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OPENING AND ARRANGEMENTS FOR THE SESSION

1. The sixteenth session of the Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) was held in St. Julian's, Malta, from 17 to 20 March 2014. The session was attended by delegates from 18 Contracting Parties, 7 observers, representatives of FAO regional projects and the GFCM Secretariat. The list of participants is reproduced as Appendix B.

2. The Honourable Leo Brincat, Minister for Sustainable Development, the Environment and Climate Change, welcomed participants stating Malta was proud to convene the SAC after the success of the First Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea, also held in St Julian's in November 2013. He mentioned the role entrusted to the GFCM in the management of fisheries and insisted on the need for a collective effort of all Members towards the sustainable exploitation of resources and securing a level playing field for all parties involved.

3. The Honourable Roderick Galdes, Parliamentary Secretary for Agriculture, Fisheries and Animal Rights, also greeted participants appraising the remarkable efforts deployed by the SAC and the GFCM Secretariat, in particular in the development of the GFCM Data Collection Reference Framework (DCRF) and towards the elaboration of joint management plans for fisheries resources. In this latter regard, he mentioned the challenges faced in relation to stocks shared between different fleets and highlighted the importance of joint work among neighboring countries, acknowledging the support of the FAO regional projects in this respect.

4. Mr Abdellah Srour, GFCM Executive Secretary, expressed his thanks – personally and also on behalf of Mr Stefano Cataudella, GFCM Chairperson – to the Government of Malta for the kind hospitality and excellent organization of the meeting. He underscored the quality of the participation and of the contributions made during the intersessional period, which resulted in improved stock assessments and data collection, enhanced decision-making based on scientific advice, and greater focus on multiannual management plans. Yet, further steps towards the modernization of the GFCM were required, as recommended by the performance review. In wholeheartedly acknowledging the contribution by FAO and its regional projects, he eagerly looked towards renewed collaboration.

ADOPTION OF THE AGENDA

5. After having introduced participants and observers, Mr Henri Farrugio, SAC Chairperson, gave the floor to the GFCM Secretariat who informed the meeting about organizational arrangements.

6. The agenda was adopted with minor amendments and is attached under Appendix A. The list of documents is under Appendix C.

INTERSESSIONAL ACTIVITIES

Review of the recommendations of the thirty-seventh session of GFCM concerning the management of fisheries

7. The GFCM Executive Secretary recalled the main decisions adopted at the thirty-seventh session of the Commission, namely: i) Resolution GFCM/37/2013/1 on area-based management of fisheries, including through the establishment of fisheries restricted areas (FRAs) in the GFCM convention area and coordination with the UNEP-MAP initiatives on the establishment of SPAMIs; ii) Resolution GFCM/37/2013/2 on Guidelines on the management of fishing capacity in the GFCM area; iii) Recommendation GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic stocks in the GFCM GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea); and iv) Recommendation GFCM/37/2013/2 on the establishment of a set of minimum standards for bottom-set gillnet fisheries for turbot and conservation of cetaceans in the Black Sea.

8. The Chairperson stressed that often adopted recommendations requested a follow-up by the SAC to review indicators or other scientific inputs. For this reason, he urged the countries concerned to ensure an appropriate transmission of the necessary data so as to allow SAC to carry out the tasks requested by the Commission, or else he indicated that SAC would have to advise the Commission on possible constraints in fulfilling this task.

Overview of SAC achievements during the intersession

9. On the basis of document GFCM:SAC16/2014/2, the Chairperson presented the activities undertaken by SAC during the intersession. He informed delegates that 15 meetings had been convened, including those of the four subcommittees and the First Regional

Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea, in addition to FWP workshops on illegal, unreported and unregulated (IUU) fishing and fisheries management plans.

10. The Chairperson first updated SAC on the Subcommittee on Statistics and Information (SCSI), highlighting the work done in relation to the analysis of the DCRF proposal, designed to serve as a reference for data collection and transmission at the subregional level. The status of Members' compliance regarding data and information reporting, with particular focus on vessel records (fleet data) and Task 1, were reviewed.

11. The Chairperson then informed SAC that the Subcommittee on Economic and Social Sciences (SCESS) paid special attention to the identification of a common methodology to carry out socioeconomic analysis and proposed socioeconomic variables and indicators to be included in the new DCRF.

12. In relation to the work carried out by the Subcommittee on Marine Environment and Ecosystems (SCMEE), which addressed specific issues within the framework of two technical workshops and one working group (on red coral, artificial reefs and marine protected areas, respectively), he pointed in particular to the operational objectives included in the draft Regional Management Plan for Red Coral (RMP-RC) and the draft Practical Guidelines for Artificial Reefs in the Mediterranean and the Black Sea.

13. The Chairperson reported that the Subcommittee on Stock Assessment (SCSA) had provided advice for 39 assessments, of which 34 in the Mediterranean (25 for demersal species and 9 for small pelagic species) and 5 in the Black Sea (3 for demersal species and 2 for small pelagic species). He expressed concern for the status of the demersal stocks as 21 of them were found to be in overfishing. As for small pelagic stocks, he recalled the outcomes of the 11 stock assessments performed and expressed similar concerns for those stocks in overfishing status.

14. Lastly, he also reported on the main activities carried out by the GFCM Working Group on the Black Sea (WGBS). He recalled that WGBS had provided management advice for five stocks assessed during the first meeting of the Subregional Group on Stock Assessment for the Black Sea (SGSABS), agreed on elements for the management of turbot

in the Black Sea, and decided on activities related to the implementation of the existing memorandum of understanding (MoU) with the Black Sea Commission (BSC).

15. In the ensuing discussion, the delegate of Tunisia proposed to create a working group on fishing technologies operating under SAC auspices. Most participants supported this proposal although raising the need to better define the mandate of this group and to set priorities, given the broad range of issues that could be considered under the general term of "fishing technologies",. The difficulties of dealing with multispecific fisheries and with the issues of discards and their reduction were mentioned as priority subjects that this group should address.

16. The Committee agreed to include in the SAC work plan the proposal to hold a first meeting of the Workshop on fishing technologies back-to-back with SCMEE. The FAO regional projects informed that they were already working on this issue and offered technical support to this activity.

Research activities by Member countries

17. The GFCM Secretariat, presented a synthesis of the information contained in 17 national reports received (Appendix I (a) and (b)) providing an overview of changes in fleet size and production among GFCM Members and highlighting: i) the increasing number of national stock assessments performed by GFCM Members, which regrettably were not always brought to GFCM working groups on stock assessment; ii) the remarkable progress in carrying out socioeconomic studies as well as sample-based catch effort and biological surveys, also with the support of FAO regional projects; and iii) the scarcity of information on by-catch of sharks, rays and cetaceans that should have been submitted according to relevant GFCM recommendations.

18. Following this presentation, the delegate of Croatia informed that the increase in the numbers of their fleet was due to the inclusion of small-scale vessels in the inventory, thanks to better data collection systems in place, rather than to the incorporation of new vessels into fishing activity. Similarly, the reduction of the fleet observed in Malta was also an artefact of a different way of collecting data and it was clarified that recreational vessels had not been taken into account, as opposed to the previous year for which data were more comprehensive as all sectors of the fleet were included. The delegate of Algeria explained that, despite their

willingness to freeze the fleet as a precautionary management measure, a small increase in the number of small-scale fishing vessels had been allowed due to socioeconomic constraints, resulting in an increase of the total catches reported.

19. The preparation by the Secretariat of an online form to facilitate the transmission of national reports was regarded as a potentially good practice. This would enable, thanks to improved functionalities, to better specify the nature of research projects in place. It was agreed that, as a pilot test, national reports could be submitted the following year through this new online tool, on a voluntary basis. The new format would also allow the Secretariat to store data in a more standardized way and to perform comparative analysis between areas, countries and over several years.

Major activities and initiatives of the FAO regional projects

20. The activities carried out by the FAO regional projects (AdriaMed, CopeMed II, ArtFiMed, EastMed, MedSudMed, MedFisis, and MedLME) during the intersessional period were presented, including research activities, training programmes, workshops and working groups as well as technical assistance to the countries and to SAC activities. The delegates were reminded that detailed information on the activities and outputs of the projects could be found in the annual report of the coordination committees of the different projects and in document GFCM:SAC16/2014/Inf.22.

21. The SAC acknowledged the extensive work undertaken by the FAO regional projects as well as their valuable scientific contributions, and congratulated them for the efforts towards increased cooperation with the GFCM. Delegates also stressed the importance of the existence of the FAO regional projects for the support provided to the countries and to the GFCM.

22. In particular, the delegates of Albania and Montenegro reiterated the strategic role of the AdriaMed project, being the only project gathering all the Adriatic countries under a cooperative framework for relevant national institutions. Reference was made to the importance of AdriaMed for the future development of fisheries in the countries concerned and in the Adriatic Sea in general.

23. The delegates of Egypt and Lebanon acknowledged the role of EastMed in the area and stressed that without its support a number of activities concerning data collection and processing could not be implemented in their countries.

24. The delegate of Tunisia highlighted the important role of MedSudMed which had moved towards a new phase of cooperation with data sharing, joint analysis and support to the formulation of fisheries management in the area. He considered advisable that, taking advantage of the regional projects, topics such as fishing technologies could be tackled. In this regard, he proposed to prepare a catalogue of fishing gears of the Mediterranean, taking advantage of the documents and information issued at the national level (e.g. Tunisia, Algeria).

25. The Committee recalled the important role played over time by CopeMed (phase I and II), the first regional project in the Mediterranean to have launched the current cooperation activities in the area. It was recalled that the future phase of the regional projects would be addressed during the thirty-eighth session of the Commission (May 2014), which would constitute an occasion for Mediterranean countries to discuss about a new cooperative framework between the GFCM and the FAO regional projects.

REVIEW OF RELEVANT TASK FORCE AND FRAMEWORK PROGRAMME (FWP) ACTIVITIES CONCERNING THE SAC

Review of selected matters addressed within the GFCM amendment process of relevance to SAC

26. The Executive Secretary recalled the work that was performed by the Task Force for the modernization of the legal framework of the GFCM and the related activities carried out thanks to the Framework Programme (FWP). In particular, he focused on the bottom-up and participatory approach adopted by the GFCM so that all relevant actors could convey their views, thus contributing to the elaboration of a set of revised GFCM Agreement and associated rules. In the proposed texts, specific provisions would have a bearing on the SAC in the future, namely: i) the promotion of the subregional approach, ii) the establishment of the review mechanism for decision-making; iii) the possible use of the SAC glossary, which would call for a regular revision of its contents. The Executive Secretary recalled that the GFCM extraordinary session, scheduled to take place in April 2014, would continue the consultation process.

Review of activities carried out under the preliminary phase of the FWP and introduction of ongoing FWP activities

27. Mr Miguel Bernal, from the GFCM Secretariat, presented the achievements of the Framework Programme in 2013 and 2014, namely: i) the elaboration of elements for the management of selected fisheries in the Mediterranean and Black Sea, emanating from workshops on fisheries management held at the subregional level; ii) the roadmap on IUU fishing, developed for the Mediterranean following the example of the workshop held in the Black Sea during the previous intersession, and expected follow-up; iii) the finalisation of the draft DCRF and related data requirements; iv) the main conclusions of the First Regional Symposium on Sustainable Small-scale Fisheries (SSF) and foreseen actions for their implementation; v) the proposal of indicators and targets for the UNEP-MAP Ecological Objective 3 on commercially exploited fish; and vi) the ongoing cooperation with other agencies (ACCOBAMS, ICES, CIHEAM among others). The SAC was invited to give feedback on the technical contents of these activities, in particular regarding their complementarity with the work being carried out and the opportunities offered.

28. The SAC noted the many achievements made and appreciated the outcomes of the activities being carried out through the FWP as well as the work undertaken by the Secretariat. In particular, in relation to small-scale fisheries, the SAC commended the impact and interest raised by the Symposium and its follow-up activities.

29. The delegate of Morocco mentioned that the data collected through the DCRF should be first analysed by the Secretariat and then made available to the SAC and its subcommittees and working groups as a basis for advice. He added that the necessary funding sources to fulfil the requirements of the DCRF should be identified.

30. In the ensuing discussions, SAC questioned about the potential implications of the different activities for Members and was in favour of a prioritization of follow-up activities, suggesting that further information on available funds be provided.

31. The Secretariat clarified that, for most of the activities suggested through the FWP, funds were already available thanks to ongoing projects and explained that SAC was invited to provide its technical inputs, as appropriate, and to cooperate through national institutions in the proper implementation of these activities.

32. The Committee was informed about the MedSuit project – A Mediterranean Cooperation for the Sustainable Use of Marine Biological Resources. This project, funded by the Italian Ministry of Environment through the FWP, was recently established with the aim to: i) harmonize criteria to define environmental targets; ii) determine the status of exploited marine populations; and iii) design monitoring requirements to ensure the maintenance of good environmental status. The Committee strongly invited delegations to participate in the inception meeting, scheduled to take place in Italy during the second half of 2014, by coordinating with relevant national departments to ensure the involvement of experts in marine strategy issues.

FORMULATION OF ADVICE IN THE FIELD OF FISHERY MANAGEMENT AND RESEARCH

Conclusions and recommendations of the Subcommittee on Statistics and Information (SCSI)

33. Mr Alaa El-Haweet, SCSI coordinator, presented the conclusions and recommendations of the Subcommittee on the basis of the documents GFCM:SAC16/2014/2 and GFCM:SAC16/2014/Inf.6. He reported that SCSI had revised the DCRF proposal and provided technical inputs, including the addition of the IMO number as mandatory field in the fleet data component so as to be compatible with the FAO Global Record. He added that the SCSI had also suggested to organize a regional meeting to implement the DCRF, and stressed the need to: i) strengthen the national data collection and transmission (with particular focus on Task 1 and vessel records); ii) provide assistance to concerned countries in sampling programmes at the subregional level; and iii) improve data collection on small-scale fisheries.

34. The coordinator further reported that SCSI had suggested establishing a system for the transmission of relevant data from EU fleet register system to the GFCM Secretariat, and developing a strategy for the potential use of data collected through VMS for stock assessment and for the evaluation of fish populations. Finally, he informed that SCSI had strongly supported the development of cloud-based IT solutions for data/information dissemination undertaken by the GFCM Secretariat, and recalled the need to assess the technical implications of the harmonization of mismatching boundaries in the GFCM statistical grid with some GSAs.

35. The delegate of Montenegro commented on the list of priority species in the DCRF by pointing out that some species listed in Appendix A of the DCRF were not important at the country level. The Secretariat confirmed that this issue was already addressed in the final draft of the DCRF, where exemption rules were foreseen in these cases.

36. The Tunisian delegate pointed out that VMS data were not part of the DCRF, although the implementation of VMS for vessels over 15 meters was foreseen within a GFCM recommendation starting from 2012. The relevance of VMS data in support of advice and its future inclusion in the DCRF was discussed, and the SAC proposed to organize a workshop, possibly within the FWP, to identify the best solutions to receive, incorporate and analyse VMS data using specific pilot case studies on the topic.

37. In relation to the fleet component of DCRF and to the question raised by Lebanon, the Secretariat clarified that the information on acquiring the IMO number would be made compulsory for vessels above 15 meters only.

38. The representative of Oceana recalled the suggestions made by the SCMEE regarding the importance of considering by-catch of vulnerable species within the new data collection framework. In this respect, the Committee was informed that this issue had already been addressed when updating the DCRF proposal.

39. Following the discussions, the Committee acknowledged the importance of establishing a DCRF for the submission of data to the GFCM, endorsed the DCRF and agreed on its submission to the thirty-eighth session of the Commission for consideration and possible adoption.

Conclusions and recommendations of the Subcommittee on Economic and Social Sciences (SCESS)

40. Mr Scander Ben Salem, SCESS coordinator, introduced the recommendations made by the subcommittee on the basis of documents GFCM:SAC16/2014/2 and GFCM:SAC16/2014/Inf.7. He recalled that, following the recommendation of SAC, SCESS had focused on a few selected issues, namely: i) the design of a common methodology to carry out socioeconomic analysis, ii) the revision of the socioeconomic variables included in the DCRF; iii) the need to continue working on small-scale fisheries (document GFCM:SAC16/2014/Inf.24), including through the development of a regional programme,

and iv) the integration of socioeconomic studies in the management of stocks, using the common methodology proposed.

41. Mr Davide Fezzardi, from the GFCM Secretariat, reported about the progress made in developing a regional programme on SSF. Brief meetings were organized in parallel to SAC during the first two days of the SAC session and key elements for such regional programme (available in Appendix H) were prepared in cooperation with delegations, to be consolidated into a concept note in view of the thirty-eighth session of the Commission. The aspects discussed included mainly the identification of possible case studies on small-scale fisheries covering a range of geographic and socioeconomic situations and relating to the five thematic sessions of the First Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea.

Conclusions and recommendations of the Subcommittee on Marine Environment and Ecosystems (SCMEE)

42. In the absence of the SCMEE coordinator, Mr Federico Alvarez, due to unforeseen circumstances, Ms Pilar Hernández, from the GFCM Secretariat, presented the conclusions and recommendations of the subcommittee on the basis of documents GFCM:SAC16/2014/2 and GFCM:SAC16/2016/Inf.5. She highlighted the most relevant outcomes from intersessional activities, including: (i) the production of Practical Guidelines for Artificial Reefs in the Mediterranean and Black Sea; (ii) the elements for a Regional Management Plan for red coral (GFCM:SAC16/2014/4); and (iii) the revision of the current status of fisheries restricted areas and the harmonization of templates for the request of new protected areas throughout the different international organisations, within the framework of the Working Group on Marine Protected Areas (WGMPA),.

43. The representative of Oceana, in relation to the outcomes of the WGMPA, highlighted that several infringement cases had been revealed within fisheries restricted areas (FRAs) and asked about the procedure to be followed in cases of non-compliance with the existing recommendations related to FRAs. She also underlined the difficulties met in obtaining the fisheries data requested in the revised template for the proposal of a new FRA and called for some flexibility in the related fields of the template. In this regard, she drew the attention of delegates on the need to make the required data available and encouraged countries to make proposals and declare new FRAs, as well as to support research programmes, particularly in

areas far from the coast. She finally highlighted the importance of organizing a second meeting of the WGMPA. The Executive Secretary recalled that issues related to compliance should be treated within the context of the GFCM Compliance Committee.

44. The ACCOBAMS Executive Secretary informed the Committee about an action plan for the conservation of cetaceans in the Black Sea, as well as the launch of a project to assess and reduce by-catch of cetaceans, sea turtles, sea birds and other threatened species in the Mediterranean, to be funded by the MAVA Foundation and to be carried out in collaboration with GFCM and RAC/SPA. The representative of RAC/SPA stressed the importance of this project and highlighted that the objectives were in line with the Barcelona Convention regional action plans.

45. With regards to red coral, the Committee endorsed the conclusions of the workshop and the elements for a Regional Management Plan for red coral (RMP-RC) to be submitted for consideration of the Commission.

46. The Practical Guidelines for Artificial Reefs in the Mediterranean and Black Sea as provided in document GFCM:SAC16/2014/Inf.21 were endorsed by the SAC.

47. The Secretariat recalled the proposal of indicators to assess the good environmental status (GES) of commercially exploited fish and shellfish, developed within the framework of the UNEP-MAP ecosystem approach process (EcAP) and the MoU between GFCM and UNEP/MAP (full proposal included in GFCM:SAC16/2014/Inf.25). The Secretariat pointed out that some of the indicators included in the proposal were regularly assessed for the main stocks in the GFCM area within the WGSAs (e.g. catch, fishing mortality, spawning stock biomass), while other indicators were not commonly assessed in the GFCM context, and some of them required information that is available only in some areas and not regularly submitted to the GFCM (e.g. scientific surveys at sea).

48. In the ensuing discussion, participants agreed that those indicators not routinely assessed during the WGSAs, as well as the requirements to obtain them, should be further analysed by the SAC and its subcommittees and working groups, and that a special agenda item on this issue should be included in the relevant subcommittees during the next intersessional period. Also, some participants highlighted the potential overlapping/synergies with the targets and indicators included in the EU Maritime Strategy Framework Directive

(MSFD). In this regard, the Secretariat informed that a close collaboration of UNEP-MAP and GFCM with the European Commission (EC) on this issue was ensured through the participation of the former two in relevant EC fora.

Conclusions and recommendations of the Subcommittee on Stock Assessment (SCSA)

49. Mr Francesco Colloca, SCSA coordinator, presented the conclusions of the subcommittee on the basis of documents GFCM:SAC16/2014/2 and GFCM:SAC16/2014/Inf.14. He noted that advice had been provided for a total of 39 stocks, of which 34 in the Mediterranean (25 for demersal species and 9 for small pelagic species), and 5 in the Black Sea (3 for demersal species and 2 for small pelagic species). For Mediterranean stocks, three demersal and two small pelagic stocks were considered in sustainable exploitation status, while the 29 other stocks (22 for demersal species and 7 for small pelagic species) were considered under some kind of threat – overexploitation, being overexploited or ecologically unbalanced. In the Black Sea, two stocks of small pelagic species were considered to be sustainably exploited, while the three demersal stocks assessed were considered either depleted, overexploited or in overexploitation.

50. The coordinator then summarized the conclusions and recommendations from SCSA, which included: i) a proposal for a framework providing guidance in the formulation of advice and recommendations in relation to stock status and reference points, as well as in the presentation of advice emanating from the stock assessment working groups; ii) guidelines to improve the assessment models used in the stock assessment working groups; iii) a revision of reference points for small pelagic species, based on the analysis carried out by the SCSA Working Group on stock assessment Small Pelagic Species (WGSASP); and iv) technical comments on Recommendation GFCM/37/2013/1 on the management of small pelagic fisheries in the Adriatic Sea.

51. The Chairperson acknowledged the continuous increase in the number and coverage of assessments provided by SCSA and suggested that, for some demersal stocks, the advice could be provided on a multiannual basis in order to reduce and prioritize the number of stocks analyzed yearly. He also acknowledged the harmonization of the methodology (reference points, description of the state of stocks and management advice) used by SCSA and its working groups for the formulation of advice.

52. The Committee expressed concern on the fact that only seven stocks were being sustainably exploited and that the fishing mortality for some stocks was much higher than the target one. Also, the delegate of Tunisia highlighted the subregional unbalances in the basic information available and number of assessed stocks, with southern and eastern areas having a small number of assessments provided by SCSA.

53. The EU delegate presented an overview of ongoing work towards the assessment of the status of Mediterranean stocks based on maximum sustainable yield (MSY) criteria, which also pointed to the geographical unbalance in stock assessment information and showed that the advice for most species which were regularly assessed was generally consistent over time and that the results of the analysis were coherent with those presented to SAC. He also mentioned that the preliminary results were indicating that the amount of stocks in overfishing status had increased in the time series analysed, highlighting that these results had to be confirmed.

54. The Committee noted that the stability of advice provided for regularly assessed species was in line with the suggestion to reduce the number of stocks analysed yearly. This would allow dedicating more time to an in-depth analysis of data, assumptions and models used, in order to provide advice on a multiannual basis. The coordinator of SCSA also commented that the improvement in geographical coverage should be linked to a better data collection on those areas for which information on status of stocks was currently limited and that this could be facilitated by the new DCRF.

55. The representative of Oceana pointed out that the conclusions from SCSA indicated that more than 85 percent of the stocks assessed were overexploited, stressing that immediate action should be taken to improve the situation. In light of these considerations, she urged delegates to notify their respective authorities about the alarming status of the stocks. The Chairperson highlighted that a general reduction of fishing mortality was needed and delegates underlined that management plans should be implemented to ensure sustainable exploitation.

56. The delegates of Egypt and Turkey discussed on how management advice for the lessepsian species *Saurida undosquamis* in GSAs 24 and 26 should be provided. The delegate of Egypt mentioned that the species had been present in the area for a long time, becoming the

target of an important local fishery, and should therefore not continue to be considered as an invasive species. The delegate of Turkey mentioned that, since *Saurida undosquamis* was a piscivorous fish, the current management advice to reduce fishing mortality on this species in GSA 26 should consider the prey/predator balance and the level of predation mortality of other ecologically and commercially important species. In light of this discussion, SAC suggested that SCMEE and SCSA further investigate the role of this species in the area and how to best provide advice in this respect.

57. The Committee discussed on several aspects that should be incorporated in management plans, including fishing gear selectivity, VMS data, by-catch and the use of temporal and spatial closures as management measures. Also, the importance of factoring the views of professional fishers into the development of management plans was highlighted. The Committee stressed the importance that the technical parts of GFCM management plans be discussed and adopted by SAC at its annual session.

58. For the case of anchovy in GSA17, the Committee extensively discussed about the assessment models, assumptions and input data used for this stock during the 2014 session of WGSASP and about the related comments made by SCSA. In this regard, the Committee noted in particular that more than one assessment model had been used, resulting in different historical perspectives on stock biomass and preventing WGSASP to provide updated reference points. Also, the Committee highlighted that there was a mistake in the reference points included in Recommendation GFCM/37/2013/1. In consideration of the above, the SAC invited the Commission to consider the possibility of revising the relevant technical elements in Recommendation GFCM/37/2013/1 taking into account the conclusions of SAC.

59. In light of the above discussions, the Committee endorsed the stock status and the advice to reduce fishing mortality for the anchovy and sardine stocks in GSA 17 as provided by SCSA and reported in Table 1 of Appendix D. However, the SAC considered that the adjustment in fishing mortality as proposed by Recommendation GFCM/37/2013/1 and tabled in SCSA advice might not be adequate due to the issues raised in paragraph 58. For all other stocks assessed, the Committee endorsed the SCSA advice as included in Appendix D. In addition, the Committee endorsed the *Proposal for a Framework for describing stock status and providing management advice in relation to reference points* as included in Appendix F.

60. The SAC also endorsed the proposals of technical elements for management plans, as included in Appendix G, to be submitted for the consideration of the thirty-eighth session of the Commission, namely: i) small pelagics in the Alboran Sea; ii) mixed fisheries of hake and shrimp in the Strait of Sicily; iii) deepwater shrimp in the eastern Mediterranean; and iv) turbot in the Black Sea,.

