | Child 5  |  |  |  |  |  |  |
|  |  |  | Child 6  |  |  |  |  |  |  |
|  |  |  | Child 7  |  |  |  |  |  |  |
|  |  |  | Child 8  |  |  |  |  |  |  |
|  |  |  | Child 9  |  |  |  |  |  |  |
|  |  |  | Child 10 |  |  |  |  |  |  |

| VARIABLE GROUP<br>تصنيف المعطيات         | VARIABLE<br>المعطيات                                                                                             |                                |          | Skipper<br>الريان | Fisher 1<br>صيا 1 د | Fisher 2<br>صيا 2 د | Fisher 3<br>صيا 3 د | Fisher 4<br>صيا 4 د | Fisher 5<br>صياد 5 |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------|----------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| B - Socio/Demographic<br>اجتماعية/سكانية | Education level of the children<br>مستوى الاولاد التعليمي<br>0 امي<br>1-ابندائي<br>2-متوسط<br>3-ثانوي<br>4-جامعي | Number (skipper)<br>عدد (رئيس) | Child 1  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 2  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 3  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 4  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 5  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 6  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 7  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 8  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 9  |                   |                     |                     |                     |                     |                    |
|                                          |                                                                                                                  |                                | Child 10 |                   |                     |                     |                     |                     |                    |
|                                          | Household members engaged in fishing<br>عدد افراد العائلة الذين يعملون في الصيد                                  | Number (skipper)<br>عدد (رئيس) |          |                   |                     |                     |                     |                     |                    |

| VARIABLE GROUP<br>تصنيف المعطيات                                        | VARIABLE<br>المعطيات                       | Annual Amount<br>القيمة السنوية |
|-------------------------------------------------------------------------|--------------------------------------------|---------------------------------|
| C – Economic/commercial (sale of fish)<br>اقتصادية/تجارية (بيع الاسماك) | Auction<br>المزاد                          | %                               |
|                                                                         | Wholesaler<br>تاجر الجملة                  | %                               |
|                                                                         | Direct_Fishmonger<br>البيع المباشر - مسمكة | %                               |
|                                                                         | Direct_Retail<br>البيع المباشر - مفرق      | %                               |
|                                                                         | Direct_Restaurant<br>البيع المباشر - مطعم  | %                               |
|                                                                         | Other<br>مختلف                             | %                               |
|                                                                         | Total                                      | 100%                            |

| VARIABLE GROUP<br>تصنيف المعطيات                                                                 | VARIABLE<br>المعطيات                                                 | VARIABLE DESCRIPTION                                    |                                                                                                                |                     | Annual Amount<br>القيمة السنوية |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------|
| D- Detailed description of Economic/costs variables<br>الوصف التفصيلي للمعطيات الاقتصادية/الكلفة | Energy cost<br>كلفة الطاقة                                           | Fuel costs<br>كلفة المازوت/البنزين                      | Diesel<br>المازوت                                                                                              | Gasoline<br>البنزين | LL<br>ليرة لبنانية              |
|                                                                                                  |                                                                      |                                                         | Fuel consumption (liters)                                                                                      |                     |                                 |
|                                                                                                  |                                                                      | Lubricants costs<br>كلفة الزيوت                         |                                                                                                                |                     | LL<br>ليرة لبنانية              |
|                                                                                                  | Crew share<br>حصة البحارة                                            | Remuneration<br>مدخول البحارة                           | Lump sum<br>دخل مقطوع                                                                                          | % share<br>حصة %    | LL<br>ليرة لبنانية              |
|                                                                                                  |                                                                      |                                                         | Social security, social costs and pension contributions<br>الضمان الاجتماعي / الكلفة الاجتماعية / نهاية الخدمة |                     |                                 |
|                                                                                                  |                                                                      | Crewmembers insurance<br>التأمين على البحارة            |                                                                                                                |                     | LL<br>ليرة لبنانية              |
|                                                                                                  |                                                                      | Repair and maintenance costs<br>الصيانة والتصليلات      | Maintenance and repairs to vessel<br>صيانة وتصليل الزورق                                                       |                     |                                 |
|                                                                                                  | Maintenance and repairs to gear<br>صيانة وتصليل معدات الصيد          |                                                         |                                                                                                                | LL<br>ليرة لبنانية  |                                 |
|                                                                                                  | Other repair and maintenance costs<br>كلفة الصيانة والتصليلات الاخرى |                                                         |                                                                                                                | LL<br>ليرة لبنانية  |                                 |
|                                                                                                  | Other operational costs<br>الكلفة العمالية                           | Purchasing ropes, hooks, and warps<br>شراء حبال وصنابير |                                                                                                                |                     | LL<br>ليرة لبنانية              |
|                                                                                                  |                                                                      | Purchasing food<br>شراء الطعام                          |                                                                                                                |                     | LL<br>ليرة لبنانية              |