61. In light of the agreed need to transpose SAC advice into concrete actions to reduce fishing pressure on the stocks, the Executive Secretary proposed that delegations pinpoint those stocks that called for urgent action and for which adequate management measures to improve the situation were identified, coordinate with other delegations, as relevant, and prepare proposals on management recommendations for the consideration of the Commission. The SAC welcomed this proposal and suggested that in some cases this could be facilitated through dedicated workshops and/or with the support of the Secretariat.

Conclusions and recommendations of the Working Group on the Black Sea (WGBS)

62. Mr Violin Raykov, vice-coordinator of the WGBS, summarised the main activities undertaken in the Black Sea during the intersessional period on the basis of documents GFCM:SAC16/2014/Inf.10, Inf.11, Inf.17 and GFCM:SAC16/2014/7. He informed the Committee that the management advice provided by the SGSABS and validated by the SCSA for the five stocks assessed in the Black Sea had also been reviewed by the WGBS, which had provided comments on the necessary follow-up.

63. He also indicated that the WGBS had identified a series of activities to be carried out in collaboration with ACCOBAMS and the BSC, within the remit of the MoUs in place, and endorsed the *Elements for the management of turbot fisheries in the Black Sea*.

64. He emphasized that, in light of the assumed level of IUU catches for Black Sea stocks, the WGBS recommended to: i) improve the monitoring of the fisheries with the aim to reduce the level of unreported catches; ii) reduce IUU fishing as a fundamental step to achieve the reduction of fishing mortality advised for stocks such as turbot; and iii) incorporate estimates of IUU in the assessment of the status of stocks.

65. The Committee acknowledged the work performed by the WGBS and commended the substantial progress made in the Black Sea in the field of stock assessment and management

plans. It also welcomed the continued cooperation within the framework of the MoU with the BSC. The involvement of both Members and non-Members in these activities was praised and the WGBS was encouraged to pursue its coordination efforts.

REVIEW OF THE SAC PRELIMINARY WORK PLAN FOR 2014–2015

66. The Secretariat introduced the work plan of the four SAC subcommittees and the WGBS on the basis of document GFCM:SAC16/2014/2 and related reports (documents GFCM:SAC16/2014/Inf.5 to Inf.10), also taking into consideration the suggestions put forth by the delegations during the discussions held at the session. The following activities for each subcommittee were agreed by SAC:

Subcommittee on Statistics and Information (SCSI)

- Carry out an assessment at national level in each GFCM Member for the improvement of data collection on small-scale fisheries;
- Organize a regional meeting to implement the DCRF within the FWP and in collaboration with the FAO regional projects.

Subcommittee on Economic and Social Sciences (SCESS)

- Develop a common methodology to carry out the collection of socioeconomic data for vessels without license;
- Convene the Second Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea in connection with the proposed regional programme on small-scale fisheries, in 2015 or 2016.

Subcommittee on Marine Environment and Ecosystems (SCMEE)

- Organize a FWP Workshop on Elasmobranchs in the Mediterranean and the Black Sea (terms of reference provided in Appendix E);
- On the reduction of by-catch of vulnerable species, within the framework of activities undertaken by GFCM, RAC/SPA, ACCOBAMS and some countries:
    - Produce informative material and leaflets on good practices to reduce the fishing mortality of sea turtles to be available for download on the GFCM website (taking into account the existing material);
    - Collate existing information on technical tools and management measures to reduce by-catch of seabirds and monk seals (taking into account the existing material).
- Carry out the following actions in view of future WGMPA meetings:

- Compile a review of existing national areas subject to area-based fisheries management measures under the provisions of national legislation (e.g. seasonal closures, gear restrictions);
- Explore the possibility of assigning IUCN protected areas management categories to GFCM FRAs and to the existing national areas subject to area-based fisheries management measures.
- Within the GFCM–UNEP/MAP MoU and in collaboration with RAC/SPA envisage the possibility of carrying out:
  - A pilot study to test new joint designations of marine protected areas by more than one institution;
  - A study on deep sea habitats and vulnerable marine ecosystems (VME) with the aim of assessing the feasibility of protecting areas shallower than 1 000 m and the related fisheries implications.

Subcommittee on Stock Assessment (SCSA)

- Incorporate in the next agenda of the stock assessment expert groups (i.e. WGSAs and SGSABS) a specific session to discuss the advice on the status of stocks included in Recommendation GFCM/37/2013/1;
- Regularly update the SAC glossary with the models used in the stock assessment expert groups.

Working Group on the Black Sea

- Perform a comparative analysis of stock assessment methods for the list of priority stocks identified;
- Develop elements for a management plan on turbot in the Black Sea, following the agreed Proposed minimum structure, criteria and measures for multiannual management plans for turbot fisheries in the Black Sea (document GFCM:SAC16/2014/7).

67. The Committee agreed on the list of meetings for 2014–2015 as provided below, subdividing the activities as follows in order to facilitate prioritization by the Commission: i) regular meetings of the SAC and its subcommittees and working groups; ii) meetings to be held within the FWP (already scheduled and for which extra-budgetary funds are identified); and iii) newly proposed meetings. In relation to activities on small-scale fisheries, the Secretariat specified that funds for the development of a concept note were already secured whereas further discussions on the launch of a regional programme on small-scale fisheries and the organization of the second Symposium were ongoing with the concerned stakeholders

(i.e. FAO Fisheries Department, FAO regional projects, CIHEAM, MedPAN, WWF – partners of the first Symposium) and donors.

SAC meeting	Place/Date
SCSA Working Groups on stock assessment of Demersal and Small Pelagic Species (WGSAD and WGSASP), including a session on the assessment of data limited stocks in the Mediterranean and Black Sea	Rome, TBC October – November 2014
Meeting of the Subregional Group on Stock Assessment in the Black Sea (SGSABS) (possibly together with BSC Advisory Group on Fisheries)	TBD October – December 2014
Sessions of the SAC subcommittees (SCSI, SCESS, SCMEE, SCSA), including a session on fishing technologies	Rome, TBC October – November 2014
Coordination meeting of the subcommittees (CMSC)	TBD
Fourth meeting of the WGBS	Georgia, Early 2015
Seventeenth session of the Scientific Advisory Committee (SAC)	Rome, TBC March 2015

FWP meeting	Place/Date
Workshop on Black Sea scientific surveys at sea: harmonization of survey methodologies and analysis of data	TBD 2014/2015
Workshop on the implementation of the DCRF in the Mediterranean and Black Sea, including VMS data and common methodology for the collection and analysis of socioeconomic data	TBD 2014/2015
Follow-up workshop on the implementation of the IUU roadmap	TBD 2014/2015
Follow-up workshop for the implementation of management measures in selected case studies in the Mediterranean and the Black Sea	TBD 2014/2015
Workshop on the conservation of elasmobranchs	Sète, France 2014
MedSuit project inception meeting	Italy, 2014
Second Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea	Algeria 2015/2016

Newly proposed meeting	Place/Date
EIFAAC/GFCM/ICES Working Group on Eels (WGEEL)	Tunisia November 2014
Second meeting of the Working group on Marine Protected Areas (WGMPA) (possibly back-to-back with the RAC/SPA meeting on SPAMIs)	Tunisia June 2015

68. The SAC took note of the offer made by GFCM Members to host selected meetings, subject to confirmation by their relevant competent authorities. It was recalled that the implementation of activities would be subject to the availability of funds.

69. The representatives of ACCOBAMS, Oceana, UNEP-MAP, RAC/SPA, and WWF proposed terms of reference for the second meeting of the WGMPA (included in Appendix E). In relation to the potential venue and dates, UNEP-MAP and RAC/SPA commented that a meeting for the assessment of SPAMIs was already planned for June 2015 in Tunisia and that the WGMPA could be held back-to-back.

70. In order to facilitate the review by the Commission at its thirty-eighth session, for endorsement and allocation of related budgetary funds, SAC urged the concerned subcommittee coordinators and experts to provide terms of reference for all proposed activities.

ELECTION OF THE SAC BUREAU

71. All delegations paid special tribute to Mr Henri Farrugio (France) for his continuous efforts as Chairperson and for his dedication to the work of the SAC over the six years of his mandate, as well as to Mr Othman Jarboui (Tunisia) and Mr Atig Huni (Libya), first and second Vice-Chairperson respectively, expressing deep gratitude for the outstanding commitments shown during their mandate.

72. The Executive Secretary referred to Articles 7 and 8 of the GFCM Rules of Procedures related to the election and functions of the Bureau. On the basis on the information provided, the Committee unanimously elected Mr Othman Jarboui (Tunisia) as SAC Chairperson as well as Mr Ali Cemal Gucu (Turkey) and Ms Capucine Mellon (France) as first and second Vice-Chairperson, respectively.

73. The Secretariat was requested to send a letter to the countries of origin of the newly elected members of the Bureau in order to invite the relevant authorities to facilitate, as much as possible, the work of the Chairperson and Vice-Chairpersons as well as that of the SAC subcommittee and working groups coordinators.

ANY OTHER MATTER

74. The Committee identified some issues affecting the proper functioning of SAC and its subcommittees and working groups, namely: i) a low attendance at technical meetings, ii) the unclear definition of the respective roles of the SAC and its subcommittees and working groups, iii) the need for a stronger involvement of the coordinators and the Bureau in the activities of SAC; and iv) the need to enhance communication among SAC Members, including at the national level.

75. In relation to the issue of low participation in technical meetings, the Committee was reminded of the responsibility for the Contracting Parties to ensure the involvement of their delegates and national experts in the work of the SAC and its subcommittees and working groups. It was also underlined that, in the light of the current circumstances prevailing in the region, a mechanism to financially support attendance would be beneficial at the GFCM level; the need to enhance the role of the FAO regional projects in this regard was also raised.

76. The Committee advised – in reply to the need to define the roles of SAC and its subcommittees and working groups – that clear terms of reference be revised and regularly updated, taking into consideration the ongoing modernization of the GFCM and the related discussions on the amendment of its legal and institutional framework.

77. In connection with the need to enhance communication between the Members and the Secretariat and to ensure a proper coordination at the national level, the Committee favored the option of scheduling videoconferences with focal points or among the Members of the Bureau. It also noted the SharePoint facilities being developed by the Secretariat would allow setting up dedicated GFCM e-mail accounts that would be ready to use in the near future would make interactive work possible.

78. The necessity of entrusting SAC focal points with a clear mandate was raised and the Committee agreed to draft terms of reference to be reviewed at the next session of the SAC.

The focal points would be requested, *inter alia*, to submit to the Bureau and the Secretariat quarterly reports on progress and/or activities of relevance to SAC at the national level. The Committee suggested foreseeing the possibility to send the main SAC documentation to focal points via regular mail ahead of the sessions, upon agreement of the Commission on the related budgetary implications. Finally, the Committee urged delegations to submit ahead of the thirty-eighth session of the Commission an updated list of national focal points for the SAC and its subcommittees, on the basis of the template that would be circulated by the Secretariat.

79. Lastly, the Committee agreed to revitalize the Coordination meeting of the subcommittees (CMSC) and promote its original role aimed at facilitating and integrating the advice emanating from the SAC subcommittees and working groups. In this regard, it was decided to ensure that rapporteurs be designated at SAC meetings, besides the drafting work provided by the Secretariat.

80. The MedArtNet representative recalled the success of the First Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea and the historic signature of an agreement to establish a cooperation platform of fishers at the regional and sub-regional level. He thanked the GFCM for granting his association the observer status and referred to the invitation by SAC to attend the session as an encouraging sign of the importance given by the GFCM to the involvement of fishers' organizations into the decision-making process.

81. The Committee extended its appreciation to the Maltese Government for hosting the session and for the great hospitality. In particular, it warmly thanked the Ministry for Sustainable Development, the Environment and Climate Change for the dedication and the excellent collaboration that made possible the organization and the success of the meeting. The exceptional working conditions kindly offered by Malta were highly appreciated by all delegates.

82. The Chairperson and the delegates congratulated the GFCM Secretariat for the excellent work done in the preparation and organization of the SAC as well as during the intersessional period.

DATE AND VENUE OF THE NEXT SESSION

83. The Committee agreed that a decision on the dates and venue of the next session of SAC would be taken at the thirty-eighth session of the Commission.

ADOPTION OF THE REPORT

84. The report, including its appendices, was adopted on Thursday 20th March 2014.

OUVERTURE ET ORGANISATION DE LA SESSION

1. Le Comité scientifique consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa seizième session à Saint-Julien (Malte) du 17 au 20 mars 2014. Ont participé à la session des délégués de 18 Parties contractantes, de sept observateurs ainsi que les représentants des projets régionaux de la FAO et du Secrétariat de la CGPM. La liste des participants fait l'objet de l'Annexe B.

2. M. Leo Brincat, Ministre du développement durable, de l'environnement et du changement climatique, a souhaité la bienvenue aux participants et déclaré que Malte était fière d'organiser la réunion du CSC après la réussite du premier Symposium régional sur la pêche artisanale durable en Méditerranée et dans la mer Noire, tenu également à Saint-Julien en novembre 2013. Il a évoqué le rôle confié à la CGPM en matière de gestion des pêches et insisté sur la nécessité d'un effort collectif de la part de tous les membres pour parvenir à une exploitation durable des ressources et garantir des règles du jeu équitables pour toutes les parties concernées.

3. M. Roderick Galdes, Secrétaire parlementaire chargé de l'agriculture, de la pêche et des droits des animaux, a lui aussi souhaité la bienvenue aux participants et salué les efforts remarquables du CSC et du Secrétariat de la CGPM, en particulier pour ce qui concerne l'élaboration du Cadre de référence pour la collecte des données de la CGPM (CRCD) et les activités menées en vue d'établir des plans de gestion commune des ressources halieutiques. À ce sujet, il a mentionné les problèmes afférents aux stocks partagés par différentes flottes et souligné l'importance de la collaboration entre les pays voisins, tout en saluant le soutien des projets régionaux de la FAO dans ce domaine.

4. M. Abdellah Srour, Secrétaire exécutif de la CGPM, a tenu à remercier en son nom et au nom de M. Stefano Cataudella, Président de la CGPM, le Gouvernement maltais pour son aimable hospitalité et l'excellente organisation de la réunion. Il a souligné la qualité de la participation et des contributions apportées pendant la période intersessions, qui ont permis d'améliorer les évaluations de stocks et la collecte de données, d'asseoir davantage les prises de décisions sur des avis scientifiques et de faire une plus grande place aux plans de gestion pluriannuels. Cependant, d'autres mesures devront être prises pour moderniser la CGPM, comme le recommande l'examen des performances. Saluant avec enthousiasme la

contribution de la FAO et de ses projets régionaux, il a déclaré qu'il souhaitait ardemment que cette collaboration soit renouvelée.

ADOPTION DE L'ORDRE DU JOUR

5. Après avoir présenté les participants et les observateurs, M. Henri Farrugio, Président du CSC, a donné la parole au Secrétariat de la CGPM, qui a informé les participants des modalités d'organisation de la session.

6. L'ordre du jour a été adopté avec de petites modifications et figure à l'Annexe A. On trouvera la liste des documents à l'Annexe C.

ACTIVITÉS INTERSESSIONS

Examen des recommandations formulées par la CGPM à sa trente-septième session concernant la gestion des pêches

7. Le Secrétaire exécutif de la CGPM a rappelé les principales décisions adoptées à la trente-septième session de la Commission, à savoir: i) Résolution CGPM/37/2013/1 relative à la gestion des pêches par zone, notamment grâce à la création de zones de pêche réglementée dans la zone de compétence de la CGPM et à la coordination avec des initiatives du Plan d'action pour la Méditerranée du Programme des Nations Unies pour l'environnement (PNUE-PAM) concernant la création d'aires spécialement protégées d'intérêt méditerranéen (ASPIM); ii) Résolution CGPM/37/2013/2 concernant la gestion de la capacité de pêche dans la zone de compétence de la CGPM ; iii) Recommandation CGPM/37/2013/1 relative à un plan de gestion pluriannuel des pêches pour les stocks de petits pélagiques dans la sous-région géographique 17 de la CGPM (Adriatique Nord) et relative à des mesures de conservation transitoires pour la pêche concernant les stocks de petits pélagiques dans la sous-région géographique 18 (Adriatique Sud) ; et iv) Recommandation CGPM/37/2013/2 relative à la définition d'un ensemble de normes minimales pour la pêche du turbot au filet maillant de fond et pour la conservation des cétacés en mer Noire.

8. Le Président a souligné que les recommandations adoptées nécessitaient souvent un suivi de la part du CSC afin d'analyser les indicateurs ou de fournir d'autres contributions scientifiques. C'est pourquoi il a invité instamment les pays concernés à veiller à ce que les données nécessaires soient bien transmises afin que le CSC puisse s'acquitter des tâches que la

Commission lui confie, faute de quoi le CSC se verrait obligé d'informer la Commission d'éventuelles contraintes s'opposant à l'exercice de cette tâche.

Vue d'ensemble des réalisations du Comité scientifique consultatif entre les sessions

9. En s'appuyant sur le document GFCM:SAC16/2014/2, le Président a présenté les activités menées par le CSC entre les sessions. Il a informé les délégués que 15 réunions avaient été organisées, notamment celles des quatre sous-comités et du premier Symposium régional sur la pêche artisanale durable en Méditerranée et dans la mer Noire, outre des ateliers du Programme-cadre sur la pêche illicite, non déclarée et non réglementée (INDNR) et sur les plans de gestion des pêches.

10. Le Président a commencé par informer le CSC des activités du Sous-comité des statistiques et de l'information (SCSI), en soulignant le travail effectué en rapport avec l'analyse du projet de Cadre de référence pour la collecte des données qui doit servir de repère pour la collecte et la transmission de données au niveau sous-régional. Il a examiné la situation des membres au regard de l'application des mesures en matière de communication des données et des informations, notamment en ce qui concerne les registres des navires (données sur les flottes) et la Tâche 1.

11. Le Président a ensuite informé le CSC que le Sous-comité des sciences économiques et sociales (SCSES) avait accordé une attention particulière à la détermination d'une méthode commune d'analyse socioéconomique et proposé des variables et des indicateurs socioéconomiques à insérer dans le nouveau Cadre de référence pour la collecte des données de la CGPM.

12. En ce qui concerne le travail effectué par le Sous-comité de l'environnement et des écosystèmes marins (SCEEM), qui s'est penché sur des questions spécifiques dans le cadre de deux ateliers techniques et d'un groupe de travail (sur le corail rouge, les récifs artificiels et les aires marines protégées, respectivement), il a présenté en particulier les objectifs opérationnels figurant dans le projet de Plan de gestion du corail rouge et le projet de Directives pratiques pour les récifs artificiels en Méditerranée et en mer Noire.

13. Le Président a signalé que le Sous-comité de l'évaluation des stocks (SCES) avait émis des avis pour 39 évaluations, dont 34 en Méditerranée (25 relatifs aux espèces démersales et

neuf aux espèces de petits pélagiques), et cinq dans la mer Noire (trois pour les espèces démersales et deux pour les espèces de petits pélagiques). Il s'est inquiété de l'état des stocks de poissons démersaux, compte tenu de la surexploitation constatée pour 21 d'entre eux. En ce qui concerne les stocks de petits pélagiques, il a rappelé les résultats des 11 évaluations de stocks effectuées et a exprimé les mêmes préoccupations au regard de la situation de surpêche de ces stocks.

14. Enfin, il a présenté les principales activités du Groupe de travail sur la mer Noire. Il a rappelé que ce dernier avait émis des avis de gestion pour les cinq stocks évalués au cours de la première réunion du Groupe sous-régional de l'évaluation des stocks pour la mer Noire, avait approuvé des éléments pour la gestion de la pêche au turbot en mer Noire, et décidé des activités à mener concernant la mise en œuvre du protocole d'accord existant avec la Commission de la mer Noire.

15. Lors des débats qui ont suivi, le délégué tunisien a proposé de créer un groupe de travail sur les technologies de la pêche opérant sous les auspices du CSC. La plupart des participants ont appuyé cette proposition mais ont souligné la nécessité de mieux définir le mandat de ce groupe et d'établir des priorités, compte tenu du large éventail de questions pouvant relever de l'expression générale «technologies de la pêche». Les difficultés inhérentes aux pêches plurispécifiques ainsi que le problème des rejets et leur réduction ont été mentionnés comme des thèmes prioritaires auxquels ce groupe devait travailler.

16. Le Comité est convenu d'insérer dans le plan de travail du CSC la proposition relative à la tenue d'une première réunion de l'atelier sur les technologies de la pêche en concomitance avec le SCEEM. Les représentants des projets régionaux de la FAO ont fait savoir qu'ils travaillaient déjà sur cette question et ont offert leur soutien technique à cette activité.

Activités de recherche menées par des États membres

17. Le Secrétariat de la CGPM a présenté une synthèse des informations figurant dans les 17 rapports nationaux reçus (Annexe I a) et b)) donnant une vue d'ensemble des changements relatifs à la taille et à la production des flottes des membres de la CGPM et mettant en évidence : i) le nombre croissant d'évaluations des stocks nationaux réalisées par des membres de la CGPM qui, malheureusement, ne les communiquaient pas systématiquement aux groupes de travail de la Commission chargés de ces questions; ii) une progression

remarquable du nombre d'études socioéconomiques ainsi que du nombre d'enquêtes sur l'effort de pêche et de prospections biologiques avec, également, l'appui des projets régionaux de la FAO; iii) le manque d'informations sur les prises accidentelles de requins, de raies et de cétacés, informations qui auraient dû être transmises à la Commission en application de ses recommandations en la matière.

18. Après cette présentation, le délégué de la Croatie a informé les participants que l'augmentation de la taille de la flotte croate n'était pas due à l'ajout de nouveaux navires de pêche, mais à la prise en compte des bateaux de pêche artisanale dans l'inventaire, rendue possible par les nouveaux systèmes de collecte de données, plus performants. De même, la réduction observée de la flotte maltaise était due à un changement de méthode de collecte de données, étant entendu que les bateaux de plaisance n'avaient pas été pris en compte, contrairement à l'année précédente, où l'on avait communiqué, sur la flotte, des données plus complètes couvrant tous les secteurs. Le délégué de l'Algérie a expliqué que, malgré la volonté des autorités de son pays de geler la flotte à titre de mesure de gestion de précaution, une légère augmentation du nombre de bateaux de pêche petits métiers avait été autorisée en raison des contraintes socioéconomiques, et qu'elle avait entraîné une progression du volume total des prises déclarées.

19. L'élaboration par le Secrétariat d'un formulaire en ligne destiné à faciliter la transmission des rapports nationaux a été saluée comme une bonne pratique potentielle. Grâce à des fonctionnalités améliorées, cela permettrait de mieux préciser la nature des projets de recherche en place. Les participants sont convenus qu'à titre d'essai pilote, les rapports nationaux pourraient être transmis l'année suivante à l'aide de ce nouvel outil en ligne, et ce à titre volontaire. Cet outil permettrait en outre au Secrétariat de stocker des données selon un processus plus normalisé et d'effectuer des analyses comparatives entre les sous-régions, les pays et sur plusieurs années.

Principales activités et initiatives menées dans le cadre des projets régionaux de la FAO

20. Les activités réalisées dans le cadre des projets régionaux de la FAO (AdriaMed, CopeMed II, ArtFiMed, EastMed, MedSudMed, MedFisis, MedLME) durant la période intersessions ont été présentées, notamment les activités de recherche, les programmes de formation, les ateliers et les groupes de travail, ainsi que l'assistance technique apportée aux

pays et aux activités du CSC. Il a été rappelé aux délégués qu'ils trouveraient des informations détaillées sur les activités et les produits des projets dans le rapport annuel des comités de coordination des différents projets et dans le document GFCM:SAC16/2014/Inf.22.

21. Le CSC a salué le travail considérable entrepris dans le cadre des projets régionaux de la FAO ainsi que la valeur de leurs contributions scientifiques, et a félicité chacun pour sa participation au renforcement de la coopération avec la CGPM. Les délégués ont également souligné l'importance des projets de la FAO compte tenu de l'appui que ceux-ci apportent aux pays et à la CGPM.

22. Les délégués de l'Albanie et du Monténégro, en particulier, ont rappelé le rôle stratégique joué par AdriaMed, seul projet à regrouper tous les pays de l'Adriatique dans un cadre de coopération mis à la disposition des institutions nationales compétentes. Ils ont évoqué l'importance d'AdriaMed pour le développement futur des pêches dans les pays concernés et dans la mer Adriatique de manière générale.

23. Les délégués de l'Égypte et du Liban ont salué le rôle d'EastMed dans leur sous-région, en insistant sur le fait que sans cet appui, plusieurs activités relatives à la collecte et au traitement de données ne pourraient pas être mises en œuvre dans leurs pays respectifs.

24. Le délégué de la Tunisie a mis en avant le rôle essentiel du projet MedSudMed, qui était entré dans une nouvelle phase de coopération, avec un partage et une analyse conjointe des données et un appui à la formulation de la gestion des pêches dans la sous-région. Il a indiqué qu'il serait souhaitable de tirer parti des projets régionaux pour s'attaquer à des sujets tels que les technologies de pêche. À cet égard, il a proposé de constituer un catalogue des engins de pêche utilisés en Méditerranée à partir des documents et des informations publiés au niveau national (Tunisie, Algérie, etc.).

25. Le Comité a rappelé le rôle important joué depuis longtemps par CopeMed (phases I et II), premier projet régional en Méditerranée à avoir lancé les activités de coopération actuellement menées dans la zone de la CGPM. Il a été rappelé que la future phase des projets régionaux serait examinée au cours de la trente-huitième session de la Commission, ce qui donnerait l'occasion aux pays méditerranéens de s'entendre sur un nouveau cadre de coopération entre la CGPM et les projets régionaux de la FAO.

EXAMEN DES ACTIVITÉS DU GROUPE SPÉCIAL ET DU PROGRAMME-CADRE QUI INTÉRESSENT LE COMITÉ SCIENTIFIQUE CONSULTATIF

Examen de questions intéressant le Comité scientifique consultatif traitées dans le cadre du processus d'amendement des textes de la Commission générale des pêches pour la Méditerranée

26. Le Secrétaire exécutif a rappelé le travail qui avait été accompli par le Groupe spécial pour la modernisation du cadre juridique de la CGPM ainsi que les activités connexes menées à bien grâce au programme-cadre. Il a souligné en particulier l'approche ascendante et participative que la CGPM avait adoptée pour que tous les acteurs concernés puissent donner leur avis, contribuant ainsi à l'élaboration d'une série de textes concernant la modification de l'Accord portant création de la CGPM et du règlement y afférent. Dans les textes proposés, plusieurs dispositions spécifiques pourraient avoir, à l'avenir, une incidence sur le Comité scientifique consultatif (CSC), entre autres: i) la promotion de l'approche sous-régionale; ii) la mise en place du mécanisme d'examen pour la prise de décision; iii) l'utilisation éventuelle du glossaire du CSC, dont le contenu exigerait d'être révisé périodiquement. Le Secrétaire exécutif a rappelé que le processus de consultation se poursuivrait lors de la session extraordinaire de la CGPM, qui devrait avoir lieu en avril 2014.

Examen des activités menées dans le cadre de la phase préliminaire du Programme-cadre et présentation des activités en cours du Programme-cadre

27. M. Miguel Bernal, du Secrétariat de la CGPM, a présenté les réalisations du Programme-cadre en 2013 et 2014, notamment: i) la détermination d'éléments pour la gestion de pêches choisies en Méditerranée et en mer Noire, émanant d'ateliers sur la gestion des pêches organisés au niveau sous-régional; ii) la feuille de route sur la pêche illicite, non déclarée et non réglementée, qui a été élaborée pour la Méditerranée en s'inspirant de celle qui avait été validée durant l'atelier qui s'est tenu dans la région de la mer Noire durant la période intersessions précédente, ainsi que les actions de suivi prévues dans ce domaine; iii) la mise au point définitive du projet de Cadre de référence pour la collecte de données et exigences connexes en matière de données à fournir; iv) les principales conclusions du premier Symposium sur la pêche artisanale durable et les mesures prévues pour leur mise en œuvre; v) les indicateurs et cibles proposés pour l'objectif écologique n° 3 du PNUE-PAM relatif aux espèces de poissons exploitées à des fins commerciales ; et iv) les activités de coopération en cours avec d'autres organisations (ACCOBAMS, CIEM, CIHEAM, etc.). Le CSC a été invité à donner un retour d'informations sur le contenu technique des activités, notamment en ce qui

concerne leur complémentarité avec le travail effectué et les possibilités qui s'offrent dans ce domaine.

28. Le CSC a noté les nombreuses réalisations et s'est félicité des résultats des activités entreprises dans le contexte du Programme-cadre, ainsi que du travail accompli par le Secrétariat. Au sujet, en particulier, de la pêche artisanale, le CSC s'est félicité de l'intérêt suscité par le Symposium et ses activités de suivi, ainsi que de leur impact.

29. Le délégué du Maroc a indiqué que les données recueillies au moyen du Cadre de référence devraient être analysées en premier lieu par le Secrétariat avant d'être mises à la disposition du CSC et de ses sous-comités et groupes de travail, qui les utiliseront comme base pour donner des avis. Il a ajouté que les ressources financières nécessaires pour respecter les exigences du Cadre de référence devraient être identifiées.

30. Lors des débats qui ont suivi, le CSC s'est interrogé sur les conséquences potentielles des différentes activités pour les membres et s'est montré favorable à une hiérarchisation des activités de suivi en indiquant qu'il était nécessaire que de nouvelles informations sur les fonds disponibles soient fournies.

31. Le Secrétariat a précisé que pour la plupart des activités qui pourraient être entreprises dans le contexte du programme cadre, des fonds étaient déjà disponibles grâce aux projets en cours, et expliqué que le CSC était invité à fournir, le cas échéant, ses contributions techniques, et à coopérer, par l'intermédiaire d'institutions nationales, à la bonne mise en œuvre de ces activités.

32. Le Comité a été informé au sujet du projet de coopération pour l'utilisation durable des ressources biologiques marines en Méditerranée (MedSuit). Ce projet, financé par le Ministère italien de l'environnement par le biais du programme-cadre de la CGPM, a récemment été créé afin: i) d'harmoniser les critères de définition d'objectifs environnementaux ii) de déterminer l'état des populations marines exploitées et iii) de définir les exigences en matière de suivi de sorte que puisse être conservé un bon niveau du point de vue environnemental. Le Comité a invité instamment les délégations à participer à la réunion de lancement, qui devrait avoir lieu en Italie dans le courant du deuxième semestre de 2014 et de veiller à cet effet à la coordination entre les administrations nationales concernées afin de

faire en sorte que des spécialistes des questions marines stratégiques prennent part aux activités conduites dans le cadre de ce projet.

FORMULATION D'AVIS DANS LE DOMAINE DE LA GESTION ET DE LA RECHERCHE HALIEUTIQUES

Conclusions et recommandations du Sous-comité des statistiques et de l'information (SCSI)

33. M. Alaa El-Haweet, coordonnateur du SCSI, a présenté les conclusions et recommandations du Sous-comité en s'appuyant sur les documents GFCM:SAC16/2014/2 et GFCM:SAC16/2014/Inf.6. Il a indiqué que le SCSI avait examiné la proposition de Cadre de référence pour la collecte des données de la CGPM (CRCD) et avait apporté des contributions techniques, notamment l'ajout du numéro OMI comme champ obligatoire dans les données relatives aux flottes, aux fins de compatibilité avec le Fichier mondial de la FAO. Il a ajouté que le SCSI avait également suggéré que soit organisée une réunion régionale afin de mettre en œuvre le Cadre de référence pour la collecte des données et avait insisté sur la nécessité i) de renforcer les processus nationaux de collecte et de transmission de données (notamment en ce qui concerne la Tâche 1 et les registres des navires), ii) d'apporter une assistance aux pays concernés dans le cadre des programmes d'échantillonnage menés au niveau sous-régional et iii) d'améliorer la collecte de données sur la pêche artisanale.

34. Le coordonnateur a précisé en outre que le SCSI avait proposé d'établir un système de transmission des données nécessaires entre le registre des flottes de l'Union européenne et le Secrétariat de la CGPM, et de mettre au point une stratégie qui permettrait éventuellement d'exploiter les données acquises au moyen du système de surveillance des navires par satellite (SSN) pour évaluer les stocks et les populations de poissons. Pour finir, il a informé les participants que le SCSI apportait tout son soutien au travail entrepris par le Secrétariat de la CGPM en vue de développer des solutions informatiques exploitant la technologie du « nuage » (ou *cloud*) pour diffuser les données/informations, et a rappelé la nécessité d'évaluer les incidences, sur le plan technique, de l'harmonisation des décalages entre les limites utilisées dans le quadrillage statistique de la CGPM et certaines sous-régions géographiques.

35. Le délégué du Monténégro a fait observer, au sujet de la liste des espèces prioritaires figurant dans le Cadre de référence pour la collecte de données, que certaines des espèces

figurant à l'Annexe A du CRCD revêtaient peu d'importance pour certains pays. Le Secrétariat a confirmé que ce problème avait été résolu dans le projet final du Cadre de référence, lequel prévoyait des dérogations dans ces cas de figure.

36. Le délégué de la Tunisie a fait remarquer que les données du système SSN ne figuraient pas dans le Cadre de référence pour la collecte de données, alors qu'une recommandation formulée au sein de la CGPM prévoyait la mise en œuvre de ce système à compter de 2012 pour les navires de plus de 15 mètres. Les participants ont débattu de l'utilité des données du SSN pour appuyer la formulation d'avis et de leur future intégration dans le Cadre de référence, et le CSC a proposé d'organiser un atelier, éventuellement au sein du Programme-cadre de la CGPM, afin de déterminer la meilleure façon de recevoir, d'intégrer et d'analyser les données du SSN, grâce à des études de cas pilotes spécifiques sur le sujet.

37. À propos de la composante du Cadre de référence relative aux flottes et de la question soulevée par le délégué du Liban, le Secrétariat a expliqué que les informations sur l'obtention du numéro OMI ne seraient rendues obligatoires que pour les navires de plus de 15 mètres.

38. La représentante d'Oceana a rappelé les suggestions formulées par le SCEEM sur l'importance de tenir compte des prises accidentelles d'espèces vulnérables dans le nouveau cadre de collecte de données. À cet égard, le Comité a été informé que cette question avait déjà été traitée lors de la mise à jour de la proposition de Cadre de référence pour la collecte de données.

39. Au terme du débat, le Comité a pris acte de l’importance d’établir un Cadre de référence pour la transmission des données à la CGPM, a approuvé le cadre de référence et convenu de le soumettre à la Commission afin qu’elle puisse l’examiner et, éventuellement, l’adopter à sa trente-huitième session.

Conclusions et recommandations du Sous-comité des sciences économiques et sociales (SCSES)

40. M. Scander Ben Salem, coordonnateur du SCSES, a présenté les recommandations du Sous-comité en s'appuyant sur les documents GFCM:SAC16/2014/2 et GFCM:SAC16/2014/Inf.7. Il a rappelé que, donnant suite à la recommandation du CSC, le SCSES avait axé ses travaux sur quelques questions choisies, à savoir: i) la conception d'une méthode commune pour réaliser les analyses socioéconomiques; ii) la révision des variables

socioéconomiques incluses dans le Cadre de référence pour la collecte de données; iii) la nécessité de continuer à travailler sur la pêche artisanale (document GFCM:SAC16/2014/Inf.24), y compris en élaborant un programme régional; et iv) l'intégration d'études socioéconomiques dans la gestion des stocks à l'aide de la méthode commune proposée.

41. M. Davide Fezzardi, du Secrétariat de la CGPM, a rendu compte des progrès accomplis dans l'élaboration d'un programme régional sur la pêche artisanale. De brèves réunions parallèles à celles du CSC ont été organisées durant les deux premiers jours de la session du CSC et des éléments fondamentaux pour la réalisation de ce programme (figurant à l'Annexe H) ont été rédigés en coopération avec les délégations et seront consolidés dans une note conceptuelle en vue de la trente-huitième session de la Commission. Les points abordés concernant essentiellement la définition d'études de cas possibles sur la pêche artisanale, sélectionnées de façon à couvrir un éventail de situations géographiques et socioéconomiques et en rapport avec les cinq séances thématiques tenues à l'occasion du premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire.

Conclusions et recommandations du Sous-comité de l'environnement et des écosystèmes marins (SCEEM)

42. En l'absence de M. Federico Alvarez, coordonnateur du SCEEM, Mme Pilar Hernández, du Secrétariat de la CGPM, a présenté les conclusions et les recommandations du Sous-comité en s'appuyant sur les documents GFCM:SAC16/2014/2 et GFCM:SAC16/2016/Inf.5. Elle a insisté sur les principaux aboutissements des activités menées par le SCEEM pendant la période intersessions, à savoir: i) l'élaboration de directives pratiques sur les récifs artificiels en Méditerranée et en mer Noire; ii) les éléments d'un plan de gestion régional du corail rouge (GFCM:SAC16/2014/4); et iii) l'examen de la situation actuelle des zones de pêche à accès réglementé et l'harmonisation des modèles utilisés par les différentes organisations internationales pour la présentation des demandes d'établissement de nouvelles aires protégées. dans le cadre du Groupe de travail sur les aires marines protégées

43. Se référant aux résultats des travaux du Groupe de travail sur les aires marines protégées, la représentante d'Oceana a souligné que des cas d'infractions avaient été observés dans des zones de pêche à accès réglementé et a demandé quelle était la procédure à suivre en cas de non-application des recommandations en vigueur concernant les zones de pêche à

accès réglementé. Elle a également insisté sur les difficultés rencontrées pour obtenir les données relatives aux pêches que demandait le modèle révisé *pour les propositions de création de nouvelles zones de pêche à accès réglementé*, et a demandé une certaine souplesse dans les champs du modèles concernés. À cet égard, elle a attiré l'attention des délégués sur la nécessité de mettre les données requises à disposition et a invité les pays à avancer des propositions pour la déclaration de nouvelles zones de pêche à accès réglementé ainsi que pour l'appui à des programmes de recherche, en particulier pour ce qui est des zones au large des côtes. Enfin, elle a recommandé la tenue d'une seconde réunion du Groupe de travail. Le Secrétaire exécutif a rappelé que les questions relatives à l'application devaient être traitées dans le cadre du Comité d'application de la CGPM.

44. Le Secrétaire exécutif de l'Accord de Monaco sur la conservation des cétacés de la mer Noire, de la Méditerranée et de la zone Atlantique adjacente (ACCOBAMS) a donné au Comité des informations sur un plan d'action pour la conservation des cétacés en mer Noire, et l'a informé du lancement d'un nouveau projet pour l'évaluation et la réduction des prises accidentelles de cétacés, de tortues de mer, d'oiseaux marins et autres espèces menacées en Méditerranée, qui devrait être financé par la Fondation MAVA et mis en œuvre en collaboration avec la CGPM et le Centre d'activités régionales pour les aires spécialement protégées (CAR/ASP). Le représentant du CAR/ASP a insisté sur l'importance de ce projet, dont les objectifs étaient en harmonie avec les plans d'action régionaux de la Convention de Barcelone.

45. S'agissant du corail rouge, le Comité a fait siennes les conclusions de l'atelier et les éléments d'un plan de gestion régional pour le corail rouge, qui seraient présentés à la Commission, pour examen.

46. Le Comité a approuvé les directives pratiques sur les récifs artificiels en Méditerranée et en mer Noire, telles qu'elles figurent dans le document GFCM:SAC16/2014/Inf.21.

47. Le Secrétariat a rappelé les indicateurs proposés pour l'évaluation du bon état écologique des poissons, des mollusques et des crustacés faisant l'objet d'une exploitation commerciale, tels qu'élaborés dans le cadre du processus de l'approche écosystémique du processus PNUE-PAM et du protocole d'accord signé en 2012 entre la CGPM et le PNUE-PAM (on trouvera le texte intégral de la proposition dans le document

GFCM:SAC16/2014/Inf.25). Il a souligné que certains des indicateurs proposés pour les principaux stocks halieutiques exploités dans la zone de compétence de la CGPM faisaient l'objet d'évaluations régulières au sein du Groupe de travail sur l'évaluation des stocks (prises, mortalité par pêche, biomasse du stock reproducteur, par exemple), précisant que d'autres indicateurs n'étaient généralement pas évalués dans le cadre de la Commission, ou exigeaient, pour certains, des informations qui n'étaient disponibles que dans certaines zones et n'étaient pas régulièrement fournies à la Commission (les prospections scientifiques en mer, par exemple).

48. Au cours des débats qui ont suivi, les participants sont convenus que le CSC et ses sous-comités et groupes de travail devaient procéder à une analyse plus approfondie des indicateurs qui ne faisaient pas l'objet d'évaluations régulières au sein des Groupes de travail sur l'évaluation des stocks, ainsi que des informations permettant de les obtenir, et ont indiqué qu'un point spécialement consacré à cette question devait être inscrit à l'ordre du jour des réunions que les sous-comités concernés tiendraient durant la période intersessions suivante. Par ailleurs, un certain nombre de participants ont insisté sur les synergies potentielles et le chevauchement possible avec les objectifs et les indicateurs figurant dans la Directive-cadre «stratégie pour le milieu marin» de l'Union européenne. À cet égard, le Secrétariat a informé que la participation du PNUE-PAM et de la CGPM au sein des instances européennes compétentes permettait d'assurer une étroite collaboration avec la Commission européenne sur cette question.

Conclusions et recommandations du Sous-comité sur l'évaluation de stocks (SCES)

49. M. Francesco Colloca, coordonnateur du SCES, a présenté les conclusions du Sous-comité en s’appuyant sur les documents GFCM:SAC16/2014/2 et GFCM:SAC16/2014/Inf.14. Il a noté que des avis ont été fournis pour 39 stocks au total, dont 34 en Méditerranée (25 pour les espèces démersales et 9 pour les espèces de petits pélagiques), et cinq dans la mer Noire (3 pour les espèces démersales et 2 pour les espèces de petits pélagiques). Pour ce qui concerne les stocks de la Méditerranée, on considère que trois stocks d'espèces démersales et deux stocks de petits pélagiques font l'objet d'une exploitation durable, tandis que 29 autres stocks (22 pour les espèces démersales et 7 pour les petits pélagiques) sont diversement menacés – surexploitation, étant soit surexploités, soit en déséquilibre écologique. Dans la mer Noire, on considère que deux stocks de petits pélagiques

font l'objet d'une exploitation durable, tandis que les trois stocks d'espèces démersales évalués sont épuisés, surexploités ou en état de surexploitation.

50. Le coordonnateur a ensuite résumé les conclusions et les recommandations du SCES, qui comportent: i) une proposition de cadre donnant des conseils pour la formulation d'avis et de recommandations sur l'état des stocks et les points de référence, ainsi que sur la manière de présenter les avis émanant des groupes de travail sur l'évaluation des stocks; ii) des directives visant à améliorer les modèles d'évaluation utilisés dans les groupes de travail sur l'évaluation des stocks; iii) une révision des points de référence pour les espèces de petits pélagiques, sur la base de l'analyse effectuées par le Groupe de travail du SCES sur l'évaluation des stocks de petits pélagiques; et iv) des observations techniques au sujet de la Recommandation GFCM/37/2013/1 sur la gestion des pêches de petits pélagiques en mer Adriatique.

51. Le Président a pris acte de ce que le nombre et la couverture des évaluations présentées par le SCES ne cessaient de croître et suggéré, s'agissant de certains stocks d'espèces démersales, de fournir des avis sur une base pluriannuelle afin de réduire et de classer par ordre de priorité le nombre de stocks soumis à une évaluation annuelle. Il a aussi salué l'harmonisation de la méthodologie (points de référence, description de l'état des stocks et avis de gestion) utilisée par le SCES et ses groupes de travail associés pour formuler des avis.

52. Le Comité s'est déclaré préoccupé par le fait que seuls sept stocks étaient exploités de manière durable et que la mortalité par pêche pour certains stocks était beaucoup plus élevée que celle qui était fixée. Par ailleurs, le délégué tunisien a souligné les déséquilibres existant au niveau sous-régional en ce qui concerne les informations de base disponibles et le nombre de stocks évalués, comme en témoigne le nombre moins important d'évaluations fournies par le SCES pour les sous-régions du sud et de l'est.

53. Le délégué de l'UE a présenté un aperçu des activités menées actuellement en vue de l'évaluation des stocks de la Méditerranée en fonction des critères de production maximale équilibrée (PME). Il en ressort aussi qu'il existe un déséquilibre géographique en matière d'informations relatives à l'évaluation des stocks, que les avis relatifs à la plupart des espèces faisant l'objet d'évaluations régulières étaient en général cohérents au fil du temps, et que les résultats des analyses effectuées étaient en cohérence avec ceux présentés au CSC. Il a aussi

indiqué que, d'après les premiers résultats, la quantité de stocks en état de surpêche avait augmenté dans les séries chronologiques analysées, tout en signalant qu'il s'agissait de résultats provisoires qui devaient être confirmés.

54. Le Comité a noté que la stabilité des avis fournis pour les espèces évaluées régulièrement allait dans le sens de la suggestion tendant à réduire le nombre de stocks faisant l'objet d'une analyse annuelle. Cela permettrait de consacrer plus de temps à l'analyse approfondie des données, des hypothèses et des modèles utilisés, afin de fournir des avis sur une base pluriannuelle. Le coordinateur du SCES a aussi fait observer qu'il fallait associer l'amélioration de la couverture géographique à celle de la collecte des données sur les sous-régions pour lesquelles les informations sur l'état des stocks sont actuellement réduites, ce que le nouveau Cadre de référence de la CGPM pour la collecte des données (CRCD) permettraient de faciliter.

55. La représentante d'Oceana a fait remarquer que, selon les conclusions du SCES, plus de 85 pour cent des stocks évalués étaient surexploités, et qu'il fallait donc prendre des mesures immédiates pour améliorer la situation. Au vu de ces observations, elle a demandé instamment aux délégués de communiquer à leurs autorités respectives l'état alarmant des stocks. Le Président a souligné qu'une réduction générale de la mortalité par pêche s'imposait et les délégués ont insisté sur le fait que des plans de gestion devaient être mis en œuvre afin de garantir une exploitation durable.

56. Les délégués égyptien et turc ont discuté de la manière dont il fallait fournir des avis de gestion sur *Saurida undosquamis* (espèce lessepsienne) dans les sous-régions géographiques 24 et 26. Le délégué égyptien a mentionné que l'espèce était présente dans la région depuis longtemps, qu'elle devenait la cible d'une importante pêche locale et qu'elle ne devait plus être considérée comme une espèce envahissante. Le délégué turc a indiqué que puisque *S. undosquamis* était un poisson piscivore, l'avis de gestion actuel préconisant de réduire la mortalité par pêche de cette espèce dans la sous-région géographique 26 devrait prendre en compte l'équilibre proie/prédateur ainsi que le niveau de mortalité par prédation d'autres espèces importantes sur le plan écologique et commercial. À la lumière de ce qui précède, le CSC a suggéré que le SCEEM et le SCES étudient plus à fond le rôle de cette espèce dans la région et la façon dont on pourrait fournir au mieux des avis à cet égard.

57. Le Comité a examiné plusieurs aspects qu'il conviendrait d'intégrer dans les plans de gestion, notamment la sélectivité des engins de pêche, les données obtenues au moyen du système de surveillance des navires par satellite, les prises accessoires et le recours à des fermetures spatiales et temporelles, en tant que mesures de gestion. Il a aussi été souligné qu'il était important de prendre en compte le point de vue des pêcheurs professionnels dans l'élaboration des plans de gestion. Le Comité a souligné qu'il était important que le CSC, à sa session annuelle, examine et adopte les aspects techniques des plans de gestion de la CGPM.

58. Dans le cas de l'anchois dans la sous-région géographique 17, le Comité a examiné de près les modèles d'évaluation, les hypothèses et les données utilisées pour ce stock durant la session de 2014 du Groupe de travail sur l'évaluation des stocks de petits pélagiques, ainsi que les observations correspondantes du Sous-comité de l'évaluation des stocks. À cet égard, il a noté en particulier qu'on avait utilisé plus d'un modèle d'évaluation, ce qui avait abouti à plusieurs perspectives différentes concernant l'évolution de la biomasse du stock et avait empêché le Groupe de travail de proposer des points de référence actualisés. Le Comité a par ailleurs souligné qu'il y avait une erreur dans les points de référence visés dans la Recommandation CGPM/37/2013/1. Compte tenu de ce qui précède, le Comité a invité la Commission à envisager la possibilité de réviser les éléments techniques contenus dans la Recommandation CGPM/37/2013/1 en tenant compte des conclusions du CSC.

59. Au vu de l'examen ci-dessus, le Comité a approuvé l’évaluation de état des stocks et les avis préconisant de réduire la mortalité par pêche pour les stocks d’anchois et de sardines dans la sous-région géographique GSA 17 fournis par le Sous-comité de l'évaluation des stocks (SCES) tels qu'ils figurent au tableau 1 de l'Annexe D. Toutefois, le CSC a estimé que l’ajustement de la mortalité par pêche tel qu’il était proposé par la Recommandation CGPM/37/2013/1 et présenté dans l’avis du SCES pourrait ne pas être approprié, du fait des questions soulevées au paragraphe 58. Pour tous les autres stocks évalués, le Comité a fait sien les avis du SCES tel qu’ils figurent à l’Annexe D. En outre, il a appuyé la *Proposition de cadre pour la description de l’état des stocks et la formulation d’avis de gestion en fonction des points de référence*, présentée à l'Annexe F.

60. Le Comité a aussi fait siennes les propositions d'éléments techniques relatives aux plans de gestion énoncés à l'Annexe G, qui seront soumises à l'examen de la Commission à sa trente-huitième session, à savoir : i) petits pélagiques en mer d'Alboran; ii) populations mixtes

de merlu et de crevettes dans le détroit de Sicile; iii) crevette rose du large en Méditerranée orientale; et iv) turbot en mer Noire.

61. Compte tenu de la nécessité de veiller à ce que les avis du Comité se traduisent par des actions concrètes pour réduire la pression de pêche sur les stocks, le Secrétaire exécutif a proposé que les délégations désignent les stocks pour lesquels il conviendrait d'agir d'urgence et pour lesquels des mesures de gestion propres à améliorer la situation ont été déterminées, qu'elles se mettent d'accord avec d'autres délégations selon qu'il conviendra, et qu'elles élaborent des projets de recommandation sur la gestion pour examen par la Commission. Le Comité s'est félicité de la proposition et a suggéré que dans certains cas celles-ci soient mises au point dans le cadre d'ateliers organisés à cette fin et/ou avec l'appui du Secrétariat.

Conclusions et recommandations du Groupe de travail ad hoc sur la mer Noire

62. M. Violin Raykov, vice-coordonnateur du Groupe de travail ad hoc sur la mer Noire, a fait un tour d'horizon des principales activités relatives à la mer Noire qui ont été menées pendant la période intersessions. Ces activités font l'objet des documents GFCM:SAC16/2014/Inf.10, Inf.11, Inf.17 et GFCM:SAC16/2014/7. Il a informé le Comité que les avis en matière de gestion, fournis par le Groupe sous-régional sur l'évaluation des stocks pour la mer Noire et validés par le Sous-comité de l'évaluation des stocks, en ce qui concerne les cinq stocks évalués en mer Noire, avaient également été examinés par le Groupe de travail ad hoc, qui avait formulé des observations sur la suite à donner.

63. Il a aussi indiqué que le Groupe de travail ad hoc sur la mer Noire avait recensé une série d'activités à réaliser dans le cadre de l'ACCOBAMS et en collaboration avec la Commission de la mer Noire, au titre des protocoles d'accord en vigueur, et approuvé les *Éléments pour la gestion des pêches de turbot dans la région de la mer Noire*.

64. Il a souligné que, compte tenu de l'importance présumée des captures liées à la pêche illicite, non déclarée et non réglementée concernant les stocks de la mer Noire, le Groupe de travail ad hoc recommandait ce qui suit: i) améliorer la surveillance des pêches dans la région afin de faire baisser le niveau des captures non déclarées; ii) réduire la pêche illicite, non déclarée et non réglementée, en tant que condition préalable indispensable à la réduction de la mortalité par pêche, qui a été conseillée pour des stocks tels que le turbot; et iii) incorporer les

estimations relatives à la pêche illicite, non déclarée et non réglementée dans l'évaluation de l'état des stocks.