|                                                                                                             |                                                                     |                                                                                                                |                                           |                    |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------|
|                                                                                                             | الاجرى                                                              | Purchasing bait<br>شراء الطعم                                                                                  | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Purchasing other consumable materials<br>شراء المواد الاستهلاكية الاخرى                                        | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Other operational costs<br>الكلفة العملائية الاخرى                                                             | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             | Commercial costs<br>الكلفة التجارية                                 | Fishmarket or Wholesaler's commission<br>كومسيون المزداد او بائع الجملة                                        | % of gross value<br>% من القيمة الاجمالية | LL<br>ليرة لبنانية |
|                                                                                                             |                                                                     | Transportation of the fishing production (from vessel to place of selling)<br>كلفة نقل الاسماك الى اماكن البيع |                                           | LL<br>ليرة لبنانية |
|                                                                                                             |                                                                     | Purchasing ice<br>كلفة شراء الثلج                                                                              |                                           | LL<br>ليرة لبنانية |
|                                                                                                             |                                                                     | Purchasing boxes and packages<br>كلفة شراء الصناديق او اوعية التعبئة                                           |                                           | LL<br>ليرة لبنانية |
| Other commercial costs<br>الكافة التجارية الاخرى                                                            |                                                                     | LL<br>ليرة لبنانية                                                                                             |                                           |                    |
| <b>VARIABLE GROUP</b><br>تصنيف المعطيات                                                                     | <b>VARIABLE</b><br>المعطيات                                         | <b>VARIABLE DESCRIPTION</b>                                                                                    | <b>Annual Amount</b><br>القيمة السنوية    |                    |
| <b>D- Detailed description of Economic/costs variables</b><br><br>الوصف التفصيلي للمعطيات الاقتصادية/الكلفة | Fixed costs<br>الكلفة الثابتة                                       | Book-keeping<br>مسك الدفاتر/الحسابات                                                                           | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Vessel insurance<br>تأمين الزورق                                                                               | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Legal expenses<br>الكلفة القانونية                                                                             | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Bank expenses<br>كلفة المصرف                                                                                   | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Banking interests<br>فوائد القروض                                                                              | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Annual quota fishermen associations<br>الكلفة السنوية للتعاونية/التقابة                                        | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Dock expenses (water, electricity)<br>كلفة رسوم الزورق في المرفأ (مثل الماء والكهرباء)                         | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Fishing license renewal<br>كلفة تجديد رخصة الصيد                                                               | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Costs of ministry of Transport<br>كلفة وزارة النقل                                                             | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Other fixed costs<br>الكلفة الثابتة الاخرى                                                                     | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             | Investments in physical capital<br>كلفة الاستثمار في الاصول الثابتة | Purchasing engine<br>كلفة شراء محرك                                                                            | LL<br>ليرة لبنانية                        |                    |
|                                                                                                             |                                                                     | Purchasing fishing gears<br>كلفة شراء معدات الصيد                                                              | LL<br>ليرة لبنانية                        |                    |
| Purchasing equipment (mechanical,                                                                           |                                                                     | LL                                                                                                             |                                           |                    |

|  |  |                                                                                     |                    |
|--|--|-------------------------------------------------------------------------------------|--------------------|
|  |  | hydraulic, electrical equipment)<br>كلفة معدات الاخرى هيدروليكية/ميكانيكية/كهربائية | ليرة لبنانية       |
|  |  | Other investments<br>كلفة استثمارية اخرى                                            | LL<br>ليرة لبنانية |
|  |  |                                                                                     |                    |
|  |  | Current value of vessel<br>القيمة الحالية للزورق                                    | LL<br>ليرة لبنانية |

\*All costs should be considered as 'Gross costs'

| VARIABLE GROUP<br>تصنيف المعطيات | VARIABLE<br>المعطيات                                                | Average Daily Amount |
|----------------------------------|---------------------------------------------------------------------|----------------------|
| E – Landings<br>كمية الصيد       | Live weight of daily landing (the average catch of one fishing day) | Kg<br>كلغ            |
|                                  | Gross value of daily landing (the average value of one fishing day) | LL<br>ليرة لبنانية   |

| F- Comments of Fishermen<br>ملاحظات الصيادين |
|----------------------------------------------|
|                                              |

Signature of Interviewee  
توقيع المستفتى

### Terms of Reference Comité de Cogestion de la Sonsera

The Mediterranean sandeel fishery is carried out traditionally by 25 artisanal boats scattered around 6 fishing ports in the northern coast of Catalonia, North of Barcelona. Boats operate on a daily basis and landings are entirely devoted to direct human consumption, as the species is highly appreciated in the region and fetches a good price in the local markets. Total catches averages less than one thousand tons per year.