65. Le Comité a pris acte des travaux du Groupe de travail ad hoc sur la mer Noire et a salué les progrès significatifs accomplis en mer Noire pour ce qui est de l'évaluation des stocks et des plans de gestion. Il s'est aussi félicité de la poursuite de la coopération dans le cadre du protocole d'accord avec la Commission de la mer Noire. La participation à la fois des membres et de non-membres à ces activités a été saluée et le Groupe de travail ad hoc sur la mer Noire a été encouragé à poursuivre son action de coordination.

EXAMEN DU PLAN DE TRAVAIL PRÉLIMINAIRE DU CSC POUR 2014–2015

66. Le Secrétariat a présenté le plan de travail des quatre sous-comités du CSC et du Groupe de travail ad hoc sur la mer Noire, en s'appuyant sur le document GFCM:SAC16/2014/2 et les rapports connexes (documents GFCM:SAC16/2014/Inf.5 à Inf.10), et en tenant compte des propositions avancées par les délégations lors des débats qui se sont déroulés au cours de la session. Le CSC est convenu des activités suivantes pour chacun des sous-comités:

Sous-comité des statistiques et de l'information

- Effectuer une évaluation au niveau national dans chaque pays de la CGPM en vue d'améliorer la collecte de données sur la pêche artisanale;
- Organiser une réunion régionale afin de mettre en œuvre le cadre de référence pour la collecte de données au titre du programme-cadre de la CGPM et en collaboration avec les projets régionaux de la FAO.

Sous-comité des sciences économiques et sociales (SCSES)

- Élaborer une méthodologie commune pour réaliser la collecte de données socioéconomiques relatives aux navires de pêches sans licence;
- Réunir le deuxième Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire en connexion avec le projet régional proposé sur la pêche artisanale, en 2015 ou 2016.

Sous-comité de l'environnement et des écosystèmes marins (SCEEM)

- Organiser un atelier au titre du programme-cadre sur les élasmobranches en Méditerranée et dans la mer Noire (dont le cadre de référence est fourni à l'Annexe E);
- S'agissant de la réduction des prises accidentelles d'espèces vulnérables, dans le cadre des activées menées par la CGPM, le CAR/ASP, l'ACCOBAMS et certains pays, notamment:
    - Produire du matériel et des brochures d'information sur les bonnes pratiques afin de réduire la mortalité par pêche des tortues de mer, qui pourront être téléchargés à partir du site web de la CGPM (compte tenu du matériel existant).
    - Rassembler les informations existantes sur les outils techniques et les mesures de gestion permettant de réduire les prises accidentelles d'oiseaux de mer et de phoques moines (compte tenu du matériel existant).
- Mettre en œuvre les actions suivantes en vue des futures réunions du Groupe de travail sur les aires marines protégées:
    - Recenser les zones nationales soumises à des mesures de gestion spatiale des activités de pêche conformément aux dispositions de la législation nationale (fermetures saisonnières, restrictions concernant les engins de pêche, etc.).
    - Étudier la possibilité d'attribuer des catégories de gestion des aires protégées de l'Union internationale pour la conservation de la nature (UICN) aux zones de pêche à accès réglementé de la CGPM et aux zones soumises à des mesures de gestion spatiale des activités de pêche.
    - Dans le cadre du Protocole d'accord CGPM – PNUE-PAM et en collaboration avec le CAR/ASP, envisage la possibilité de réaliser:
        - une étude pilote afin de tester de nouvelles désignations conjointes des aires marines protégées adoptées par plusieurs institutions;
        - une étude sur les habitats profonds et les écosystèmes marins vulnérables en vue d'évaluer la faisabilité de protéger les zones de profondeur inférieure à 1000 mètres ainsi que les implications pour les pêches associées.

Sous-comité de l'évaluation des stocks (SCES)

- Incorporer dans le prochain ordre du jour des groupes d'experts chargés de l'évaluation des stocks (à savoir les Groupes de travail sur l'évaluation des stocks et le Groupe sous-régional sur l'évaluation des stocks en mer Noire) une séance spécialement consacrée à l'examen des avis relatifs à l'état des stocks figurant dans la Recommandation GFCM/37/2013/1;
- Régulièrement mettre à jour le glossaire du CSC en y versant les modèles utilisés par les groupes d'experts chargés de l'évaluation des stocks.

Groupe de travail sur la mer Noire

- Procéder à une analyse comparative des méthodes d'évaluation des stocks pour la liste des stocks prioritaires recensés;
- Mettre au point les éléments constitutifs d'un plan de gestion sur le turbot en mer Noire, en suivant la structure, les critères et les mesures minimaux proposés pour des plans de gestion pluriannuels relatifs à la pêche du turbot dans la mer Noire (GFCM:SAC16/2014/7).

67. Le Comité est convenu de la liste des sessions pour 2014-2015, telle qu'elle figure ci-après, et a subdivisé les activités comme suit, afin que la Commission puisse aisément les classer par ordre de priorité: i) sessions ordinaires du CSC et de ses sous-comités et groupes de travail; ii) réunions à tenir dans le contexte du programme-cadre (réunions déjà planifiées et pour lesquelles des fonds extrabudgétaires sont identifiés); et iii) réunions nouvellement proposées. S'agissant des activités relatives à la pêche artisanale, le Secrétariat a précisé que les fonds nécessaires à l'élaboration d'une note conceptuelle étaient déjà assurés, tandis que des discussions étaient en cours avec les parties prenantes concernées (Département des pêches et projets régionaux de la FAO, CIHEAM, MedPAN, WWF – tous partenaires du premier Symposium) et les donateurs pour le lancement d'un projet régional sur la pêche artisanale et l'organisation d'un deuxième symposium.

Réunions du CSC	Lieu/date
SCES Groupe de travail sur l'évaluation des stocks d'espèces démersales et de petits pélagiques, y compris une session sur l'évaluation des stocks de la Méditerranée et de la mer Noire pour lesquels on dispose de données limitées	Rome (à confirmer) Octobre-novembre 2014
Réunion du Groupe sous-régional sur l'évaluation des stocks en mer Noire (SGSABS) (éventuellement consécutive à la réunion du Groupe consultatif sur la pêche de la Commission de la mer Noire)	Seront fixés ultérieurement Octobre-décembre 2014
Session des sous-comités du CSC (SCES, SCEEM, SCSI, SCSES), y compris une session sur les technologies de pêche	Rome (à confirmer) Octobre-novembre 2014
Réunion de coordination des sous-comités	Seront fixés ultérieurement
Quatrième session du Groupe de travail sur la mer Noire	Géorgie Début 2015
Dix-septième session du Comité scientifique consultatif (CSC)	Rome (à confirmer) mars 2015

Réunions relevant du programme-cadre	Lieu/date
Atelier sur les études scientifiques en mer Noire: harmonisation des méthodes de sondage et d'analyse des données	Seront fixés ultérieurement, en 2014-2015
Atelier sur la mise en œuvre du Cadre de référence pour la collecte de données en Méditerranée et en mer Noire, y compris sur les données relatives au SSN et sur une méthodologie commune pour la collecte et l'analyse de données socioéconomiques	Seront fixés ultérieurement, en 2014-2015
Atelier de suivi sur l'application de la feuille de route concernant la pêche INDNR	Seront fixés ultérieurement, en 2014-2015
Atelier de suivi sur la mise en œuvre de mesures de gestion relatives à certaines études de cas en Méditerranée et en mer Noire	Seront fixés ultérieurement, en 2014-2015
Atelier sur la conservation des élasmobranches	Sète (France) 2014
Réunion initiale du projet MedSuit	Italie 2014
Deuxième Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire	Algérie 2015/2016

Nouvelles réunions proposées	Lieu/date
Groupe de travail conjoint CEICPAI/CGPM/CIEM sur l'anguille (WGEEL)	Tunisie Novembre 2014
Deuxième réunion du Groupe de travail sur les aires marines protégées (WGMPA) (si possible consécutive à la réunion du CAR/ASP sur les ASPIM)	Tunisie Juin 2015

68. Le CSC a pris note de l'offre de membres de la CGPM qui ont proposé d'accueillir certaines réunions, sous réserve de confirmation par les autorités compétentes de leurs pays. Il a été rappelé que la réalisation des activités serait subordonnée à la disponibilité des fonds nécessaires.

69. Les représentants de l'ACCOBAMS, d'Oceana, du CAR/ASP, du PNUE-PAM et du WWF et du ont proposé un mandat pour la deuxième réunion du Groupe de travail sur les aires marines protégées (on trouvera le mandat à l'Annexe E). Soulignant le lieu et les dates potentiels, les représentants du PNUE-PAM et CAR/ASP ont fait valoir qu'une réunion sur l'évaluation des aires spécialement protégées d'intérêt méditerranéen (ASPIM) étant déjà prévue en juin 2015 en Tunisie, la réunion du Groupe de travail sur les aires marines protégées pourrait être tenue dans la foulée.

70. Le CSC a invité instamment les coordinateurs des sous-comités concernés à fournir le cadre de référence de toutes les activités proposés afin de faciliter leur examen par la Commission à sa trente-huitième session ainsi que leur approbation et l'octroi des fonds budgétaires s'y rapportant.

ÉLECTION DU BUREAU DU CSC

71. Toutes les délégations ont rendu un hommage appuyé à M. Henri Farrugio (France) pour son travail assidu en tant que Président et son investissement dans les travaux du CSC pendant les six années de son mandat, ainsi qu'à M. Othman Jarboui (Tunisie) et M. Atig Huni (Libye), premier vice-président et deuxième vice-président respectivement, et ont exprimé leur profonde gratitude pour le dévouement exceptionnel dont ils ont fait preuve durant leur mandat.

72. Le Secrétaire exécutif s'est référé aux articles 7 et 8 du règlement intérieur de la CGPM, relatifs à l'élection et aux fonctions du Bureau. Sur la base de l'information fournie, le Comité a élu à l'unanimité M. Othman Jarboui (Tunisie) au poste de Président du CSC et M. Ali Cemal Gucu (Turquie) et Mme Capucine Mellon (France) en tant que premier vice-président et deuxième vice-présidente respectivement.

73. Le Secrétariat a été invité à envoyer une lettre aux pays d'origine des membres du Bureau nouvellement élu afin de demander aux autorités compétentes de faciliter, dans la mesure du possible, les travaux du Président et des Vice-présidents ainsi que ceux des coordinateurs des sous-comités et groupes de travail du CSC.

QUESTIONS DIVERSES

74. Le Comité a recensé un certain nombre de facteurs qui nuisaient au bon fonctionnement du CSC et de ses sous-comités et groupes de travail, à savoir: i) une faible participation aux réunions techniques; ii) la définition pas assez précise des rôles respectifs du Comité et des sous-comités et groupes de travail; iii) la nécessité d'une plus forte participation des coordonnateurs et des bureaux aux activités du Comité; et iv) la nécessité d'assurer une meilleure communication entre les membres du CSC, y compris au niveau national.

75. S'agissant du problème du faible taux de participation aux réunions techniques, il a été rappelé au Comité qu'il appartenait aux Parties contractantes d'assurer la participation de leurs délégués et experts nationaux aux travaux du CSC et de ses sous-comités et groupes de travail. Il a également été souligné que, compte tenu de la situation actuelle dans la région, il serait profitable d'introduire, au niveau de la CGPM, un mécanisme financier permettant de faciliter la participation aux réunions; les participants ont également insisté sur la nécessité de renforcer le rôle des projets régionaux de la FAO à cet égard.

76. Concernant la nécessité d'une définition plus claire des fonctions du CSC et de ses sous-comités et groupes de travail, le Comité a indiqué que leurs mandats respectifs devaient être régulièrement révisés et mis à jour, compte tenu de la modernisation en cours de la CGPM et des discussions connexes relatives à la modification de son cadre juridique et institutionnel.

AUTRES QUESTIONS

77. Au sujet de la nécessité d'améliorer la communication entre les membres et le Secrétariat, et d'assurer une bonne coordination au niveau national, le Comité s'est dit favorable à la formule faisant appel à la visioconférence avec des points focaux ou entre membres du Bureau. Il a en outre pris note que les dispositifs SharePoint mis au point par le Secrétariat permettraient de créer des comptes de courriel réservés à la CGPM prêts à être utilisés prochainement, avec, à la clé, la possibilité de travailler de manière interactive.

78. Il a été question de la nécessité de confier aux points focaux du CSC un mandat clairement formulé; le Comité est convenu qu'il fallait en établir un projet qui serait porté à l'attention du CSC à sa session suivante. Il serait entre autres demandé aux points focaux de soumettre au Bureau et au Secrétariat des rapports trimestriels sur les progrès accomplis et/ou les activités conduites au niveau national intéressant le CSC. Le Comité a suggéré que soit étudiée la possibilité d'envoyer aux points focaux les principaux documents du CSC par voie postale avant les sessions, sous réserve de l'accord de la Commission quant aux répercussions budgétaires. Enfin, le Comité a invité instamment les délégations à communiquer, avant la tenue de la trente-huitième session de la Commission, une liste actualisée des points focaux nationaux au CSC et à ses sous-comités en se fondant sur le modèle que le Secrétariat aurait porté à leur connaissance.

79. Pour terminer, le Comité est convenu de donner un nouveau souffle à la Réunion de coordination des sous-comités et d'en promouvoir les fonctions d'origine afin de faciliter la formulation et l'intégration de conseils de diverses natures émanant des différents sous-comités et groupes de travail du CSC. Il a été décidé à cet effet de faire en sorte que des rapporteurs soient désignés pour les réunions du CSC, parallèlement aux travaux de rédaction de comptes rendus fournis par le Secrétariat.

80. Le représentant de MedArtNet a évoqué le succès du premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire ainsi que la signature d’un accord historique pour la mise en place d’une plateforme de coopération entre pêcheurs à l’échelon régional et sous-régional. Il a remercié la CGPM d’avoir octroyé à son association le statut d’observateur et a souligné que l’invitation à assister à la session qui avait été faite par le CSC

était un signe encourageant de l'importance accordée par la CGPM à la participation des organisations de pêcheurs au processus décisionnel.

81. Le Comité a remercié le Gouvernement maltais d'avoir accueilli la réunion avec beaucoup d'hospitalité. Il a plus particulièrement fait part de sa gratitude au Ministre du développement durable, de l'environnement et du changement climatique pour son zèle et pour son excellente collaboration, sans lesquels l'organisation et le bon déroulement des travaux n'auraient pas été possibles. Les conditions de travail exceptionnelles offertes par Malte ont été extrêmement appréciées de tous les délégués.

82. Le Président et les délégués ont félicité le Secrétariat de la CGPM pour l'excellent travail accompli entre les sessions, notamment dans la préparation et l'organisation de la réunion du CSC.

DATE ET LIEU DE LA PROCHAINE SESSION

83. Le Comité est convenu qu'une décision sur les dates et le lieu de la suivante session du CSC serait prise lors de la trente-huitième session de la Commission

ADOPTION DU RAPPORT

84. Le rapport, avec ses annexes, a été adopté jeudi 20 mars 2014.

APPENDICES

English only

Appendix A

Agenda

1. **Opening and arrangements for the session**
2. **Adoption of the agenda**
3. **Intersessional activities**
   - **Review of the recommendations of the thirty-seventh session of GFCM concerning the management of fisheries**
   - Report by the Chairperson: overview of SAC achievements during the intersession
   - Specific actions in the Black Sea
   - **Research activities by Member Countries**
   - Major activities and initiatives of the FAO regional projects
4. **Review of the relevant Task Force and Framework Programme (FWP) activities concerning the SAC**
   - Review of selected matters addressed within the GFCM amendment process of relevance to SAC
   - Review of activities carried out under the preliminary phase of the FWP and introduction of ongoing FWP activities
     - Activities related to governance, including management plans and environmental protection
     - Activities related to data collection
     - Activities related to small-scale fisheries
     - Sub-regional cooperation and cooperation with other agencies
5. **Formulation of advice in the field of fishery management and research**
     - Conclusions and recommendations related to statistics and information
     - Conclusions and recommendations related to economic and social sciences
     - Conclusions and recommendations related to marine environment and ecosystems
     - Conclusions and recommendations related to stock assessments
6. **Review of SAC preliminary work plan for 2014–2015**
7. **Election of the SAC Bureau**
8. **Any other matter: functioning of the GFCM**
9. **Date and place of the next session**
10. **Adoption of the report**

Appendix B

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APPENDIX C

List of documents

GFCM:SAC16/2014/1	Provisional agenda and timetable
GFCM:SAC16/2014/**2**	Executive report for the SAC intersessional activities
GFCM:SAC16/2014/**3**	Proposal for a GFCM Data Collection Reference Framework (DCRF)
GFCM:SAC16/2014/**4**	Proposal for a regional management plan for red coral (excerpt from document GFCM:SAC16/2014/Inf.16)
GFCM:SAC16/2014/5	Proposal for a minimum structure of management plans in selected case studies in the Mediterranean (excerpt from document GFCM:SAC16/2014/Inf.18)
GFCM:SAC16/2014/6	Proposal for a GFCM Framework for describing stock status and providing management advice in relation to reference points
GFCM:SAC16/2014/**7**	Proposal for a minimum structure of management plans for turbot fisheries in the Black Sea (Available only in English)
GFCM:SAC16/2014/Inf.1	List of documents
GFCM:SAC16/2014/Inf.2	Provisional list of participants
GFCM:SAC16/2014/Inf.3	Report of the thirty-seventh session of the General Fisheries Commission for the Mediterranean (GFCM) (Croatia, 13–17 May 2013)
GFCM:SAC16/2014/Inf.4	Report of the fifteenth session of the Scientific Advisory Committee (SAC) (FAO HQ, 8–11 April 2013) (bilingual)
GFCM:SAC16/2014/Inf.5	Report of the fourteenth session of the Subcommittee on Marine Environment and Ecosystems (SCMEE) (Montenegro, 4–5 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.6	Report of the fourteenth session of the Subcommittee on Statistics and Information (SCSI) (Montenegro, 4–5 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.7	Report of the fourteenth session of the Subcommittee on Economic and Social Sciences (SCESS) (Montenegro, 4–5 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.8	Report of the fifteenth session of the Subcommittee on Stock Assessment (SCSA) (Montenegro, 3–4 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.9	Research activities in Member countries

GFCM:SAC16/2014/Inf.10	Report of the third meeting of the Working Group on the Black Sea (Turkey, 26–28 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.11	Report of the Workshop to test the feasibility of implementing multiannual management plans in the Black Sea (Turkey, 24–25 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.12	Report of the SCMEE First Working Group on Marine Protected Areas (Montenegro, 2 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.13	Report of the SCESS Working Group on Common methodology to carry out socio-economic analysis (Montenegro, 2 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.14	Report of the SCSA Working Group on Stock Assessment of Demersal Species (Montenegro, 28 January – 1 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.15	Report of the SCSA Working Group on Stock Assessment of Small Pelagic Species (Montenegro, 28 January – 1 February 2014) (Available only in English)
GFCM:SAC16/2014/Inf.16	Report of the Workshop on Regional Management Plan for red coral (Belgium, 21-22 January 2014) (Available only in English)
GFCM:SAC16/2014/Inf.17	Report of the Sub-regional group on stock assessment for the Black Sea (Romania, 14–16 January 2014) (Available only in English)
GFCM:SAC16/2014/Inf.18	Report of the Framework Programme (FWP) Sub-Regional Workshop on Fisheries Management for Western, Central and Eastern Mediterranean (Tunisia, 7–10 October 2013) (Available only in English)
GFCM:SAC16/2014/Inf.19	Report of the Workshop on IUU Fishing in the Mediterranean Sea (Tunisia, 3–4 October 2013) (Available only in English)
GFCM:SAC16/2014/Inf.20	Report of the CoC Working group on VMS and related control systems in the GFCM Area (Tunisia, 1–2 October 2013) (Available only in English)
GFCM:SAC16/2014/Inf.21	Report of the Workshop on Artificial Reefs in the Mediterranean and the Black Sea (Turkey, 27 September 2013) (Available only in English)
GFCM:SAC16/2014/Inf.22	Major activities of the FAO regional projects (Available

	only in English)
GFCM:SAC16/2014/Inf.23	Practical Guidelines for Artificial Reefs in the Mediterranean and Black Sea (final draft) (Available only in English)
GFCM:SAC16/2014/Inf.24	Conclusions of the First Regional Symposium on sustainable small-scale fisheries in the Mediterranean and the Black Sea (Malta, 27–30 November 2013) (Available only in English)
GFCM:SAC16/2014/Inf.25	Proposal on the definition of Good Environmental Status and associated indicators and targets for commercially exploited fish and shellfish populations (Available only in English)
GFCM:SAC16/2014/Inf.26	Summary of data collection gaps and needs of GFCM Members (outcomes of 2013 FWP questionnaires) (Available only in English)

Appendix D

Stock assessments for small pelagic, demersal and Black Sea stocks, as reviewed by SAC

Table 1 – Assessments for small pelagic stocks, as reviewed by SAC

GSA	Species	Methodology used	Stock status	Management advice	WGSASP comments	SCSA comments	SAC comments
GSA 01	Sardine, *Sardina pilchardus*	Indirect method: BioDyn (Surplus production Model)	Sustainably exploited Trend in landings is stable. Exploitation rate is lower than the Patterson's reference point (E=0.36). B_{cur}/B_{MSY}=1.31 $F_{current}$ (0.33) is below $F_{0.1}$ (0.5).	Not to increase fishing mortality	Uncertainty in the assessment and methodological problems in incorporating acoustic time series in the production model, so the model only relies on CPUE, which is very similar to the landings. The WGSASP suggested to evaluate the trend in effort data and that CPUE is evaluated independently to its performance in the production model. The WGSASP recommended the use of available time series both for CPUE and acoustic abundance indices. In the case of fitting problems, alternative production model should be tested. The area should be covered yearly with an independent survey.	The SCSA endorsed stock status and advice and stressed the limitation of the use of only CPUE indexes on production model. The SCSA agreed with the comments of the WG.	The SAC endorsed the advice
GSA 06	Anchovy, *Engraulis encrasiclous*	Indirect method: BioDyn (Surplus production Model)	Sustainably exploited Increasing trend in landings and biomass from acoustic $F_{current}$ (0.18) is lower than F_{MSY} reference point (0.25). Exploitation rate is lower than the Patterson's reference point (E=0.24). Current biomass is above B_{MSY}.	Not to increase fishing mortality	Uncertainty in the assessment and methodological problems in incorporating acoustic time series in the production model, so the model only relies on CPUE which in this case is very similar to the landings. The WGSASP suggested that CPUE is evaluated independently to its performance in the production model. The WGSASP recommended the use of available time series both for CPUE and acoustic abundance indices. In the case of fitting problems, alternative production model should be tested. Empirical RP not reliable since an historical maximum or minimum is not obvious in the time series available.	The SCSA endorsed stock status and advice and stressed the limitation of the use of only CPUE indexes on production model. The SCSA agreed with the comments of the WG.	The SAC endorsed the advice

GSA	Species	Methodology used	Stock status	Management advice	WGSASP comments	SCSA comments	SAC comments
GSA 06	Sardine, *Sardina pilchardus*	Indirect method: BioDyn (Surplus production Model)	Overexploited and in Overexploitation. Both landings and CPUE decreasing. Exploitation rate is higher than the Patterson's reference point (E = 0.46). $F_{current}$ (0.42) is higher than the $F_{0.1}$ reference point (0.25). $B_{current}$ is below B_{MSY} (B_{curr}/B_{MSY}=0.37).	Reduce fishing mortality. Apply a multiannual management plan.	Uncertainty in the assessment and methodological problems in incorporating acoustic time series in the production model, so the model only relies on CPUE, which in this case is very similar to the landings. The WGSASP suggested that CPUE is evaluated independently to its performance in the production model. The WGSASP recommended the use of available time series both for CPUE and acoustic abundance indices. In the case of fitting problems, alternative production model should be tested. The declining trend is clear and in accordance with the acoustic. The exercise on reconstructed time series of biomass based on harvest rate seems to be coherent with acoustic estimates and point out for low biomass.	The SCSA endorsed stock status and advice and stressed the limitation of the use of only CPUE indexes on production model. The SCSA agreed with the comments of the WG. The SCSA recommended that the current Management Plan in place is confronted to these scientific advices.	The SAC endorsed the advice
GSA 07	Anchovy, *Engraulis encrasiclous*	Direct method by acoustics and harvest rate from catches / acoustic	Depleted Low exploitation rate and very low biomass, low commercial-sized anchovy abundance. Declining trend in landings and biomass. Current biomass is below B_{pa} (27,308) and slightly above B_{lim} (13,654).	Implement a recovery plan (including monitoring on biological parameters and limits on effort)	Biomass is more or less stable in this stock since 2005, with a slight increasing trend in 2011, but in 2012 the stock estimate decreased. Average size and condition of anchovy remains low. Unusual high acoustic energy close to the surface in all the area in 2013: extra uncertainty on the estimates due to difficulties in catch the signal and lower success in trawling.	The SCSA agreed with the comment from the WG but in line with the discussion on reference point at SC level, suggested to consider the stock status as "low biomass" and the management advice to be "reduce fishing mortality". The SCSA recommended that the current Management Plan in place is confronted to this scientific advice.	The SAC endorsed the advice

GSA	Species	Methodology used	Stock status	Management advice	WGSASP comments	SCSA comments	SAC comments
GSA 07	Sardine, *Sardina pilchardus*	Direct method by acoustics and harvest rate from catches / acoustic	Unbalanced Landings continue decreasing, the biomass is stable, high recruitments, but the fish are small and in poor conditions.	Fishing mortality should not be allowed to increase, monitoring of changes in the fishing effort/gears required.	This year the juvenile-adult partition was not done (disappearance of the two modes and changes in growth). There is a change in the fishery: in 2012 purse seiners contribute to 95% of the catch of sardine (previously around 20%). Measures of effort should be improved (e.g. number of "fishing sets" for purse seiners).	The SCSA endorsed stock status and advice and considered this assessment as qualitative. The SCSA recommended that the current Management Plan in place is confronted to this scientific advice.	The SAC consider the status of the stock as Ecologically unbalanced, in light of the analysis carried out
GSA 16	Sardine, *Sardina pilchardus*	Harvest Rate and Surplus production model (BioDyn)	Overexploited and in overexploitation $F_{Current}$ (0.18) is below the sustainable fishing mortality at current biomass levels (F_{cur}/F_{SYCur}=0.74) but above F_{MSY} (F_{MSY}=0.16; F_{cur}/F_{MSY}=1.11). B (16415) < B_{MSY} (32830) $B_{current}$ is above B_{lim} but below B_{pa}.	Fishing mortality should be reduced by means of a multi-annual management plan.	The role of the environmental index in the population and in the model fitting procedure is unclear. Further analysis in the model fitting behaviour should be investigated (e.g. testing other environmental factors, sensitivity analysis on seed values…). The WGSASP suggested to look at the monthly catches and the LFD of the catches.	The SCSA endorsed stock status and advice and pointed out that Fcurrent is 11% higher than FMSY. Given the low level of biomass it should be recommended to reduce fishing mortality immediately.	The SAC endorsed the advice

GSA	Species	Methodology used	Stock status	Management advice	WGSASP comments	SCSA comments	SAC comments
GSA 16	Anchovy, *Engraulis encrasiclous*	Harvest Rate and Surplus production model (BioDyn)	In overexploitation Exploitation rate is higher than the Patterson's reference point (E=0.42) Model trial provides a high exploitation rate.	Fishing mortality should be reduced by means of a multi-annual management plan.	The assessment is uncertain. The catches and the biomass estimates provide opposite trends and the performances of the model are low. The WGSASP suggested to look at the monthly catches and the LFD of the catches. The overall picture shows a decreasing trend in biomass, a harvest rate that is fluctuating up to really high values (in 2011 was about 80%) and an increase in F.Empirical RP not reliable since an historical maximum or minimum is not obvious in the time series available.	The SCSA endorsed stock status and advice and accepted that the assessment is considered to be qualitative.	The SAC endorsed the advice
GSA 17	Sardine, *Sardina pilchardus*	SAM tuned by acoustic Tests with ICA and ASAP tuned by acoustic	Increased risk of overexploitation. Exploitation rate is higher than the Patterson's reference point (E=0.42). $B_{current}$ is above both limit and precautionary reference point. Positive trend. Harvest rate is equal to 26%.	Do not increase fishing mortality and revise stock advice next year.	The WGSASP chose the SAM model as the final assessment due to better performance. All models tested provide similar estimates in the recent years, nevertheless there are discrepancies in the historical perspective. Catch data and acoustic data show some inconsistencies in the abundance by age trend (cohorts signal). Partial coverage of the eastern acoustic survey in the last two years: analysis of spatial variability should be desirable. Some differences in the ALK between the eastern and western data were identified. The WGSASP recommended a revision of the input-basic data (e.g. age structure) including testing the use of recent biological data (length structure and ALKs) from the Eastern area in the older part of the eastern landings time series, instead of data from the Western area.	In line with the discussion on reference point at SC level, SCSA suggested to consider the stock status as "increased risk of being overexploited and in overexploitation" and the management advice to be "reduce fishing mortality". In relation to the GFCM management plan approved for small pelagic fish in the Adriatic Sea the current status of the stock would be classified in option 16d – ii of the plan, and therefore the advice will be to adapt F by a ratio of 0.935	The SAC advice is to reduce fishing mortality

GSA	Species	Methodology used	Stock status	Management advice	WGSASP comments	SCSA comments	SAC comments
GSA 17	Anchovy, *Engraulis encrasiclous*	Both ICA and SAM with acoustic tuning are considered for the advice.	Overexploited and in overexploitation Exploitation rate is higher than the Patterson's reference point (E=0.48-0.57). Biomass level is at a low level (between 12-19 percentile of the biomass estimates)	Fishing mortality should be reduced and the existing management plan should be applied.	Both models were retained to provide a comprehensive advice. The recent perspective is consistent, but models provide a different historical perspective; ICA 2012, ICA 2013 and SAM all give a different perspective in both maximum and minimum biomass and some variability in F for the more recent years. Terminal F shows a large drop (probably unreliable) with a large CI. Due to unclear historical perspective, previously adopted reference points were considered not reliable. Advice was therefore provided on a precautionary basis (exploitation rate and biomass percentiles). The WGSASP recommended that the discrepancies of the different models should be further investigated. Partial coverage of the Eastern acoustic survey in the last two years: analysis of spatial variability should be desirable. Some differences in the ALK between the Eastern and Western data were identified. The WG recommends a revision of the input-basic data (e.g. age structure) including testing the use of recent biological data (length structure and ALKs) from the eastern area in the older part of the Eastern landings time series, instead of data from the Western area.	The SCSA endorsed stock status and advice. In relation to the GFCM management plan approved for small pelagic fish in the Adriatic Sea the current status of the stock would be classified in option 16d – ii of the plan, and therefore the advice will be to adapt F by a ratio of 0.935	The SAC advice is to reduce fishing mortality

Table 2 - Assessments for demersal stocks, as reviewed by SAC

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 01	European hake, *Merluccius merluccius*	Catch, effort Lfreq catch & trawl surveys	2003-2012	XSA tuned with CPUE from commercial fleet and MEDITS data.	High overfishing Relative intermediate biomass	7.4	A reduction of the current fishing mortality is recommended by reducing the fishing effort and improving the selection pattern of the fishery.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 7 times higher than the Fmsy.	The SAC endorsed the advice
GSA 03	European hake, *Merluccius merluccius*	Catch, CPUE, trawl surveys, Lfreq (commercial and surveys)	2003-2012	a) VIT (LCA,VPA,Y/R) b) ExcelSheet1 (Y/R) c) ExcelSheet2 (LCA, Y/R) M=0,2 d) ExcelSheet2 (LCA, Y/R) M=0,5 e) ExcelSheet2 (LCA, Y/R, M vector) f) Biodyn (Production Model)	Uncertain	a) 4.5-5 (2007, 2008) b) 8.3-9.1 (2007, 2008) c) 8,33 (2007, 2008) d)6,7 (2007, 2008) e) 2,9 (2007, 2008) f) 1.0 (2003-2012)	No management advice could be derived from the results. The assessment was not endorsed.	The original VPA showed some problems: it merged information from the fleet and from the surveys, M was used as a scalar not as a vector and the production model used a short data series, without clear contrasts reflecting substantial changes in fishing effort, as recommended last year. The assessment was re-run using VIT for the 2 years in which commercial data was available (2007-2008), but the results were not used for providing management advice as they were considered too old. A trial comparing trends from commercial CPUEs and survey data was carried out, trying to produce qualitative assessment, but there was not a clear correspondence between both series of data. It was recommended to use SURBA in the following years.	The SCSA agreed with the WG comments. However, considering the overfishing status of the fishery in 2007-2008, it was advised that any increase of fishing effort/catches of hake in this area should be avoided until a new assessment of the stock is available.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 05	European hake, *Merluccius merluccius*	Catch, effort, Lfreq catch & trawl surveys	2000-2012	XSA and Y/R analysis	In high overfishing status with relative high biomass	8.4	To reduce fishing mortality.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 8 times higher than the Fmsy.	The SAC endorsed the advice
GSA 07	European hake *Merluccius merluccius*	Catch, effort, Lfreq catch (French and Spanish trawlers, French gillnetters and Spanish longliners), trawl surveys	1998-2012	XSA and Y/R analysis	In High overfishing status; relative low biomass	12.2	- Improve the fishing pattern of the trawlers so that the minimum length of catches is consistent with the minimum legal landing size - reduce the effort of trawlers, longliners and gillnetters. - Freezing of the effort in the Fishery Restricted Area	The WGSAD was informed that some management measures have been taken since 2011 (reduction from 2010 to 2012 by 20% of the number of trawlers). This measure was enforced in 2013. Also, temporary closure for the trawlers (1 month per year) is enforced since 2011.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 12 times higher than the Fmsy.	The SAC endorsed the advice
GSA 12, 13, 14, 15, 16	European hake, *Merluccius merluccius*	Catch & Lfreq catch	2010-2012	LCA, Y/R analysis	The stock is in high overfishing and low biomass level	5.8	F should be reduced and the fishing pattern improved by increasing the selectivity of gears	LCA run by year, and combining the last three years, showed similar results. The WGSAD agreed to consider the results of the last year (2012) as reference for advice. WGSAD agreed on assessment results and management advice provided.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. SCSA pointed out that Fcurrent is about 8 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 18	European hake, *Merluccius merluccius*	Catch, effort, Lfreq catch, trawl surveys	survey data: 1996-2012; catch data: 2007-2012	XSA; ALADYM	High overfishing	5.6	Stock is in overfishing status and intermediate biomass (estimates on the MEDITS time series). The stock is characterized by fluctuations of recruitment and abundance, which contribute to sustain the catches. The stock is in overfishing as current fishing mortality exceeds the $F_{0.1}$ levels (1 vs. 0.18) and thus a considerable reduction of the fishing mortality is necessary to allow the achievement of $F_{0.1}$. Objectives of a more sustainable harvest strategy could be achieved with a multiannual plan that foresees a reduction of fishing mortality through fishing limitations. As observed in 2012, the production of hake in GSA 18 is split in 17% caught by Italian longlines, 74% by Italian trawlers, about 1% by Montenegrin trawlers and about 8% by Albania trawlers.	No specific comments on this stock.	The endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 5 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 17	Common sole, *Solea solea*	Trawls surveys, catch, Lfreq catch & Lfreq catch	1970-2012 (SCAA); 2006-2012 (XSA)	XSA, SCAA with SS3	High overfishing with relative low biomass level.	3.0	A reduction of fishing mortality towards the proposed reference point is advised. Considering the overexploited situation and the low values of SSB and biomass of the sole stock in GSA 17 a reduction of fishing pressure and an improvement in exploitation pattern is advisable, especially of Italian rapido trawlers and gillnetters, which mainly exploit juveniles. The best option to reduce effort and improve the exploitation pattern for sole in GSA 17, would be to introduce a closure for rapido trawling within 17 km of the Italian coast during the summer-fall period (June- December). Moreover, it was noted that in the last years some Italian artisanal fleets fish with gill net in the main spawning area during periods when trawling is prohibited. Additional measures to restrict exploitation of sole in the spawning area are desirable, to afford further protection of the Adriatic sole stock.	The WGSAD appreciated the comparison between the two models provided, as requested by last year's WG.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 3 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 05	Red mullet, *Mullus barbatus*	Catch, trawl surveys & Lfreq catch.	2000-2012	XSA and Y/R	High overfishing status with relative low biomass level.	6.6	To reduce fishing mortality.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. SCSA pointed out that Fcurrent is about 6 times higher than the Fmsy	The SAC endorsed the advice
GSA 06	Red mullet, *Mullus barbatus*	Total annual landings, annual catch in number by size class, abundance index from commercial fleet an MEDITS surveys	1995-2012	XSA, Y/R	High overfishing and relative intermediate biomass level.	1.8	A reduction in fishing mortality towards the $F_{0.1}$ level is advised. A progressive reduction in fishing effort is recommended.	The use of 40mm square or 50mm diamond mesh has improved the exploitation pattern. Age groups 0-1 were predominant in catches until 2010. From 2011 onwards age groups 1-2 are predominant.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice
GSA 07	Red mullet, *Mullus barbatus*	Commercial and survey catch at age	2004-2012	XSA, Y/R	High Overfishing with relative high biomass level.	4.0	-Improve the fishing pattern of trawlers, so that the minimum length of catches is consistent with the minimum legal landing size -Reduce the effort of trawlers -Freezing the effort in the fishery Restricted Area	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 4 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 10	Red mullet, *Mullus barbatus*	Trawl surveys, catch & Lfreq catch.	survey data: 1994-2012; catch data: 2006-2012	XSA	Sustainably exploited with relative intermediate biomass level.	0.8	It is recommended to not increase the relevant fleets' effort and/or catches to maintain fishing mortality in line with the agreed reference point and to avoid future loss in stock productivity and landings.	No specific comments on this stock.	The SCSA endorsed the assessment and advice.	The SAC endorsed the advice
GSA 17	Red mullet, *Mullus barbatus*	Trawls surveys, catch, Age freq catch	2006-2012	XSA, Y/R	High overfishing status with relatively intermediate high biomass level.	5.3	A reduction fishing mortality towards the proposed reference point is advised. Considering the overfishing situation of the red mullet stock in GSA 17 a reduction of fishing pressure and an improvement in exploitation pattern, especially of Italian trawlers exploiting a larger amount of Age 0+ group than Croatian and Slovenian trawlers, is advisable. However, from the analysis of the relative biomass observed in 2012 from MEDITS and from the SSB and total biomass estimated for the same year from XSA is possible to conclude that the abundance of the stock is high and there is not risk of stock depletion.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 5 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 19	Red mullet, *Mullus barbatus*	Catch, Lfreq catch, trawl surveys	2006-2012 (commercial) 1994-2012 (survey)	LCA, Y/R	High overfishing status with relative intermediate biomass level.	3.1	Considering the results of the analyses, the objectives of a more sustainable harvest strategy could be achieved with a multiannual plan based on a reduction of the fishing mortality through fishing activity limitations and possibly fishing capacity decreasing, mostly focused on trawling.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 3 times higher than the Fmsy.	The SAC endorsed the advice
GSA 05	Striped red mullet, *Mullus surmuletus*	Catch, trawl surveys & Lfreq catch.	2000-2012	XSA, Y/R and short term forecasts	High overfishing status with relative low biomass level.	3.0	To reduce fishing mortality.	The decrease in biomass and recruitment in the last two years is not connected with the dynamics of effort that is constant. This apparent contradiction is difficult to understand and could be related to changes in the fishing exploitation pattern related to market demands (it is a multispecific fishery), changes in selectivity or in the ecosystem.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 3 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 15-16	Striped red mullet, *Mullus surmuletus*	Trawl surveys, catch & Lfreq catch	2002-2012	XSA, Y/R	High overfishing status with relative intermediate biomass level.	4.1	To reduce the current F toward the proposed FMSY, in order to avoid future loss in stock productivity and landings. This should be achieved by means of a multi-annual management plans, considering also reduction in the relevant fleets' effort and / or catches.	The reliability of MEDITS survey indices as tuning data was discussed. It is important to highlight that the XSA assessment would also benefit by the inclusion of time series of CPUE from gillnets and trammel nets to better reconstruct the dynamics of oldest age classes. It was suggested to repeat this assessment next year with the inclusion of Tunisian catch data if available.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 4 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 26	Striped red mullet, *Mullus surmuletus*	Catch & Lfreq catch	2011-2012	LCA, Y/R	High overfishing status	2.1	The objectives of a more sustainable harvest strategy could be achieved by reduction of fishing mortality through fishing activity limitations. Improve the selection pattern of the trawl fishery and enforcement of the application of the closed season will help in protecting the SSB. The lack of enforcement of the existing regulations, specifically the closed season during the last three years, can have a strong effect in this stock.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice
GSA 26	Brush tooth lizard fish, *Saurida undosquamis*	Catch & Lfreq catch	2011-2012	LCA, Y/R	In high overfishing status.	2.2	- Reduce the fishing mortality to $F_{0.1}$ by limitation of trawl fishing activities. - Improvement of the selection pattern of the trawl fishery	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice. SAC recommended that the ecological role and managment advice are further discussed in SCMEE and SCSA

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 25	Picarel, *Spicara smaris*	Catch, Age freq catch, CPUE as tuning index	2005-2012	XSA, Y/R	Sustainable exploitation with intermediate biomass	0.6	Do not increase the fishing mortality.	No specific comments on this stock.	The SCSA endorsed the assessment and advice.	The SAC endorsed the advice
GSA 05	Red shrimp, *Aristeus antennatus*	Catch, trawl surveys & Lfreq catch and commercial CPUE	1992-2012	LCA, XSA, VPA, Y/R	The stock is subject to high overfishing with relative low biomass level.	4.3	To reduce fishing mortality.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 4 times higher than the Fmsy.	The SAC endorsed the advice
GSA 05	Deep-water pink shrimp, *Parapenaeus longirostris*	Catch, trawl surveys & Lfreq catch.	2002-2012	XSA, Y/R and short term forecasts	Low overfishing status with relative intermediate biomass level.	1.2	To reduce fishing mortality.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 20% higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 06	Deep-water pink shrimp, *Parapenaeus longirostris*	Catch, trawl surveys & Lfreq catch	2001-2012	XSA,Y/R	High overfishing. Relative intermediate biomass.	5.5	A reduction of the current fishing mortality is recommended by reducing the fishing effort.	Fluctuations found in this stock are in agreement with those observed in other areas, probably related to environmental variability. The WGSAD endorsed the assessment and recommendations.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 5 times higher than the Fmsy.	The SAC endorsed the advice
GSA 12-16	Deep-water pink shrimp, *Parapenaeus longirostris*	Catch, trawl surveys & Lfreq catch	2007-2012	LCA, Y/R	High overfishing.	1.8	To reduce fishing mortality. The protection of juveniles is also recommended. This objective can be achieved by improving the exploitation pattern of trawlers, and the protection of nursery areas.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 18	Deep-water pink shrimp, *Parapenaeus longirostris*	Trawl surveys, catch & Lfreq catch	survey data: 1996-2007; catch data: 2007-2012	XSA, ALADYM	High overfishing.	1.8	It is necessary to consider a considerable reduction of the fishing mortality to allow the achievement of $F_{0.1}$. The reference point $F_{0.1}$ can be gradually achieved by multiannual management plans that foresee a reduction of fishing mortality through fishing limitations. As observed in 2012, the contribution of each country to the total production of P. longirostris in the GSA18 is the following: Italy 60 %, Albania 38% and Montenegro 2%.	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice
GSA 19	Deep-water pink shrimp, *Parapenaeus longirostris*	Trawl surveys, catch & Lfreq catch	survey data: 1994-2007; catch data: 2006-2012	XSA, ALADYM	High overfishing with relative high biomass level.	2.4	It is necessary to consider a considerable reduction of the fishing mortality in order to achieve the estimated $F_{0.1}$ levels. Objectives of a more sustainable harvest strategy could be achieved with a multiannual plan that foresees a reduction of fishing mortality through fishing limitations and improving selectivity pattern	No specific comments on this stock.	The SCSA endorsed the assessment and proposed to reduce fishing mortality. The SCSA pointed out that Fcurrent is about 2 times higher than the Fmsy.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / F0.1	Management advice	WGSAD comments	SCSA comments	SAC comments
GSA 15-16	Norway lobster, *Nephrops norvegicus*	Trawl surveys, catch & Lfreq catch	survey data: 2002-2012; catch data: 2002-2012	An SCA approach (Millar et al., 2012) using the a4a assessment model was performed on 2002-2012 catch data, tuned with Medits data	The estimated Fcur was below FMSY in 2012 indicating that in this year the stock was exploited sustainably	0.7	Not to increase relevant fleets' effort or catches to maintain fishing mortality below the proposed FMSY level, in order to avoid future loss in stock productivity and landings.	The WGSAD identified uncertainty on the way the model reconstructed recruitment with outliers values in 2011 and 2012. Assessment and recommendations were endorsed.	The SCSA endorsed the assessment and advice.	The SAC endorsed the advice

Table 3 - assessments for Black Sea stocks, as reviewed by SAC

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / Flim	Advice	SGSABS Comments	SCSA Comments	WGBS Comments	SAC comments
GSA 29	Turbot	a) catch-at-age data age-classes 2 to 10+ b) Ukrainian catch-at-length	a) 1950-2012 b)	a) SAM b) LCA	Black Sea stock: Depleted and in overfishing Northwest population (Ukrainian waters): in overfishing, with a slight decreasing trend in SSB	a) 2.1 b) 3.8	A recovery plan is needed. Fishing mortality has to be reduced to allow the biomass to recover.	Two different assessments that cover different part of the Black Sea turbot populations were presented. Models differed in the estimation on IUU catches and in several technicalities. Model results are different, however both models agree that current fishing mortality is not sustainable. Some doubts on the estimate of F in the LCA remain. Further analysis of model differences should be investigated	The SCSA endorsed the advice. The SCSA recommended that an agreement on stock limits for the purpose of stock assessment is done.	The WGBS endorsed the advice. The WGBS recommended that a management plan be prepared following the "proposed minimal structure, criteria and measures for multiannual management plans for turbot fisheries in the Black Sea", especially in relation to the fight against IUU. The WG also agreed on the importance of improving the knowledge on stock limits and proposed that a project proposal be prepared.	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / Flim	Advice	SGSABS Comments	SCSA Comments	WGBS Comments	SAC comments
GSA 29	Sprat	Catch-at-age	1992-2012	ICA	Moderate exploitation rate. Average biomass Sustainably exploited	--	F could be maintained at current levels. Due to fluctuations this should be revised related to next year recruitment	Further information on biological parameters and environmental relationships from analysis of catches is desirable.	The SCSA recommended the advice to be rephrased as do not increase the fishing mortality. The SCSA agreed on the importance of a recruitment estimate to provide advice.	The WGBS endorsed the advice. The WGBS pointed to the large fluctuation of catches of the different small pelagic species between years, which should be investigated.	The SAC endorsed the advice
GSA 29-30	Anchovy *E. encrasicolus maeoticus*		1992-2012	Lampara surveys	Moderately exploited High biomass	0.25	F could be maintained at current levels.	Stock is managed using biomass reference points established based on time series. There are some uncertainties in the estimation of F (as assessment is only based on direct surveys and catches do not have complete coverage and do not include IUU), however biomass levels are high.	The SCSA recommended the advice to be rephrased as do not increase the fishing mortality.	The WGBS endorsed the advice. No further comments	The SAC endorsed the advice

GSA	Species	Data type	Years data	Methodology used	Stock status	Fcurr / Flim	Advice	SGSABS Comments	SCSA Comments	WGBS Comments	SAC comments
GSA 29	Picked dogfish	--	--	--	depleted	--	Recovery plan needed. Some existing recommendations from GFCM apply, but further measures required to recover population	Only information on Ukrainian fisheries is presented. No formal assessment, however very low abundance and presence in catches confirm previous assessments that the stock is depleted	The SCSA endorsed the advice, but suggested that more detailed information on the available data is provided.	The WGBS endorsed the advice. The WGBS recommended that all riparian countries report catches.	The SAC endorsed the advice

- Flim =
  - Turbot model a): Flim10 (SAM - STECF)
  - Turbot model b): F0.1 (LCA)
  - Azov Anchovy : Fpa based on Biomass reference point (not considered fully reliable)

Appendix E

Draft Terms of Reference for selected meetings

A. Sub-regional Group on Stock Assessment in the Black Sea (SGSABS)

1. Revise the status of the main commercial stocks in the Black Sea, focusing on turbot and small pelagic stocks;
2. Review existing data and stock assessment methods for main stocks in the area, with a special focus on IUU estimation and discards required for stock assessment;
3. Review updated information on stocks identification;
4. Provide advice to GFCM and other relevant organizations on stock status and research priorities to improve the knowledge on status of stocks;

For 2014, the following two specific ToRs are proposed:

5. Evaluate biomass-based assessment methods for anchovy in Black Sea;
6. Attempt to define a precautionary reference point for anchovy in Black Sea.

B. Workshop on Black Sea scientific surveys at sea: harmonization of survey methodologies and analysis of data

1. Collect information on spatio-temporal coverage, methods and objectives of existing surveys in the Black Sea;
2. List and prioritize stocks that need a survey to obtain a reliable scientific assessment;
3. List a common set of environmental parameters -relevant from the point of view of fisheries- that can be collected in the different surveys;
4. Identify stocks and areas which could be assessed together in a coordinated survey;
5. List the requisites of the harmonized surveys identified, including:
   - A proposal of vessels, countries and spatiotemporal coverage of the different sections of the survey
   - A proposal of requirements for harmonization to make the results of the different sections comparable
   - A proposal on data sharing (including data structure, hosting of a common database, access rights, etc.)

C. EIFAAC/GFCM/ICES Working Group on Eels (October – December 2014)

1. Assess the latest trends in recruitment, stock and fisheries, including effort, and other anthropogenic factors indicative of the status of the stock, and report to ACOM, EIFAAC and GFCM Scientific Advisory Committee on the state of the international stock and its mortality;
2. Review the life-history traits and mortality factors by ecoregion;
3. Further develop the stock–recruitment relationship and associated reference points, using the latest available data;

4. Explore the standardization of methods for data collection, analysis and assessment, and work with ICES Data Centre to develop a database appropriate to eel along ICES standards (and wider geography);
5. Provide guidance on management measures that can be applied to both EU and non-EU waters;
6. Address the relevant generic ToR from ACOM for Regional and Species Working Groups;
7. WGEEL will report by (details to be determined) for the attention of ACOM, WGRECORDS, SSGEF and FAO, EIFAAC and GFCM.

D. Workshop on Elasmobranchs in the Mediterranean and Black Sea

1. Collate historical datasets and review all the ongoing research programs in the region to update previous 2010 publication;
2. Identify main fisheries and other human activities impacting sharks;
3. Identify sensitive areas for Elasmobranchs;
4. Assess by-catch rates in selected fisheries and other mortality rates induced by human activities;
5. Make proposals to improve i) the monitoring of by-catch; ii) stock assessments and iii) the control of illegal finning;
6. Make proposals for a series of technical measures to mitigate by-catch;
7. Create a community of practice for elasmobranchs in the Mediterranean and Black Sea hosted at the GFCM Secretariat IT platform.

E. 2nd Meeting of the GFCM Working Group on Marine Protected Areas

1. Assess the efficacy, performance and benefits of FRAs;
2. Assess the information regarding time/area closures and other protection ;
3. Follow-up on MPA developments under the MoU between GFCM and UNEP-MAP;
4. Follow up developments related to Vulnerable Marine Ecosystems (VMEs);
5. Evaluate and eventually propose to the SAC new FRA proposals based on new scientific information;
6. Compile Mediterranean best practices showing evidence of the role of time/area closures and MPAs in enhancing fishing stocks health and fishermen's income.

Appendix F

Framework for describing stock status and providing management advice in relation to reference points

INTRODUCTION

1. One of the main purposes of the Scientific Advisory Committee (SAC) of the GFCM is to assess the status of exploited populations of fish and other marine living resources in the Mediterranean and the Black Sea and provide management advice to ensure the sustainable exploitation of these resources. The SAC assessment of stock status and related management advice emanates from dedicated expert groups (e.g. the working groups on stock assessment for small pelagics and demersal species or the recent Subregional group for the assessment of Black Sea stocks), which are revised by the Subcommittee on Stock Assessment (SCSA) and provided to the SAC for endorsement and final advice to the GFCM Commission.