The Co-management Committee of the Catalonian Sandeel Fishery was formally created on 26 April 2012 with the specific mission to ensure a sustainable activity of the fishery. The Committee is composed of representatives of five main pillars: fishermen, Catalan authorities, Spanish central authorities, scientists and NGOs, all on equal footing with respect to decision-making regarding the rules and their implementation. A Permanent Commission made of ten members (two per pillar) meets at least once a month; decisions are taken by consensus whenever possible and at least by a majority of seven votes. The fishery is currently being subject of a scientific study to accurately evaluate the state of the stock and its impact on the ecosystem.

The functions of the Co-management Committee are, among others:

- Manage the fishing activity by following the criteria established by the authorization of the activity during the current scientific study and during the implementation of the management plan.
- Propose and coordinate the scientific studies needed for the evaluation and maintenance of the target populations and for the assessment of the impact of the activity on other fisheries, etc.
- Participate in the follow up of the compliance of the management rules during the current scientific study and during the implementation of the management plan and, in case of infringement, propose adequate sanctions.
- Propose and inform the European Commission, through the pertinent official channel, the Spanish administration, on issues related to the development of the activity and the implementation of the management plan and on any future modifications. The development of the scientific study and that of the management plan should be dynamic and open to potential modifications related to the technical and scientific data being obtained during its implementation.
- The Spanish administration will inform without delay on issues related to the management plan of the species in its dialogue with the European Commission.

About the Co-management Committee and its Permanent Commission:

- The Co-management Committee will only meet under extraordinary situations. The functions described above will be carried out in general by the Permanent Commission, which will have the responsibility to convene the plenary of the Co-management Committee when required by two or more of its members.
- Members of the Co-management Committee wishing to attend a meeting of the Permanent Commission may do so, after previous application to the Secretariat of the Co-management Committee, as observers. The number of observers will be limited to three observers per meeting.

- The main role of the Permanent Commission of the Co-management Committee is the follow up of the agreements carried out by the Co-management Committee and to take decisions about all technical issues related to the development of the fishing activity and any other issue if assigned to it.
- The permanent Commission will be composed by ten members, two from the Spanish administration, two from the Catalanian administration, two from the National Institute of Marine Sciences, two from environmental NGO and two from the fishing sector targeting sandeel. Each member has the right to one vote.
- The agreements of the Permanent Commission will be taken by consensus. If not possible to reach consensus, a minimum of seven votes will be necessary to adopt any proposal. Dissident votes will be reflected in the act of the respective meetings.

### **Terms of Reference for the Working Group on “Small-Scale/Artisanal fisheries”**

Small scale/artisanal fisheries provide support for thousands of lives and contribute to food security and poverty reduction in many Mediterranean countries. The important role of small scale/artisanal fisheries in the socio-economic development and the challenges that hinder its proper organization and operation have received increasing attention in recent years by both coastal countries, regional commissions and international organizations involved directly or indirectly in the fishing sector. With the same aim, the GFCM has scheduled its first Regional Workshop on Sustainable Artisanal Fisheries to be held in Malta (September - October 2013). SCESS participants agreed on the organisation of an ad hoc working group to discuss minimum agreed criteria to be recommended to define small scale/artisanal fisheries, the definition of a framework for the collection of social and economic data and the development of standard methodology to analyse the socio-economic dimension of small-scale/artisanal fisheries in GFCM Members with a view of making proposals for the consideration of the abovementioned regional workshop.

The main tasks and objectives to be achieved by the Working Group will focus on:

- Characterize common social, economic and technical criteria to be considered in the definition of small scale/artisanal fisheries at sub-regional and/or regional level.
- Review the status of small scale/artisanal fisheries in GFCM Members with focus on the available socio-economic data, the existing monitoring systems, and the integration of artisanal communities in the management plans
- Define a standard framework for the collection and analysis of socio-economic data for use in small scale/artisanal fisheries management; and
- Identify and develop priority case studies at the country level to assist in the finalization of the above mentioned tasks.