2. Within the expert groups on stock assessment, advice has been provided following terms of reference and recommendations from the SAC, and also in accordance with FAO and international standards and guidelines. In 2012, following several recommendations made on the management of different fisheries in the Mediterranean and Black Sea (e.g. Recommendations GFCM/27/2002/1, GFCM/30/2006/1 and Resolution GFCM 33/2009/1 on the management of certain fisheries exploiting demersal and small pelagic), and on the basis of SAC advice on the need to develop multiannual management plans based on agreed reference points, the GFCM formulated at its thirty-sixth session "Guidelines on a general management framework and presentation of scientific information for multiannual management plans for sustainable fisheries in the GFCM area"1. These guidelines include clear indications on suitable objectives and procedures to implement a management plan, and provide a clear definition of the requirements to provide scientific advice useful for management. The framework is based on the definition of reference points related to key indicators of the status of stocks, such as stock biomass and fishing mortality.

3. In order to further standardize and simplify the definitions of stock status as well as management advice provided by the expert groups, the thirty-seventh session of the Commission agreed to organize a workshop on the definition and use of reference points to provide advice on stock status and management measures. The main conclusions of this workshop were revised by the both working groups on stock assessment and the SCSA and then endorsed by the SAC at its sixteenth session. This document contains a framework on how to describe status of stocks and provide management advice for those stocks for which reference points are adopted by the SAC.

GENERAL CONSIDERATIONS

4. This document provides definitions for stock status and management advice on stocks for which reference points related to indicators of biomass and/or exploitation are available. The GFCM Guidelines on management plans define three categories of reference points to be used to provide advice:

   - target reference point, i.e. a management objective that points to a state of a fishing and/or biological resource which is considered to be desirable. Target reference points should be set sufficiently far away from a limit reference so that the probability that the limits will be exceeded is low. The trajectory toward the target(s) may be represented either on a linear plot with a single target reference point or on a two-dimension plot using two target reference points or on a multidimensional plot when more than two target reference points are used.

[1] These guidelines are referred to as Resolution OTH-GFCM/36/2012/1 in the Compendium of GFCM decisions.

- threshold reference point, i.e. a precautionary reference point expressed either as fishing mortality rate or a level of biomass or another agreed indicator. They are between the limit and target reference points and used to reduce the probability that the limit reference point will be exceeded. They serve as a red flag and may trigger particular management actions designed to reduce fishing pressure and mortality. After this point pre-negotiated management measures to reverse the situation should be initiated.
- limit reference point, i.e. a conservation reference point expressed either as a fishing mortality rate or level of biomass or another agreed indicator that indicates to a state of a fishery and/or a resource which is considered to be undesirable and which management actions should avoid with high probability. After this point pre-negotiated management measures to reverse the situation should be initiated.

5. In addition to these definitions, the following considerations are proposed in this document:

In relation to reference points and stock status:

- Suitable indicators for biomass can be either **Total Biomass** or **Spawning Stock Biomass**, while suitable indicators for exploitation can be either **Fishing mortality** or **Exploitation rate** (ratio between fishing mortality and total mortality). In all cases, reference points should be defined in relation to the indicator used. For simplification, in this document the acronym "**B"** refers to any biomass indicator, while the acronym "**F"** refers to any indicator of exploitation.
- Following the recommendations from the SAC, the advice should be based, if possible, on both indicators of biomass and exploitation, and for each indicator ideally target, threshold and limit (e.g. F_{tgt}, F_{thr}, F_{lim}) reference points should be defined. When only one indicator is available, there should be a clear advice to explore the possibility of having indicators for both biomass and exploitation.
- In general terms, a suggested target reference point for biomass and exploitation is that value of the indicator at which maximum sustainable yield (MSY) is obtained from the fishery, in accordance with the 1995 UN Fish Stocks Agreement (UNFSA), while limit and threshold reference points should be established based on precautionary principles.
- When only one reference point is available for a given indicator, the reference point is referred to as unique reference point (B_{unique} or F_{unique}), and it should refer to MSY.
- When the exploitation rate is used as an indicator, and in absence of a stock-specific reference point, F_{unique} for small pelagics can be defined as E=0.4 following the proposal of Patterson (1999).
- When fishing mortality is used as an indicator, $F_{0.1}$ (defined as the fishing mortality rate at which the slope of the yield-per-recruit curve is only one-tenth the slope of the curve at its origin) can be used as a proxy for F_{MSY}. If possible $F_{0.1}$ should be complemented with an additional estimate of F_{lim} (e.g. from an independent B_{lim} estimate) and F_{thr} should be defined in relation to F_{lim}. In that case F_{MSY} will be considered as a target. Alternatively, if only $F_{0.1}$ is available, it will be considered as F_{unique}.
- For small pelagic fish, a threshold and limit reference point for biomass, based on reproductive capacity should be established to maximize probability of obtaining good recruitments. In the absence of precise stock recruitment relationships that allow estimating it, B_{lim} is proposed to be defined as the lowest biomass from which a recovery has been confirmed (B_{loss}), estimated from an analysis of time series of biomass estimates. Time series should be sufficiently long and only if the analysis provides consistent perspective in the historical and the recent part of the time series this reference points is to be considered. Whenever similar minima that meet the required criteria (recovery) exist in the time series the upper value should be chosen as a precautionary approach. B_{thr} is defined as a point at which the probability to be below B_{lim} is lower than 5%. In absence of precise estimates of the

distribution of the biomass estimate, a lognormal distribution of B_{lim} should be assumed, with a coefficient of variation of 40%. This approximately results in $B_{thr} = 2 * B_{lim}$

In relation to management advice:

- Management advice is provided based on both the assessment of the status of the stock and the reference points used for this assessment. If the assessment is based on the full range of indicators (i.e. F and B) and reference points (i.e. target, threshold and limit), then a more precise advice can be provided. If on the other hand the assessment is based on a reduced number of indicators or reference points, then a more precautionary advice is provided due to limited information which could result in increasing risk for the sustainability of the fishery.
- When a reduction of fishing mortality is advised, it should be implemented by means of a multiannual management plan, done in accordance with the GFCM guidelines for management plans. The amount of reduction in fishing mortality resulting from the implementation of the plan should be proportional to the distance between the target fishing mortality and the current fishing mortality. Management advice emanating from the expert groups should therefore include the ratio between current estimate of the indicator of F and either its target or the unique reference point for F (i.e. F_{curr} / F_{target} or F_{curr} / F_{unique})
- When the status of stock is outside biological limits (as indicated by one or both indicators used), a recovery plan should be established. Minimum objectives for recovery plan should ensure that human pressure (direct and indirect) on the population is reduced to minimum and a close monitoring of population condition is established.

STOCK STATUS AND MANAGEMENT ADVICE IN RELATION TO REFERENCE POINTS

6. Stock status and proposed management advice for different combinations of indicators (only F, only B or both) and reference points (a unique reference point, precautionary – limit and threshold – reference points, or a full set of target, threshold or limit reference points) available for a given stock are provided in Tables 1 – 15. The diagram included in Figure 1 identifies the appropriate table for the different combinations of indicators and reference points available.

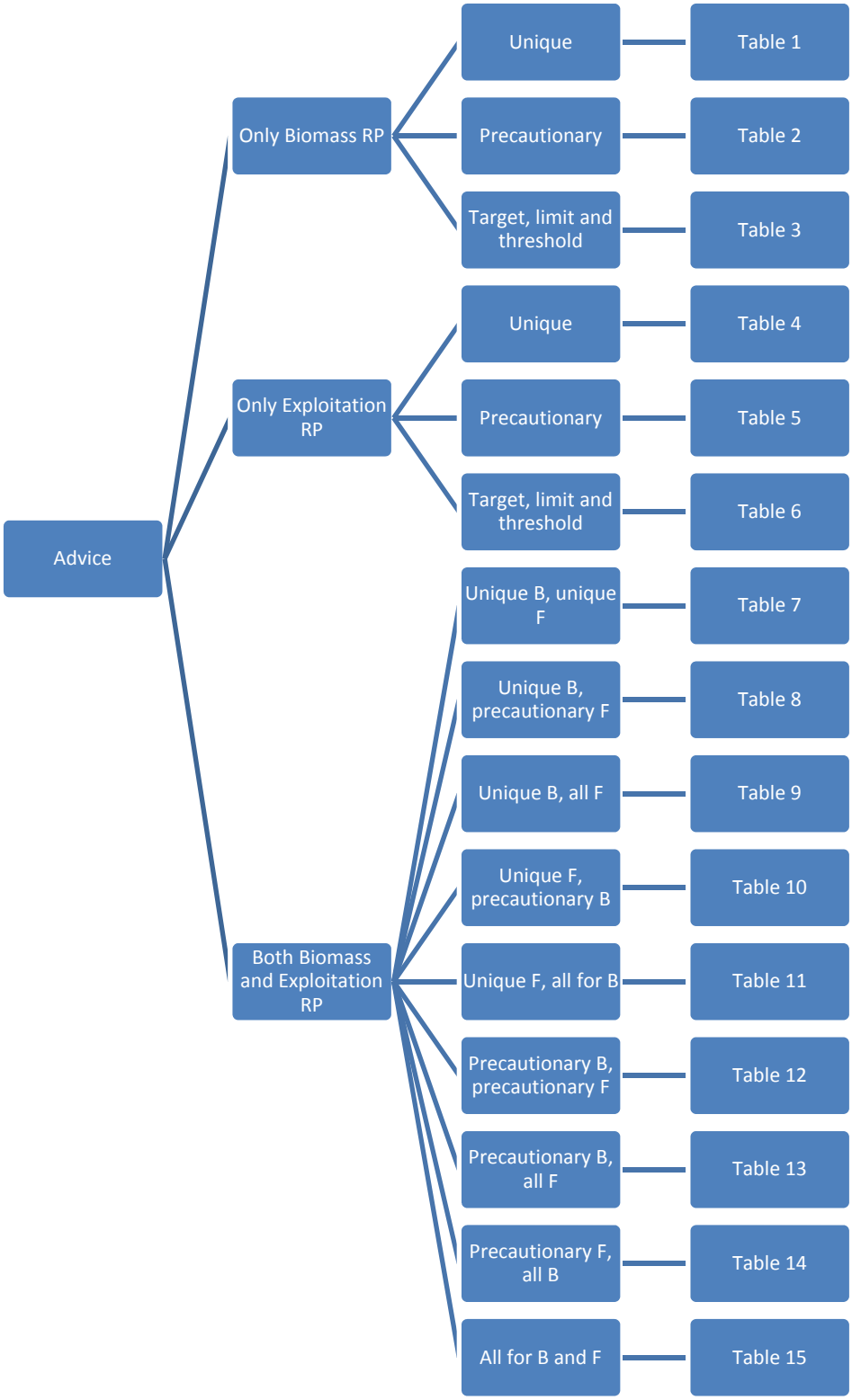

Figure 1: Diagram for the different stock assessment and management advice situations based on the indicators used and the reference points adopted. For each stock, the diagram indicates the adequate table to provide an assessment of stock status and its associated management advice.

Table 1: Advice for stocks that only have a single reference point for biomass

Current assessment	Status of stock	Advice
$B > B_{unique}$	No signals of overexploitation	Do not increase fishing mortality
$B < B_{unique}$	Overexploited	Reduce fishing mortality

Table 2: Advice for stocks that have precautionary reference points only for biomass (threshold and limit)

Current assessment	Status of stock	Advice
$B > B_{thr}$	No signals of overexploitation	Do not increase fishing mortality
$B_{thr} > B > B_{lim}$	Low biomass	Reduce fishing mortality
$B < B_{lim}$	Depleted / Collapsed	Implement a recovery plan

Table 3: Advice for stocks that have all reference points (target, threshold and limit) for biomass only

Current assessment	Status of stock	Advice
$B > B_{trg}$	Sustainably exploited	Do not increase fishing mortality
$B_{trg} > B > B_{thr}$	Biomass below target	Reduce fishing mortality
$B_{thr} > B > B_{lim}$	Low biomass	Reduce fishing mortality
$B < B_{lim}$	Depleted / Collapsed	Implement a recovery plan

Table 4: Advice for stocks that only have a single reference points for exploitation

Current assessment	Status of stock	Advice
$F < F_{unique}$	Sustainable exploitation	Do not increase fishing mortality
$F > F_{unique}$	In overexploitation	Reduce fishing mortality

Table 5: Advice for stocks that only have precautionary reference points for exploitation (threshold and limit)

Current assessment	Status of stock	Advice
$F < F_{thr}$	Sustainable exploitation	Do not increase fishing mortality
$F_{thr} < F < F_{lim}$	In overexploitation	Reduce fishing mortality
$F > F_{lim}$	In severe overexploitation	Immediate action to ensure a reduction in fishing mortality *

Table 6: Advice for stocks that have all reference points (target, threshold and limit) for exploitation only

Current assessment	Status of stock	Advice
$F < F_{trg}$	Sustainable exploitation	Do not increase fishing mortality
$F_{trg} < F < F_{thr}$	In low overexploitation	Reduce fishing mortality
$F_{thr} < F < F_{lim}$	In overexploitation	Reduce fishing mortality
$F > F_{lim}$	In severe overexploitation	Immediate action to ensure a reduction in fishing mortality *

*Monitoring that the level of fishing mortality actually decreases should be ensured.

Table 7: Advice for stocks with a unique reference point for both biomass and exploitation

Current assessment	Status of stock	Advice
$B > B_{unique}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{unique}$		
$B > B_{unique}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$F > F_{unique}$		
$B < B_{unique}$	Overexploited with a low fishing mortality or ecologically unbalanced but with a low fishing mortality**	Reduce fishing mortality and/or implement a recovery plan
$F < F_{unique}$		
$B < B_{unique}$	Overexploited and in overexploitation	Immediate action to ensure a reduction in fishing mortality ***
$F > F_{unique}$		

- *Fishing opportunities should be evaluated taking into account ecosystem and socio-economic considerations and future risks for the target stock.
- ** Ecologically unbalanced refers to situations in which the low biomass is not believed to be caused by continuous human pressure, but else to changes in the ecosystem that prevents higher biomass.
- ***Monitoring that the level of fishing mortality actually decreases should be ensured.

Table 8: Advice for stocks with precautionary (limit and threshold) reference points for exploitation and unique reference points for biomass

Current assessment	Status of stock	Advice
$B > B_{unique}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{thr}$		
$B > B_{unique}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$F_{lim} > F > F_{thr}$		
$B > B_{unique}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$F > F_{lim}$		
$B < B_{unique}$	Overexploited with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Reduce fishing mortality and/or implement a recovery plan
$F < F_{thr}$		
$B < B_{unique}$	Overexploited and in overexploitation	Reduce fishing mortality and/or implement a recovery plan
$F_{lim} > F > F_{thr}$		
$B < B_{unique}$	Overexploited and in severe overexploitation	Immediate action to ensure a reduction in fishing mortality ***
$F > F_{lim}$		

- *Fishing opportunities should be evaluated taking into account ecosystem and socio-economic considerations and future risks for the target stock.
- ** Ecologically unbalanced refers to situations in which the low biomass is not believed to be caused by continuous human pressure, but else to changes in the ecosystem that prevents higher biomass.
- ***Monitoring that the level of fishing mortality actually decreases should be ensured.

Table 9: Advice for stocks with limit, threshold and target reference points for exploitation and unique reference points for biomass

Current assessment	Status of stock	Advice
$B > B_{unique}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{tr}$		
$B > B_{unique}$	Biomass above reference point and in low overexploitation	Reduce fishing mortality
$F_{thr} > F > F_{tr}$		
$B > B_{unique}$	Biomass above reference point and in high overexploitation	Reduce fishing mortality
$F_{lim} > F > F_{thr}$		
$B > B_{unique}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$F > F_{lim}$		
$B < B_{unique}$	Overexploited with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Reduce fishing mortality and/or implement a recovery plan
$F < F_{tr}$		
$B < B_{unique}$	Overexploited and in low overexploitation	Reduce fishing mortality and/or implement a recovery plan
$F_{thr} > F > F_{tr}$		
$B < B_{unique}$	Overexploited and in overexploitation	Reduce fishing mortality and/or implement a recovery plan
$F_{lim} > F > F_{thr}$		
$B < B_{unique}$	Overexploited and in severe overexploitation	Immediate action to ensure a reduction in fishing mortality ***
$F > F_{lim}$ or		

- *Fishing opportunities should be evaluated taking into account ecosystem and socio-economic considerations and future risks for the target stock.
- ** Ecologically unbalanced refers to situations in which the low biomass is not believed to be caused by continuous human pressure, but else to changes in the ecosystem that prevents higher biomass.
- ***Monitoring that the level of fishing mortality actually decreases should be ensured.

Table 10: Advice for stocks with precautionary reference points for biomass (B_{thr} and B_{lim}) and unique reference points for exploitation

Current assessment	Status of stock	Advice
$B > B_{thr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{unique}$		
$B > B_{thr}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$F > F_{unique}$		
$B_{lim} < B < B_{thr}$	Overexploited with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Reduce fishing mortality or implement a recovery plan
$F < F_{unique}$		
$B < B_{lim}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$F < F_{unique}$		
$B_{lim} < B < B_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality immediately
$F > F_{unique}$		
$B < B_{lim}$	Depleted and in overexploitation	Implement recovery plan
$F > F_{unique}$		

- *Fishing opportunities should be evaluated taking into account ecosystem and socio-economic considerations and future risks for the target stock.
- ** Ecologically unbalanced refers to situations in which the low biomass is not believed to be caused by continuous human pressure, but else to changes in the ecosystem that prevents higher biomass.
- ***Monitoring that the level of fishing mortality actually decreases should be ensured.

Table 11: Advice for stocks with limit, threshold and target reference points for biomass and unique reference points for exploitation

Current assessment	Status of stock	Advice
$B > B_{tr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{unique}$		
$B > B_{tr}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$F > F_{unique}$		
$B_{thr} < B < B_{tr}$	Increased risk of being overexploited	Do not increase fishing mortality and close monitoring of the stock status
$F < F_{unique}$		
$B_{thr} < B < B_{tr}$	Increased risk of being overexploited and in overexploitation	Reduce fishing mortality
$F > F_{unique}$		
$B_{lim} < B < B_{thr}$	Overexploited with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Reduce fishing mortality or Implement a recovery plan
$F < F_{unique}$		
$B < B_{lim}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$F < F_{unique}$		
$B_{lim} < B < B_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality immediately
$F > F_{unique}$		
$B < B_{lim}$	Depleted and in overexploitation	Implement recovery plan
$F > F_{unique}$		

Table 12: Advice for stocks with precautionary (limit and threshold) reference points for biomass and exploitation

Current assessment	Status of stock	Advice
$B > B_{thr}$ $F < F_{thr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$B > B_{thr}$ $F_{lim} > F > F_{thr}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$B > B_{thr}$ $F > F_{lim}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$B_{lim} < B < B_{thr}$ $F < F_{thr}$	Overexploited or ecologically unbalanced	Reduce fishing mortality or Implement a recovery plan
$B_{lim} < B < B_{thr}$ $F_{lim} > F > F_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality
$B_{lim} < B < B_{thr}$ $F > F_{lim}$	Overexploited and in severe Overexploitation	Reduce fishing mortality immediately
$B < B_{lim}$ $F < F_{thr}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$B < B_{lim}$ $F_{lim} > F > F_{thr}$	Depleted and in overexploitation	Close the fishery and implement a recovery plan
$B < B_{lim}$ $F > F_{lim}$	Depleted with immediate risk of collapse	Close the fishery and implement a recovery plan

Table 13: Advice for stocks with precautionary (limit and threshold) reference points for biomass and limit, threshold and target reference points for exploitation

Current assessment	Status of stock	Advice
$B > B_{thr}$ $F < F_{tr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$B > B_{thr}$ $F_{thr} > F > F_{tr}$	Increased risk of overexploitation	Do not increase fishing mortality and close monitoring of the stock status
$B > B_{thr}$ $F_{lim} > F > F_{thr}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$B > B_{thr}$ $F > F_{lim}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$B_{lim} < B < B_{thr}$ $F < F_{tr}$	Overexploited or ecologically unbalanced	Reduce fishing mortality or Implement a recovery plan
$B_{lim} < B < B_{thr}$ $F_{thr} > F > F_{tr}$	Overexploited and in risk of being in overexploitation	Reduce fishing mortality
$B_{lim} < B < B_{thr}$ $F_{lim} > F > F_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality
$B_{lim} < B < B_{thr}$ $F > F_{lim}$	Overexploited and in severe overexploitation	Reduce fishing mortality immediately
$B < B_{lim}$ $F < F_{tr}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$B < B_{lim}$ $F_{thr} > F > F_{tr}$	Depleted with unsustainable exploitation or ecologically unbalanced with unsustainable exploitation **	Immediate reduction of fishing mortality and implement a recovery plan
$B < B_{lim}$ $F_{lim} > F > F_{thr}$	Depleted and in overexploitation	Close the fishery and implement a recovery plan
$B < B_{lim}$ $F > F_{lim}$	Depleted with immediate risk of collapse	Close the fishery and implement a recovery plan

Table 14: Advice for stocks with precautionary (limit and threshold) reference points for exploitation and limit, threshold and target reference points for biomass

Current assessment	Status of stock	Advice
$B > B_{tr}$ $F < F_{thr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$B > B_{tr}$ $F_{lim} > F > F_{thr}$	Biomass above reference point and in overexploitation	Reduce fishing mortality
$B > B_{tr}$ $F > F_{lim}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$B_{thr} < B < B_{tr}$ $F < F_{thr}$	Increased risk of being overexploited	Do not increase fishing mortality and close monitoring of the stock status
$B_{lim} < B < B_{thr}$ $F < F_{thr}$	Overexploited or Ecologically unbalanced	Reduce fishing mortality or Implement a recovery plan
$B_{lim} < B < B_{thr}$ $F_{lim} > F > F_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality
$B_{lim} < B < B_{thr}$ $F > F_{lim}$	Overexploited and in severe Overexploitation	Reduce fishing mortality immediately
$B < B_{lim}$ $F < F_{thr}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$B < B_{lim}$ $F_{lim} > F > F_{thr}$	Depleted and in overexploitation	Close the fishery and implement a recovery plan
$B < B_{lim}$ $F > F_{lim}$	Depleted with immediate risk of collapse	Close the fishery and implement a recovery plan

Table 15: Advice for stocks with limit, threshold and target accepted reference points for both biomass and exploitation

Current assessment	Status of stock	Advice
$B > B_{tr}$	Sustainably exploited	Evaluate potential fishing opportunities*
$F < F_{tr}$		
$B > B_{tr}$	Increased risk of overexploitation	Do not increase fishing mortality and close monitoring of the stock status
$F_{thr} > F > F_{tr}$		
$B > B_{tr}$	Biomass above reference point and in Overexploitation	Reduce fishing mortality
$F_{lim} > F > F_{thr}$		
$B > B_{tr}$	Biomass above reference point and in severe overexploitation	Reduce fishing mortality immediately
$F > F_{lim}$		
$B_{thr} < B < B_{tr}$	Increased risk of being overexploited	Do not increase fishing mortality and close monitoring of the stock status
$F < F_{tr}$		
$B_{lim} < B < B_{thr}$	Overexploited or ecologically unbalanced	Reduce fishing mortality or Implement a recovery plan
$F < F_{tr}$		
$B_{thr} < B < B_{tr}$	Increased risk of being both overexploited and in overexploitation	Reduce fishing mortality
$F_{thr} > F > F_{tr}$		
$B_{lim} < B < B_{thr}$	Overexploited and in risk of being in overexploitation	Reduce fishing mortality
$F_{thr} > F > F_{tr}$		
$B_{lim} < B < B_{thr}$	Overexploited and in overexploitation	Reduce fishing mortality
$F_{lim} > F > F_{thr}$		
$B_{lim} < B < B_{thr}$	Overexploited and in severe overexploitation	Reduce fishing mortality immediately
$F > F_{lim}$		
$B < B_{lim}$	Depleted with a low fishing mortality or ecologically unbalanced with a low fishing mortality**	Immediate reduction of fishing mortality and implement a recovery plan
$F < F_{tr}$		
$B < B_{lim}$	Depleted with unsustainable exploitation or ecologically unbalanced with unsustainable exploitation **	Immediate reduction of fishing mortality and implement a recovery plan
$F_{thr} > F > F_{tr}$		
$B < B_{lim}$	Depleted and in overexploitation	Close the fishery and implement a recovery plan
$F_{lim} > F > F_{thr}$		
$B < B_{lim}$	Depleted with immediate risk of collapse	Close the fishery and implement a recovery plan
$F > F_{lim}$		

Appendix G

Elements for the management of selected case studies in the Mediterranean and Black Sea

Elements for the management of small pelagic fisheries in the Alboran Sea

1. Scope of this proposal

A definition of the area covered by this proposal (the *Alborán Sea*) as well as the fisheries included in this proposal (*small pelagic fisheries in the Alborán sea*) and species concerned (*target* and *associated* species) will be needed.

A definition of the stock units and limits in the area is not currently clear; therefore it will not become part of the scope, but else become a key research priority within this proposal.

2. Objectives

Following the GFCM guidelines on management plans (GFCM/36/2012), management plans should consider inter alia the following objectives:

- To prevent overfishing of small pelagics in the Alborán Sea area with a view to ensure the sustainable economic viability of fisheries;
- To maintain the stock of sardine in the area at levels that can produce the maximum sustainable yield and to facilitate the restoration of anchovy stocks to historical levels;
- To guarantee a low risk of sardine and anchovy stocks in the area falling outside safe biological limits;
- To ensure protection of biodiversity in the Alborán Sea to avoid undermining ecosystems' structure and functioning;

Operational objectives

- To maintain the biomass of sardine and anchovy above agreed precautionary biological reference points ($B > B_{pa}$ and $F<F_{pa}$)
- To minimize the risk that small pelagic fisheries in Alboran Sea put the population of other accompanying and non-target species at risk of falling below its safe biological limits (if exist) or in risk of collapse.
- To minimize bycatch of endangered or protected species
- To minimize any potential effect of small pelagic fisheries in Alboran Sea in the Alboran Sea habitat

3. Indicators and reference points

Both biomass and fishing mortality indicators should be used in order to incorporate natural fluctuations and minimize risk of collapse. Current stock assessment methods should be improved following the recommendations of SAC and reference points should be based on these models, once validated. Also, reference points should take into account the role of small pelagics in the trophic web. For biomass, the following reference points should be attempted:

- B_{lim}: a biomass level which is considered undesirable and which management actions should avoid with high probability.
- B_{pa}: a threshold level of biomass established to reduce the probability that the limit reference point will be exceeded.

The possibility to use generic reference points (e.g. $E < 0.4$ or $F_{0.1}$ for fishing mortality) while specific points of reference are designed for the stock should be evaluated.

Pending the availability of stock biomass and fishing mortality estimates and the identification of appropriate reference points, the following indicators and reference points could be used.

Indicator of stock abundance*	Reference point
Standardized catch-per-unit-of-effort (CPUE) data from the fishery	- Historical level - Trend (e.g. increase by x% per year)
As secondary indicator: Catch or trade data without information on effort	- Historical level - Trend (e.g. increase by x% per year)
Indicator of stock status	**Reference point**
Mean body size in the catch (Lt)	Lt > Lm; Lm = minimum conservation size.
Indicator of fishing pressure	**Reference point**
Fleet size	- Historical level - Trend (e.g. decrease by x% per year)
Fishing effort	- Historical level - Trend (e.g. decrease by x% per year)

The following indicator could be used for non-target species, and some reference points could be established:

- Landings of main non-target species defined in each fishery

The following indicators could be used for ecosystem status, and some reference points could be established:

- Presence and volume of catches of alien species
- Composition of the catch
- Mean length of the catches
- Any information on cetaceans and sea birds abundance and distribution

4. Fisheries management measures

In order to reach the objectives of this proposal, and without prejudice to stricter measures adopted nationally, the following tools can be used and the following potential measures are provided as options:

Management tools	Potential measures
Spatial restrictions	- (low impact on the plan) Seagrass beds, - (low impact on the plan) Coralligenous habitats and mäerl beds. - Nursery areas - Minimum distance to the coast - Minimum bottom depth - Protected areas
Gear restriction	Specific for the different operational units. Minimum mesh size and the way to be measures. - Purse seiners: o Minimum mesh size (potentially easily to be harmonized) o Maximum dimensions (length and depth) - Trawl nets: o Minimum mesh size o Cod-end o Dimensions - Accessories: characteristics of the light,
Minimum landing size	Minimum size – current measures are similar. To be checked on a technical forum. Use length weight conversions from each area <u>Minimal proposal:</u> *E. encrasicolus*: 9 cm. *S. pilchardus*: 11 cm *Trachurus* spp: 15 cm to be checked against ind./kg

Management tools	Potential measures
	Scomber spp: 18 cm to be checked against ind./kg *Sardinella spp*: 15 cm to be evaluated Mininum sizes should be converted to ind./kg
Limits to fishing capacity	Pending the availability of sound scientific evidence indicating the existence of unutilized fishing opportunities, Countries shall not increase the number of vessels authorized to operate in this fishery. The allowance of changes in fishing capacity for existing vessels should be revised at national level.
MCS measures	Vessel information submitted to GFCM Regional Fleet Register. Record of fishing vessels larger than 15 metres authorized to fish in the GFCM Area. Satellite-based VMS required for vessels >15 meters authorized to fish in the GFCM area. The submission of information from smaller vessels in this fishery could be evaluated Required submission of data on vessels engaged in IUU fishing (IUU Vessel List). Required logbook for vessels exceeding 15 meters authorized to fish in GFCM area. Logbook shall register quantities of each species caught and kept on board, above 50kg in live weight. Adoption of Port State measures to prevent, deter and eliminate IUU fishing.

5. Decision rules

Management plans will include decision rules with pre-agreed measures to be adopted under different conditions of the stock and other indicators such as fisheries activity, revenues, etc. in relation to agreed reference points. The specific technical measures to be adopted under each scenario for each indicator (stock status, economic indicator) are to be defined in appropriate national and sub-regional working groups.

6. Scientific monitoring

The Scientific Advisory Committee (SAC) of the GFCM should be responsible for advice on status of stocks and economic indicators of the fishery.

Adequate annual scientific monitoring of fisheries and exploited stocks at national level should be ensured so that SAC is in a position to provide scientific advice.

7. Research priorities

1. Definition of stock structure (stock identification, existence of metapopulations, stock boundaries, migration flows) with a view of determining if fisheries are sharing the same stock in the sub-region and the interconnectivity between areas.
2. Research towards improvement of the assessment of stock status, including:
    a. Improve biological information of target species (sardine and anchovy)
    b. Identify main accessory species for the fishery object of the plan in relation to the volume of catches and obtain a minimum of information on them (e.g. catches)
    c. Improve the assessment model used, including:
        i. Identification of the most adequate assessment model given the information foreseen
        ii. Definition of minimum information on biological parameters, catches and effort required to perform an assessment of the status of the stock using the preferred model
        iii. Investigation of the possibility to have a minimum set of data harmonized between countries in the region to compile a common dataset and apply a common assessment model
        iv. Recover data on direct surveys in the area, continue with the national survey that combined cover all the area, make the indicators compatible (single coordinated survey, calibrated surveys, etc.)
    d. Improve the knowledge of natural fluctuations of small pelagics in the Alboran Sea, including range of fluctuations, periodicity and causes.

3. Socioeconomic impacts of the implementation of management measures and plans, including:
    a. Socioeconomic impacts of the plan: short and long term potential negative effects, medium and long term potential positive impacts.
    b. Improvement of value chain, and conditions of the people working in the fisheries (security on board, etc.)
    c. Requirements for the preparation of the plan: technical meetings, meetings with stakeholders, studies needed (socioeconomic indicators)
    d. Requirements for the implementation of the plan, including;
        i. Analysis of the expected impact of the implementation of the measures proposed
        ii. Capacity building to implement the management measures proposed (control, etc.)
        iii. Requirements to implement research lines

8. Fisheries Monitoring, Control and Surveillance

To ensure compliance with the measures to be adopted in the management plan, the following actions are to be implemented:

- Concerned Parties should make efforts to implement GFCM recommendations related to MCS, including those listed under the section on management measures.
- Concerned Parties are responsible for implementing the adopted management measures in their jurisdictional waters and by vessels flying their flag beyond national jurisdiction.

- Development of a specific mechanism for MCS in areas beyond national jurisdictions covered by the management plan.

9. Review of the management plan

The contents of the management plans should be periodically reviewed in order to accommodate changes in the fisheries system. The review should be carried out as follows:

To be done by SAC:

- Status of stocks assessed yearly.
- Status of the fishery (e.g. economic indicators)
- Reference points should be proposed by the SAC once indicators are available.
- Once reference points are establish, the SAC should propose a review term for them.

To be done by Concerned Parties:

Management action taken based on stock status and fishery conditions (socioeconomic indicators) and according to the decision rules and management tools described.

10. Compliance with the plan

Management actions, modifications of the plan and compliance with the plan should be reported to the GFCM within the National Report submitted yearly to the GFCM. The Compliance Committee of the GFCM shall review this report and take necessary actions.

Elements for the management of bottom trawling fisheries for deep-water rose shrimp (*P. longirostris*) and associated species in the Strait of Sicily (GSA12 – 16)

1. Scope of the management plan

Need to define the species, the fleets and the areas that will be covered by the management plan.

2. Objectives

Following the GFCM guidelines on management plans (GFCM/36/2012), the regional plan should consider inter alia the following options:

To counteract and/or to prevent overfishing with a view to ensure the sustainable economic viability of fisheries;

To maintain and/or to restore, to the extent possible, the stock size of harvested species at least at levels which can produce the maximum sustainable yield;

To guarantee a low risk of stocks falling outside safe biological limits;

To ensure protection of biodiversity to avoid undermining ecosystems' structure and functioning.

Operational objectives

The plan should define, for each agreed objective, specific operational objectives that have practical interpretation, can clearly describe expected outcomes and can be measured with indicators. For example, in relation to the objective of "guarantee a low risk of stocks falling outside safe biological limits" the following operational objective could be applied:

- To maintain the biomass of target species above agreed precautionary biological reference points ($B > B_{pa}$ and $F<F_{0.1}$).
- To maintain indicators of stock status and fishing pressure (according to the Table on alternative indicators and reference points) at levels which ensure the sustainability of the fishery.

In relation to the objective of "ensure protection of biodiversity to avoid undermining ecosystem's structure and functioning", the following operational objective could be applied:

- To decrease discards of commercial and non-commercial species by (x)% in (y) years.
- To decrease the incidental catch of protected and endangered species.
- To prevent significant adverse impacts of bottom trawling fisheries on sensitive habitats by increasing the protection of areas where these habitats are known or are likely to occur.

3. Indicators and reference points

In situations where stock biomass is used as indicator of status of the stock, the following reference points could be used:

B_{lim}: a biomass level which is considered undesirable and which management actions should avoid with high probability.

B_{pa}: a threshold level of biomass established to reduce the probability that the limit reference point will be exceeded.

Bmsy: as a possible target reference point.

In situations where fishing mortality is used as an indicator of fishing pressure, the following reference point could be used:

$F_{0.1}$: The fishing mortality rate at which the slope of the yield-per-recruit curve is only one-tenth the slope of the curve at its origin.

Pending the availability of stock biomass and fishing mortality estimates and the identification of appropriate reference points, the following indicators and reference points could be used.

Indicator of stock abundance*	**Reference point**
Standardized index from scientific surveys (3)	- Historical level - Trend (e.g. increase by x% per year)
Standardized catch-per-unit-of-effort (CPUE) data from the fishery (2), assuming fishing pattern remained constant.	- Historical level - Trend (e.g. increase by x% per year)
Unstandardized CPUE data from the fishery (1), assuming fishing pattern remained constant.	- Historical level - Trend (e.g. increase by x% per year)
Indicator of stock status	**Reference point**
Mean body size in the catch (Lt), assuming that selectivity pattern is kept constant.	Lt > Lm; Lm = minimum conservation size.
Indicator of fishing pressure	**Reference point**
Fleet size (by operational units as defined by GFCM Task 1)	- Historical level - Trend (e.g. decrease by x% per year)
Fishing effort (accounting for capacity and activity, including vessel tonnage, power and days at sea)	- Optimal Effort to reach MSY - Historical level - Trend (e.g. decrease by x% per year)

*In brackets the relative level of reliability of the indicators of stock abundance (1 lower level, 3 higher level).

Concerning the objective of ensure protection of biodiversity to avoid undermining ecosystem's structure and functioning, the following indicators and references points could be used:

Indicator	**Reference point**
Discard rate (%)	- Historical - Trend (% over time)
Bycatch of protected/endangered species	- Historical - Trend (% over time)
Area of sensitive habitats under protection	- Historical - Trend (% over time)

4. Fisheries management measures

In order to reach the objectives of the regional management plan, and without prejudice to stricter measures adopted nationally, countries should consider the adoption of the following minimum conservation measures for the bottom trawling fisheries targeting deep water rose shrimp.

Rank (effectiveness)	Management measures	Examples
High	Spatial restrictions	Prohibited fishing above coralligenous habitats and mäerl beds. Protection of nursery areas.
Low	Temporal restrictions	Adopting common closed seasons by GSAs.
High	Gear restrictions	Minimum 40 mm square mesh or a diamond mesh size of at least 50 mm in the codend (according to Recommendation GFCM/ /33/2009/2). Improve the selectivity of the gear to reduce the capture of immature individuals and bycatch (e.g. through the implementation of Bycatch Reduction Devices)
High	Minimum size	Minimum conservation sizes should be defined and harmonized in the sub-region, based on the best scientific knowledge about maturity. Obs: Minimum conservation sizes should be used as reference points on the monitoring of the efficiency of the management plan.
High	Habitat protection	Establishment of provisions to minimize the encounter of bottom trawlers with unmapped sensitive habitats (e.g. through "move-on" rules).
Medium	Participatory	Consider mechanisms to control access in order to adapt the

Rank (effectiveness)	Management measures	Examples
	restrictions	fishing effort and fishing capacity according to the status of the resource.

5. Decision rules

Management plans will include decision rules with pre-agreed measures to be adopted under different conditions of the stock in relation to agreed biological reference points. The specific technical measures to be adopted under each stock status scenarios are to be defined in appropriate national and sub-regional working groups, taking into account the socio-economic impacts of the proposed measures.

6. Scientific monitoring

The Scientific Advisory Committee (SAC) of the GFCM should be responsible for advice on status of stocks and economic indicators of fisheries.

Adequate and periodic scientific monitoring of fisheries (including socioeconomic indicators) and exploited stocks at national level should be ensured so that SAC is in a position to provide scientific advice.

7. Research priorities to improve the assessment and management of fisheries

- Assessment of socioeconomic impacts of the management plan
(the assessment of socioeconomic impact of the proposed management measures should be carried out prior to and during the implementation of the management plan)

- Research on the valorisation of fish products.
- Research to improve the selectivity of fishing gear.
- Assessment of bycatch and discards.
- Improvement of the knowledge on stock boundaries
- Advance in the application of ecosystem/multispecies approaches.
- Improvement of the assessment of the status of associated species taking into account the multi-species characteristics of the fisheries.
- Advance in the application of bioeconomic analysis of fisheries.

8. Fisheries Monitoring, Control and Surveillance

To ensure compliance with the measures to be adopted in the management plan, the following actions are to be implemented:

- Concerned Parties should make efforts to implement GFCM recommendations related to MCS, including those listed below:

- Vessel information submitted to GFCM Regional Fleet Register.
- Record of fishing vessels larger than 15 metres authorized to fish in the GFCM Area.
- Satellite-based VMS required for vessels >15 meters authorized to fish in the GFCM area.
- Required submission of data on vessels engaged in IUU fishing (IUU Vessel List).
- Required logbook for vessels exceeding 15 meters authorized to fish in GFCM area. Logbook shall register quantities of each species caught and kept on board, above 50 kg in live weight.
- Adoption of Port State measures to prevent, deter and eliminate IUU fishing.

- Strengthen national capacities for fisheries monitoring, control and surveillance.
- Concerned Parties are responsible for implementing the adopted management measures in their jurisdictional waters and by vessels flying their flag beyond national jurisdiction.
- Development of a specific mechanism for MCS in areas beyond national jurisdictions covered by the management plan.
- Improve the collection of fisheries statistical data, including social and economic data.

9. Review of the management plan

The contents of the management plans should be periodically reviewed in order to accommodate changes in the fisheries system. The review should be carried out as follows:

<u>To be done by SAC</u>:

- Status of stocks assessed yearly.
- Status of the fishery (e.g., economic indicators)
- Reference points should be proposed by the SAC once indicators are available.
- Once reference points are establish, the SAC should propose a review term for them.

<u>To be done by Concerned Parties</u>:

Management action taken based on stock status and fishery conditions (socioeconomic indicators) and according to the decision rules and management tools described.

Elements for the management of bottom trawling fisheries for deep-water red shrimps (*A. foliacea* and *A. antennatus*) in the Central-Eastern Mediterranean (GSA12 – 16; 19 -27)

1. Scope of the management plan

Need to define the species, the fleets and the areas that will be covered by the management plan.

2. Objectives

Following the GFCM guidelines on management plans (GFCM/36/2012), the regional plan should consider inter alia the following options:

To counteract and/or to prevent overfishing with a view to ensure the sustainable economic viability of fisheries;

To maintain and/or to restore, to the extent possible, the stock size of harvested species at least at levels which can produce the maximum sustainable yield;

To guarantee a low risk of stocks falling outside safe biological limits;

To ensure protection of biodiversity to avoid undermining ecosystems' structure and functioning;

Operational objectives

The plan should define, for each agreed objective, specific operational objectives that have practical interpretation, can clearly describe expected outcomes and can be measured with indicators. For example, in relation to the objective of "guarantee a low risk of stocks falling outside safe biological limits" the following operational objectives could be applied:

- To maintain the biomass of target species above agreed precautionary biological reference points ($B > B_{pa}$ and $F<F_{0.1}$).
- To maintain indicators of stock status and fishing pressure (according to the Table on alternative indicators and reference points) at levels which ensure the sustainability of the fishery.

In relation to the objective of "ensure protection of biodiversity to avoid undermining ecosystem's structure and functioning", the following operational objectives could be applied:

- To decrease discards of commercial and non-commercial species by (x)% in (y) years.
- To decrease the incidental catch of protected and endangered species.
- To prevent significant adverse impacts of bottom trawling fisheries on sensitive habitats by increasing the protection of areas where these habitats are known or are likely to occur.

3. Indicators and reference points

In situations where stock biomass is used as indicator of status of the stock, the following reference points could be used:

B_{lim}: a biomass level which is considered undesirable and which management actions should avoid with high probability.

B_{pa}: a threshold level of biomass established to reduce the probability that the limit reference point will be exceeded.

Bmsy: as a possible target reference point.

In situations where fishing mortality is used as an indicator of fishing pressure, the following reference points could be used:

$F_{0.1}$: The fishing mortality rate at which the slope of the yield-per-recruit curve is only one-tenth the slope of the curve at its origin.

Pending the availability of stock biomass and fishing mortality estimates and the identification of appropriate reference points, the following indicators and reference points could be used.

Indicator of stock abundance*	**Reference point**
Standardized index from scientific surveys (3)	- Historical level - Trend (e.g. increase by x% per year)
Standardized catch-per-unit-of-effort (CPUE) data from the fishery (2), assuming fishing pattern remained constant.	- Historical level - Trend (e.g. increase by x% per year)
Unstandardized CPUE data from the fishery (1), assuming fishing pattern remained constant.	- Historical level - Trend (e.g. increase by x% per year)
Indicator of stock status	**Reference point**
Mean body size in the catch (Lt), assuming that selectivity pattern is kept constant.	Lt > Lm; Lm = minimum conservation size.
Indicator of fishing pressure	**Reference point**
Fleet size (by operational units as defined by GFCM Task 1)	- Historical level - Trend (e.g. decrease by x% per year)
Fishing effort (accounting for capacity and activity, including vessel tonnage, power and	- Optimal Effort to reach MSY

days at sea)	- Historical level - Trend (e.g. decrease by x% per year)

*In brackets the relative level of reliability of the indicators of stock abundance (1 lower level, 3 higher level).

Concerning the objective of ensure protection of biodiversity to avoid undermining ecosystem's structure and functioning, the following indicators and references points could be used:

Indicator	**Reference point**
Discard rate (%)	- Historical - Trend (% over time)
Bycatch of protected/endangered species	- Historical - Trend (% over time)
Area of sensitive habitats under protection	- Historical - Trend (% over time)

4. Fisheries management measures

In order to reach the objectives of the regional management plan, and without prejudice to stricter measures adopted nationally, countries should consider the adoption of the following minimum conservation measures for the bottom trawling fisheries targeting deep water red shrimp.

Rank (effectiveness)	Management measures	Examples
High	Spatial restrictions	Prohibited fishing above coralligenous habitats. Protection of nursery areas (likely lower effectiveness for the species). Consider additional measures, such as depth limits to the fishing operation. Trawling is forbidden below 1000m depth (recommendation GFCM 29/2005/01)
Higher for *A. foliacea*	Temporal restrictions	Adopting common closed seasons for red shrimp and associated species by GSAs.
High	Gear restrictions	Minimum 40 mm square mesh or a diamond mesh size of at least 50 mm in the codend (according to Recommendation GFCM/ /33/2009/2). (Measure is expected to have a high economic impact on some segments of the fleet – multipurpose. An assessment of the impact should be carried out and measures to counteract it should be sought – see research priorities) Improve the selectivity of the gear to reduce the capture of immature individuals and bycatch (e.g. through the implementation of Bycatch Reduction Devices).
High	Minimum size	Minimum conservation sizes should be defined and harmonized in the sub-region, based on the best scientific knowledge about maturity**. Obs: Minimum conservation sizes should be used as reference points on the monitoring of the efficiency of the management plan.
High	Habitat protection	Establishment of provisions to minimize the encounter of bottom trawlers with unmapped sensitive habitats (e.g.

Rank (effectiveness)	Management measures	Examples
		through the implementation of "move-on" rules).
Medium	Participatory restrictions	Consider mechanisms to control access in order to adapt the fishing effort and fishing capacity according to the status of the resource. In view of the limited information about the stock and habitats in many GSAs, consider additional mechanisms that condition the development of fishing capacity to the acquisition of new knowledge.

**See for instance: AAVV (2008). Status of deep-sea Red Shrimps in the Central and Eastern Mediterranean Sea, Final Report. Project Ref FISH/2004/03-32; Deval, M. C. (unpublished). Some useful information for the stock assessment of giant red shrimp (*Aristaemorpha foliacea*, Risso 1827) in the Golf of Antalya, eastern Mediterranean; INTERREG II GREECE-ITALY project: New perspectives for the investigation and management of shared deep-water resources in the Ionian Sea.

5. Decision rules

The management plan will include decision rules with pre-agreed measures to be adopted under different conditions of the stock in relation to agreed biological reference points. The specific technical measures to be adopted under each stock status scenarios are to be defined in appropriate national and sub-regional working groups, taking into account the socioecomic impacts of the proposed measures.

6. Scientific monitoring

The Scientific Advisory Committee (SAC) of the GFCM should be responsible for advice on status of stocks and economic indicators of fisheries.

Adequate and periodic scientific monitoring of fisheries (including socioeconomic indicators) and exploited stocks at national level should be ensured so that SAC is in a position to provide scientific advice.

7. Research priorities to improve the assessment and management of fisheries

- Assessment of socioeconomic impact of the management plan.

(the assessment of socioeconomic impact of the proposed management measures should be carried out prior to and during the implementation of the management plan)
- Research on the valorisation of fish products through improvement in product quality (e.g. preservation techniques) and ecolabelling.
- Research to improve the selectivity of fishing gear.
- Assessment of bycatch and discards.
- Improvement of the knowledge on stock boundaries .
- Advance in the application of ecosystem/multispecies approaches.
- Improvement of the assessment of the status of associated species taking into account the multi-species characteristics of the fisheries.
- Advance in the application of bioeconomic analysis of fisheries.
- Identification of sensitive areas (VMEs) that will need to be protected from the impact of bottom trawl gears. Use of fishers knowledge complementary to scientific knowledge.
- Research aimed at understanding the relationship between deep water corals and red shrimps.
- Research to improve knowledge on the relationship between habitat characteristics (depth, sea bottom morphology and other environmental factors) on resource availability.
- Studies on the effect of horsepower on trawling operation and selectivity.

8. Fisheries Monitoring, Control and Surveillance

To ensure compliance with the measures to be adopted in the management plan, the following actions are to be implemented:

- Concerned Parties should make efforts to implement GFCM recommendations related to MCS, including those listed below:

- Vessel information submitted to GFCM Regional Fleet Register.
- Record of fishing vessels larger than 15 metres authorized to fish in the GFCM Area.
- Satellite-based VMS required for vessels >15 meters authorized to fish in the GFCM area.
- Required submission of data on vessels engaged in IUU fishing (IUU Vessel List).
- Required logbook for vessels exceeding 15 meters authorized to fish in GFCM area. Logbook shall register quantities of each species caught and kept on board, above 50 kg in live weight.
- Adoption of Port State measures to prevent, deter and eliminate IUU fishing.

- Strengthen national capacities for fisheries monitoring, control and surveillance.
- Concerned Parties are responsible for implementing the adopted management measures in their jurisdictional waters and by vessels flying their flag beyond national jurisdiction.
- Development of a specific mechanism for MCS in areas beyond national jurisdictions covered by the management plan.
- Improve the collection of fisheries statistical data, including social and economic data.

9. Review of the management plan

The contents of the management plans should be periodically reviewed in order to accommodate changes in the fisheries system. The review should be carried out as follows:

To be done by SAC:

- Status of stocks assessed yearly.
- Status of the fishery (e.g. economic indicators)
- Reference points should be proposed by the SAC once indicators are available.
- Once reference points are establish, the SAC should propose a review term for them.

To be done by Concerned Parties:

Management action taken based on stock status and fishery conditions (socioeconomic indicators) and according to the decision rules and management tools described.

Elements for the management of turbot fisheries in the Black Sea

1. Scope of this proposal

A definition of the area covered by this proposal (the *Black Sea, GSA 29*) as well as the fisheries included in this proposal and species concerned (*target* and *associated* species) will be needed.

Target fisheries:

- bottom set gillnet,

Other fisheries affecting turbot:

- Bottom trawl,
- Rapana beam trawl and dredges
- Hydraulic dredges (venus)
- midwater trawls
- longlines for dogfish

Target species:

Turbot (*Psetta maxima*). The structure of Turbot population at Black Sea is uncertain (limit between populations, degree of mixing/independency). However, ecology, biology and fishing gears are similar through all the Black Sea, and similar issues exist in the different areas, including high fishing pressure (high fishing effort, overfishing and indirect mortality e.g. bycatch) and high IUU fishing pressure due to economic value. A main research priority should be improved knowledge on population structure, but this should not prevent common management framework.

Associated species:

Bottom gillnet:

- Cetaceans
- Picked dogfish
- Thomback ray
- Common stingray

2. Objectives

Two options could be considered: a common sub-regional management plan or a common management plan structure to be implemented through national management plans. Any discrepancies with national legislations should be evaluated.

Following the GFCM guidelines on management plans (GFCM/36/2012), and in agreement with the established roadmap for fighting IUU fishing, the regional plan should consider inter alia the following options:

To counteract and/or to prevent overfishing (both direct and indirect e.g. bycatch) with a view to ensure the sustainable economic viability of fisheries;

To restore, to the extent possible, the size of Black Sea turbot stocks at least at levels which can produce the maximum sustainable yield

To guarantee a low risk of stocks of the associated species falling outside safe biological limits;

To reduce the extent of IUU fishing on turbot.

To ensure protection of biodiversity to avoid undermining ecosystems' structure and functioning;

Operational objectives

The plan should define, for each agreed objective, specific operational objectives that have practical interpretation, can clearly describe expected outcomes and can be measured with indicators. For example,

Objective

To restore, to the extent possible, the size of Black Sea turbot stocks at least at levels which can produce the maximum sustainable yield

Operational objective

- To restore the biomass of turbot above agreed precautionary biological reference points (e.g. $B > B_{target}$).