The elaboration of reports and/or presentations by each invited national researcher describing and analysing the present status of small scale/artisanal fisheries (social, economic, governance and environmental dimensions) in their countries will be very helpful. The FAO Regional Projects are invited to present their experiences in the analysis and the development of small scale/artisanal fisheries in their relevant sub-regions. The pre-Working Group elaboration of national case studies will assure the existence and availability of the relevant data to be analysed by the Working Group participants with the aim of developing concrete recommendations to the forthcoming GFCM Regional Workshop on Sustainable Artisanal Fisheries.

### **Terms of Reference for the Working Group on “Recreational fisheries”**

Recreational fisheries are becoming more and more important around the world. In fact, recent studies describe a very important growth of interest in recreational fisheries in economies while commercial ones face important declines. Although this may be also the case for the GFCM Area, the truth is that in the region, contrary to commercial fisheries, recreational fisheries suffer from a lack of data, studies, effective managing, control and monitoring. On the other hand, it is obvious that these fisheries share the same zones and in many cases resources and problems of commercial fisheries. Consequently, in some cases conflicts between them arise. On 2010 the GFCM organized a transversal workshop on the monitoring of recreational fisheries in the GFCM Area. On 2012 recreational fisheries were included in GFCM Framework Programme (WP IV). On the same year, FAO has published Chapter 13 on *Technical Guidelines for Responsible Fisheries*, dedicated entirely to recreational fisheries (TGRF). Taking all this into account, and in the context of the thirteenth session of the SCESS, participants agreed on the need to establish an ad hoc working group on recreational fisheries. The purpose of this working group is to gather existing information about recreational fisheries in the Mediterranean and Black Sea, find gaps, identify common problems, potential conflicts and propose solutions. Similarly, the working group should deepen on the adequacy and need to implement and adapt the TGRF in the GFCM Area and cooperate with other recreational fisheries working groups in the region.

The working group should focus on achieving some of the following topics:

- Define whether or not a common policy framework for recreational fisheries in the GFCM Area is possible. If so, clarify which issues should be included in this regional scope and which should not.
- The Mediterranean and Black Sea are very particular ecosystems, with biological, ecological and other aspects distinguished between them. In addition, both regions are socially speaking very heterogeneous. In this context, identify which specific issues should be specially taken in account when implementing the FAO TGRF in the region. Should they become the common basic management framework?
- Analyse existing cases of regulation of recreational fisheries within Mediterranean and Black Sea MPAs. Identify major achievements, gaps, impacts and groundings.
- Define the main variables (qualitative and quantitative) to evaluate the socio-economic impact of recreational fisheries. Study whether or not they could be integrated into bio-economic models.
- Find the main patterns that characterize IUU recreational fishing in the Mediterranean (reasons, species, bio-economic impact, modalities, black market, social needs...). Propose solutions.
- Discuss existing and/or adopt a code of conduct for recreational fisheries in the GFCM Area.
- Identify the main reasons that hinder a multilateral relationship between managers, scientists and recreational fishers. Find solutions.

- Describe valuable data source outputs of recreational fisheries.
- Identify main conflicts between recreational fishers and other users of the sea. Find causes and search possible solutions.
- Define the positive and negative impacts (biological and socio-economical) of recreational fisheries contests.
- Cooperate with other regional recreational fisheries working groups (e.g. RACMED) in order to approach/converge in similar goals.

This working group should focus on recreational fisheries issues related to the objectives previously defined and in the context of the GFCM Area. Any other issue related to other world regions should only be presented or used as examples that may contribute to achieve the scope of the working group. On the other hand, activities like pesca-turismo are out of the scope of this working group, because they are considered commercial activities.

### **Terms of Reference for the Working Group on “Common methodology to carry out socio-economic analysis”**

There exist, in the GFCM Area, several methodologies to collect and to analyze socio-economic data for fisheries management. The purpose of the working group is to develop a common methodology to analyze and to compare results.

The working group will focus on the following subjects:

- Review of main Mediterranean studies carried out on methodology on socioeconomic data analysis;
- Presentation and discussion on studies undertaken in the context of the GFCM regional projects (CopeMed; AdriaMed and EastMed);
- Review of application on a common methodology: data availability; technical problems; availability of staff, etc.;
- Setting of a program for the follow-up of the application on this common methodology;
- Drawing up of a practical guide;
- Prepare a reference document for the elaboration of a guideline on the use of a common methodology to analyse socio-economic data in fisheries management.

Country experts are required to present the situation of available data in order to establish a particular analysis of each situation. To test some situations, it can be proposed a computer work on databases provided by the participants during the workshop. Examples of the results will be provided.