In the case that SAC has accepted different assessments for different areas, all of the accepted assessments should comply with this operational objective.

Objective

To counteract and/or to prevent overfishing (both direct and indirect e.g. bycatch) with a view to ensure the sustainable economic viability of fisheries;

Operational objective

- To maintain fishing mortality within agreed precautionary fishing mortality reference points (e.g. $F<F_{target}$)

In the case that SAC has accepted different assessments for different areas, all of the accepted assessments should comply with this operational objective. In the absence of an accepted assessment or a fishing mortality reference point, a precautionary limit should be established.

Objective

To guarantee a low risk of stocks of the associated species falling outside safe biological limits;

Operational objective

- To keep fishing mortality of the associated species at levels that allow them to be within safe biological limits.

Objective

To reduce the extent of IUU fishing on turbot.

Operational objective

- To implement by priority actions within the Roadmap for fighting IUU fishing (reference) which are relevant to turbot.
- To develop specific cooperation (exchange of information, trainning, port State measures) at Black Sea scale regarding control of turbot fishery

Objective

To ensure protection of biodiversity to avoid undermining ecosystems' structure and functioning.

Operational objective

- To decrease discards of commercial and non-commercial species by (x)% in (y) years.
- To decrease the incidental catch of protected and endangered species.
- To reduce the amount of lost fishing gear and cage nets.

3. Indicators and reference points

The indicators and reference points accepted by the SAC should be used in the management plan.

In situations where stock biomass is used as indicator of status of the stock, the following reference points could be used:

B_{lim}: a biomass level which is considered undesirable and which management actions should avoid with high probability.

$B_{threshold}$: a threshold level of biomass established to reduce the probability that the limit reference point will be exceeded.

B_{target}: B_{msyy} as a possible target reference point.

Spawning stock biomass: ratio between the spawning stock biomass and the total biomass.

In situations where fishing mortality is used as an indicator of fishing pressure, the following reference point could be used:

$F_{0.1}$: The fishing mortality rate at which the slope of the yield-per-recruit curve is only one-tenth the slope of the curve at its origin.

Concerning the objective of ensure protection of biodiversity to avoid undermining ecosystem's structure and functioning, the following indicators and references points could be used:

Indicator	**Reference point**
Discard rate of undersized turbot and associated species (%)	- Historical - Trend (% over time)

Bycatch of protected/endangered species	- Historical - Trend (% over time)
Lost and abandoned	- Recovery of a number of lost/abandoned gears - Trend (% over time)

Indicators for environmental and other anthropogenic effects on the fishery

Considering the relevance of external impacts on the performance of fisheries management, the plan should indicate a set of indicators to be monitored in connection to known environmental and other anthropogenic effects on the stocks. For turbot, the following indicators of environmental status are considered important:

- Water temperature in the spawning period
- Water temperature stratification
- Spatial extent of hypoxia

4. Fisheries management measures

In order to reach the objectives of the management plan, and without prejudice to stricter measures adopted nationally, countries should consider the adoption of the following minimum conservation measures for the turbot fisheries covered by this plan.

Management tools	Potential measures	Rank (effectiveness)
Spatial restrictions	Areas restricted to trawling	High
	Areas resticted to gillnet fisheries	High
	Areas restricted to other fisheries catching turbot as bycatch	High
	No-take areas	Medium (because no-takes are usually small)
Temporal restrictions	Close fishery during spawning season. If similar spawning season occur in diffreent areas, a common closed season should be established.	High
Effort restrictions	Limit the overall capacity of the authorized fleet	High
	Number of days. hours at sea	Medium
Minimum size	Minimum size 45 cm TL (Ukraine 35 cm SL)	High

Management tools	Potential measures	Rank (effectiveness)
	Minimum sizes should be established for: - Picked dogfish[1] - Thomback ray - Common stingray	High
Participatory restrictions	Adoption of special authorizations for turbot fishing	High
Others…	- Catch restrictions (e.g. TAC or Limit) - Bycatch restrictions (e.g. maximum number or weight of turbot allowed to be caught as bycatch) - Restocking	Medium (high IUU catches) Medium High

1. Currently minimum sizes for picked dogfish have defined in Ukraine (85 cm SL), Romania (120 cm TL), Bulgaria (90 cm TL)

5. Decision rules

Management plans will include decision rules with pre-agreed measures to be adopted under different conditions of the stock in relation to agreed biological reference points. The specific technical measures to be adopted under each stock status scenarios are to be defined in appropriate national and sub-regional working groups, taking into account the socioeconomic impacts of the proposed measures.

6. Scientific monitoring

The Scientific Advisory Committee (SAC) of the GFCM should be responsible for advice on status of stocks and economic indicators of fisheries, taking into account the work performed by its subsidiary bodies. The Working Group of the Black Sea should oversee the implementation of the management plan.

Adequate and periodic scientific monitoring of fisheries (including socioeconomic indicators) and exploited stocks at national level should be ensured so that SAC is in a position to provide scientific advice.

In line with the roadmap for fighting IUU fishing, the management plan should develop and agree on standard methodologies to evaluate illegal, unreported and unregulated catches in support of stock assessments.

7. Research priorities to improve the assessment and management of fisheries

- Stock identification
- Improving data collection, especially for small scale fisheries
- Estimation of bycatch, discard and IUU catches
- Improvement of the selectivity of the fishery, including more ecosystem friendly fishing gears
- Cooperation among countries and Black Sea Commission
- Assessment of the socioeconomic importance of the fisheries and the socioeconomic impacts of the proposed measures in the management plan both at national and regional level

8. Fisheries Monitoring, Control and Surveillance

To ensure compliance with the measures to be adopted in the management plan, the following actions are to be implemented:

- Concerned Parties should make efforts to implement GFCM recommendations related to MCS, including those listed below:

- Vessel information submitted to GFCM Regional Fleet Register.
- Record of fishing vessels larger than 15 metres authorized to fish in the GFCM Area.
- Satellite-based VMS required for vessels >15 meters authorized to fish in the GFCM area.
- Required submission of data on vessels engaged in IUU fishing (IUU Vessel List).
- Required logbook for vessels exceeding 15 meters authorized to fish in GFCM area. Logbook shall register quantities of each species caught and kept on board, above 50 kg in live weight.
- Adoption of Port State measures to prevent, deter and eliminate IUU fishing.

These obligations are already in place for the GFCM members but the possibility that some of them are used in the management plan for turbot by members and non-members of GFCM should be explored.

Additional actions to combat IUU fishing should be considered. The proposed actions should build on the elements of the roadmap elaborated in the "Joint GFCM-BSC Workshop on IUU Fishing in the Black Sea", Istanbul, Turkey, 25-27 February 2013. Specific reference to the following action in the roadmap should be made:

- Improve market control and traceability mechanisms and take measures to minimize the trade of IUU products.
- Joint adaptive inspection schemes and national observer programmes have to be envisaged.
- Carry out joint training of fisheries inspectors and other enforcement authorities

- Awareness campaigns for the protection of Black Sea fisheries against IUU fishing should be launched

9. Review of the management plan

The contents of the management plans should be periodically reviewed in order to accommodate changes (past and foreseen) in the fisheries system. The review should be carried out as follows:

To be done by SAC:

- Status of stocks assessed yearly.
- Status of the fishery (e.g. economic indicators)
- Reference points should be proposed by the SAC once indicators are available.
- Once reference points are establish, the SAC should propose a review term for them.

To be done by Concerned Parties:

Management action taken based on stock status and fishery conditions (socioeconomic indicators) and according to the decision rules and management tools described.

10. Compliance with the plan

Management actions, modifications of the plan and compliance with the plan should be reported to the GFCM within the National Report submitted yearly to the GFCM (the use of the common format decided for the GFCM and Black Sea Commission is recommended). The Compliance Committee of the GFCM shall review this report and take necessary actions.

Appendix H

Elements for the concept note:
First regional programme on small-scale fisheries

General structure

The regional programme on small-scale fisheries would be articulated around the following five thematic/strategic areas as identified by the Symposium:

- Current situation of small-scale fisheries in the Mediterranean and the Black Sea: strategies and methodologies for an effective analysis of the sector
- Management and co-management options for small-scale fisheries in the Mediterranean and Black Sea
- Integration of small-scale fisheries in marine protected areas (MPAs)
- Enhancing small-scale fisheries value chains in the Mediterranean and Black Sea
- Setting up a regional platform to promote the implementation of the voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines)

The workplan and outputs of the programme will build on the conclusions of the Symposium and will be jointly decided in a participatory process with organizations joining the programme. The SSF regional programme will be used as a framework to develop specific projects with any of the organizations or consortia of organizations joining the programme.

General objectives

The overall focus of the first regional programme on small-scale fisheries is to promote the successful management of SSF in the Mediterranean and Black Sea, delivering on the ecosystem approach to fisheries (EAF) while improving livelihoods, economies and food security of coastal communities.

GFCM Framework Programme in support of Task Force activities (FWP)

The regional programme on small-scale fisheries builds on and is consistent with the FWP work package (WP) 4: "Enhancing the development of artisanal fisheries. Assessing the status of recreational fisheries". More specifically, it shares the WP4 overarching outcomes: "better management and control of artisanal fisheries to support fisheries-dependent coastal communities relying on these resources" as well as output "strategic and programmatic interventions to improve the livelihoods and sustainability of artisanal coastal fishing communities implemented; fishers' organizations strengthened and co-management regimes in place".

Strategy

During the first year of the programme, a series of case studies on SSF covering a range of geographic and socioeconomic situations related to the five thematic areas will be undertaken. The selected case studies should be balanced in their geographical coverage taking into account well-known and new cases on SFF. An analytical framework to analyze the case studies will be developed and existing data will be used as starting point to identify gaps and needs.

Specific objectives

Provisional identified specific objectives include the following:

- Identify existing good practices in SSF at the national level concerning governance, management measures (including area management/MPAs), value chain and diversification of economic activities. Good practices can range from single specific issues to comprehensive management schemes;
- Establish a Mediterranean and Black Sea regional network of good practices (see above point) and try to include at least one case study per GFCM country;
- Establish in parallel a regional network of pilot multi-stakeholder co-managed fisheries; the network would include 1–2 fisheries case studies per subregion. Case studies will be comprehensive and address governance (e.g. co-management committees, community-based data collection programmes, stakeholder involvement in MCS, etc.), management and value chain issues;
- Establish national fora gathering multi-stakeholder platforms supporting the regional programme (i.e. "Sustainable Fisheries Forum"); support and empower such platforms;
- Identify capacity-building needs (training, technical assistance, etc.), design and implement related programmes covering governance, management measures (i.e. EAF toolkit), value chain and diversification of economic activities;
- Establish a well-designed exchange programme targeted primarily to fishers to spread/replicate good practices across the region.

Implementation

GFCM Secretariat and relevant party organizations.

Programme duration

2014–2018: 4 years

Funding

The implementation of the regional programme will be subject to available extrabudgetary resources. It will be supported by *ad hoc* funding mechanisms (e.g. through multilateral trust-funds settings). Potential donors include GFCM Members, non-Members, international organizations and private foundations/entities.

List of case studies for the first year of the regional programme

- **Algeria**: one case study in Hadjrat Ennas, and one case study in Taza
- **Egypt**: one case study in Alessandria and in areas where there are conflicts between SSF and recreational fisheries
- **FAO regional project AdriaMed**: one case study in the Adriatic Sea
- **France**: case studies to cover interactions between SSF in lagoons, marine areas and SSF and MPAs in the Gulf of Lion
- **Italy**: one case study in the Egadi Islands in NW Sicily where conflicts between trawling, purse seine, MPA and SSF occur. Possibly other case studies
- **MedArtNet**: one case study on the Mediterranean Platform of Artisanal Fishers (MedArtNet)
- **Morocco**: one case study linking SSF and MPA in Morocco

- **Spain**: one case on spiny lobster and associated artisanal fisheries in the Minorca channel (Balearic islands, western Mediterranean); one case study on bivalves fisheries in the northern Alborán Sea (western Mediterranean); one case study on eel fisheries in the Mar Menor
- **Tunisia**: one case study on the Kerkennah islands and one case study on the Bahiret el Bibane lagoon
- **Turkey**: one or more case study/ies in the Black Sea in cooperation with the Coast-to-Coast NETworks Project (CoCoNET)
- **WWF**: one case study on sand eel SSF in Catalonia, Spain

Course of action

GFCM will contact proponents of case study to get details to complete the concept note which will be submitted for review and validation. Once the concept note is finalized, it will be presented to the thirty-eight session of the GFCM Commission for endorsement.

Outline of small-scale fisheries case studies for the preparation of a concept note (max. 3 pages)

1. Name and geographical location of the case study area
2. Environmental and socioeconomic characteristics of the study area
3. Data availability and stakeholders implication for data gathering
4. Basic information regarding on-going projects on small-scale fisheries (if available)
5. Description of small-scale fisheries and other fisheries in the area (management plan if any, etc.)
6. Value chain profile and existing examples of diversification (if any)
7. Description of fisheries co-management regimes in place, planned or about to be established
8. Existing Marine Protected Area (MPA) in the study area (if any)
9. Interactions between small-scale fisheries and other activities in the study area (aquaculture, fisheries, tourism, etc.)
10. Examples of best practices concerning governance and management measures in the study area
11. Pictures and maps of the proposed study area if available
12. Any other relevant information

Appendix I(a)

Summary tables of National Reports 2014

Albania

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 18

B. Total landings: 3 889 tonnes (2013, 9 months); 4 919 tonnes (2012)

C. Fleet: 584 vessels (2013); 597 vessels (2012)

Section 2 - Status of stocks of priority species

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

National system for fisheries statistics is not in place.

VMS system built based on: "Politics and the procedures of functioning of Inter-institutional Operational Maritime Centre (IMOC) in all fishing vessels over 12 m to strengthen the surveillance of the fishing fleet and ensuring reliable, systematic and improved collection of data on the fishing fleet, catches, landings and the biological status of the stocks.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

GFCM Task 1 data

D. Existing databases and synergies with other applications

Newly developed Catch Information Data Base, Fishery Inspector Information Support System and Catch Validation Data Base.

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
Bottom fish reserve monitoring in Albanian seawaters		Biological sampling	Biological material obtained through random sampling from bottom trawlers in four ports (main species: haddock, mullet, anchovy, pink shrimp, sardines)

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
Survey on socio-economic data of Albanian fisheries	May 2013	Collection of socio-economic data	More than one hundred interviews were carried out covering the four main ports of Albania. All fishing fleet segments were covered. Passive gears and trawlers appeared to be economically profitable in 2012, with a moderate rate of return on investment for artisanal vessels (around 9%) and a high rate (around 46%) for big trawlers.

C. Marine environment studies

Research/project title	Duration	Main topic	Description

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

AdriaMed project in 2013:

- Monitoring activities of small pelagic and demersal species and necessary workshops and working groups to analyze results;
- National Survey on economic and social aspects;
- National survey on Small Scale Fisheries;

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- "Establishment of a National framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Albanian Fisheries Policy"
- "Establishment of a control system for ensuring compliance with the rules of the management fisheries policy"
- "Management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea"
- "Establishment of a system to prevent, deter and eliminate illegal, unreported and unregulated fishing"

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

No data on the incidental catches of cetaceans in Albanian waters.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

Algeria

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 04

B. Total landings: 108 207 tonnes (2012); 104 008 tonnes (2011)

C. Fleet: 4 403 vessels (2012); 4 316 (2011)

Section 2 - Status of stocks of priority species

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

Le secteur de la pêche et des ressources halieutiques algérien, déploie de nombreux efforts pour améliorer son système statistique existant à travers un suivi quotidien des informations statistiques récoltées au niveau local et qui sont transmises à l'administration centrale pour qu'elles soient introduites automatiquement dans une base de données nationale.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

En ce qui concerne les engins de pêche, il est à rappeler qu'une étude inscrite dans le cadre du projet FAO CopeMed II relative à la sélectivité du chalut à mailles carrées a été lancée et les résultats sont en cours d'analyse.

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

Pour ce qui est de la transmission des données statistiques à la CGPM et à toute autre institution internationale, l'Algérie a régulièrement communiqué les informations demandées.

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
Suivi de l'écosystème pélagique exploité		Dynamique des écosystèmes exploités	
Suivi de l'écosystème démersale exploité		Dynamique des écosystèmes exploités	
Suivi des grands pélagiques et des thonidés mineurs		Dynamique des écosystèmes exploités	

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
Survey on socio-economic data of Albanian fisheries	May 2013	Indicateurs socio-économiques	Programme d'enquêtes socioéconomiques sur la population des marins pêcheurs à l'échelle nationale est mis en place dans l'objectif de combler le vide en matière d'informations et afin de disposer des éléments qui viennent pour accompagner la stratégie du développement de la pêche.

C. Marine environment studies

Research/project title	Duration	Main topic	Description

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Le projet de coopération avec FAO relatif à la mise en place de l'observatoire socio-économique des pêches et de l'Aquaculture cité au chapitre « État des statistiques et du système d'information » et ayant pour mission la redynamisation du réseau d'information et d'harmonisation des méthodes de collecte de données de débarquement avec l'application de l'outil SSPAL a été menée et clôturé en juin 2013.

Les principaux résultats obtenus du projet suscité sont :

- Formation de plus de 240 personnes, en matière d'échantillonnage des pêches, d'identification des espèces et des engins de pêche, d'analyse et de traitement des données, d'aménagement des pêcheries et Socio-économie des pêches.
- Mise en place d'un système d'échantillonnage des débarquements des pêches, avec l'installation d'un logiciel spécifique au niveau de trois wilayas pilotes (Alger, Ain-Temouchent et Jijel);
- Élaboration de deux rapports du diagnostic (Système statistiques des pêches en Algérie, Aménagement des pêcheries en Algérie);
- Publication d'un guide des principales espèces débarquées en Algérie;
- Acquisition des équipements bureautiques et informatiques.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

Bulgaria

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 29
B. Total landings: 9 507 tonnes (2013); 7 974 tonnes (2012)
C. Fleet: 2 043 vessels (2013); 2 366 (2012)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Psetta maxima		depleted/overfishing	29	Y	
Sprattus sprattus		sustainably exploited	29	Y	
Squalus acanthias		depleted	29	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Two information systems to serve the needs of different management and operative levels – Information Statistical system (ISS) and Vessels Monitoring system (VMS)

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
C. Type of data collected, transmission to GFCM Secretariat and other international bodies
D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
ComFish FP7		Stakeholders involvement	ComFish aims to identify important fisheries topics with long term impacts and ascertain whether scientific results have been properly communicated to fisheries stakeholders.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
FP7 EU MISIS		Environmental status	Environmental monitoring of the Black Sea Basin and a common European framework programme for the development of the Black Sea region.
COCONET FP7		MPAs, renewable energy	Towards networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential.
PERSEUS FP7			Policy-oriented marine Environmental Research for the Southern European Seas.
DEVOTES FP7	2012-2016	Environmental status	This project aims at improving understanding of human activities impacts (cumulative, synergistic, antagonistic) and variations due to climate change on marine biodiversity, using long-term series (pelagic and benthic).
Monitoring of the coastal marine waters		Environmental status	Biological quality elements investigated in 2013 were phytoplankton, macrozoobenthos and macroalgae.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received
No involvement.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Council regulation (EU) No 5/2012 from 19th December 2012: Fixing for 2012 fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Black Sea
- Council implementation regulation (EU) No 672/2013 amending Regulation (EU) No 468/2010 establishing the EU list of vessels engaged in illegal, unreported and unregulated fishing

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Call for tenders MARE/2011/16 "Adverse fisheries impacts on cetacean populations in the Black Sea" is in progress and will bring data and results related to by0-catch and mitigation measures.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

- Age reading of anchovy, red mullet and turbot
- Stock identification study for turbot (*Psetta maxima*)
- BlackSeaFish project proposal
- Effects of beam trawling on the seabed habitats and mussel beds
- Promote and integrate fisheries research as part of Ecosystem Based Management

Croatia

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 18, 19
B. Total landings: 62 297 tonnes (2012); 69 700 tonnes (2011)
C. Fleet: 7 770 vessels (2012); 4 232 vessels (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Sardina pilchardus	2012	high risk of overexploitation	17	Y	
Engraulis encrasicolus	2012	overexploited and in overexploitation	17	Y	
Solea solea	2012	overfished	17	Y	
Mullus barbatus	2012	overfished	17	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Croatian Fishing Fleet Register is an electronically-kept register, now web-based, in which relevant data on vessels and vessel activities are registered. At the moment, data are being entered and cross-checked.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
C. Type of data collected, transmission to GFCM Secretariat and other international bodies
D. Existing databases and synergies with other applications
Croatia has established links between responsible authorities (Croatian Bureau of Statistics and the MoA) in order to meet the relevant requirement and secure the delivery of statistical data in a unified manner.

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
DEMMON		Evaluation of demersal resources	Fisheries and biological data collection includes on board sampling and laboratory analysis, sampling on the landing ports and gathering basic socio-economic data.
PRIMO		Monitoring of coastal fisheries	
MEDITS	Since 1996	Biological sampling	Mediterranean International Bottom Trawl Survey.
SOLEMON		Evaluation of demersal resources	Evaluation of stock of common Sole (*Solea solea*) and other flatfish in the Adriatic Sea.
DEEP SEA	Since 2008	Evaluation of resources	Investigation of distribution and status of biological resources in deep south Adriatic.
UWTV	Since 2011	Evaluation of resources	Alternative assessment of biomass stock of Norway lobster.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
Systematic exploration of the Adriatic Sea as basis for sustainable resources management		Environmental status, renewable energy	Monitoring of biotic and abiotic parameters relevant to the marine environmental and renewable resources.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received
Croatia is fully involved in all activities carried out by AdriaMed project.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events
No by-catches of cetaceans were recorded in 2013.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

B. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol
There were no recorded by-catches of Annex II or III shark species.

Section 10 - Proposals for future research programmes

- Concerning small pelagic fish species, determination and monitoring of spawning grounds as well as nursery area is necessary
- International monitoring of demersal resources in Jabuka Pit. Jabuka/Pommo Pit as principal fishing ground in the Adriatic Sea for Croatian and Italian bottom trawl fisheries fleet.

Egypt

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 26

B. Total landings: 69 332 tonnes (2012); 77 799 tonnes (2011)

C. Fleet: 4464 vessels (2012); 4 529 (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Metapenaeus stebbingi		in overfishing	26	N	
Euthynnus alletteratus	2013	overexploited	26	N	
Saurida undosquamis	2012	in overfishing (high)	26	Y	
Mullus surmuletus	2012	in overfishing (high)	26	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

The General Authority for Fish Resources Development (GAFRD) collects fisheries data. The statistics collection procedures have recently been upgraded and monitoring, control and surveillance activities have been improved.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

Evaluation of lizard fish, red mullet, shrimp, sepia and sardine with the support of FAO EastMed project.

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
		Stock assessment	Scattered stock assessment studies are conducted by different universities and by the National Institute of Fisheries and Oceanography.
		Gear selectivity	The Arab Academy for Science and Technology and Maritime Transport started a study to improve the Egyptian bottom trawl selectivity and reduce the high rate of by-catch in trawling activities.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
		Socio-economic data	A sampling survey in order to investigate the main socio-economic characteristics of the fishing vessels by type of fishery, the study was conducted with the EastMed project support.

C. Marine environment studies

Research/project title	Duration	Main topic	Description

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

The Gulf of Sallum was declared as the first marine Egyptian protected area in the Mediterranean Sea by the Egyptian Prime Minister's decision No. 533 (2010) for the purpose of fisheries and biodiversity conservation.

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

- Research on stock status and exploitation levels of the main pelagic fisheries.
- Fishing harbour facilities need to be improved at strategic sites.
- Enlarge and modernize offshore fishing in the Egyptian EEZ and international waters.

France

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 08, 09

B. Total landings:

C. Fleet: 1 455 vessels (2012); 1 325 vessels (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius		high overexploitation	07		
Mullus barbatus		high overexploitation	07		
Engraulis encrasicolus		stable biomass, decreasing production	07		
Sardina pilchardus		stable biomass, increasing abundance	07		

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

Système d'Information Halieutique (SIH) de l'Ifremer.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

SIH considère l'ensemble du système pêche, dans toutes ses composantes et sur l'ensemble des façades. Il s'appuie notamment sur l'échantillonnage des captures commerciales (à terre et en mer) dont les paramètres biologiques, les campagnes à la mer, les pêches récréatives, les statistiques de pêche, les enquêtes activités et économiques. Il est dépositaire des cahiers des charges et des spécifications techniques pour les plans d'échantillonnage, la collecte, le stockage, l'accès aux données halieutiques, les restitutions internes et externes. Il élabore des indicateurs intégrés sur les pêcheries et réalise des synthèses à destination des acteurs de la filière pêche et du grand public.

D. Existing databases and synergies with other applications

Données intégrées dans la base HARMONIE et les protocoles sont disponibles sur un site web dédié (www.ifremer.fr/sih). La collecte des données de Méditerranée sur les ressources exploitées par la pêche professionnelle est réalisée dans le cadre de la DCF (Data Collection Framework).

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
Programme d'échantillonnage biologique et paramètres biologiques		Echantillonnage biologique	Structure en taille et/ou en âge des captures (apports commerciaux) des principales espèces exploitées par différents métiers, ainsi que les paramètres biologiques afférents, pour l'évaluation des stocks.
ObsDeb		Enquêtes d'activités et des ébarquements des navires de moins de 12 mètres	Enquêtes mensuelles sont conduites pour estimer le calendrier d'activité de chaque navire de pêche professionnelle < 12 m en mer et en lagune, et l'effort de pêche et la production des navires par échantillonnage aléatoire des marées, de la frontière italienne à la frontière espagnole (GSA 07). En Corse (GSA 08), l'activité des navires est recensée par enquête chaque année.
ObsMer		Observation des captures	L'objectif d'ObsMer est de permettre une meilleure compréhension de l'interaction entre les ecosystèmes marins et les activités de pêche. Le programme vise à observer la capture dans son ensemble et les activités de pêche, ainsi que l'environnement de la marée. Ces données servent notamment pour le calcul d'indicateurs de capture aux niveaux régional, national et européen, qui sont utilisées pour les évaluations de stocks.
ObsMam		Observation des captures accidentelles de	Ce programme d'observation a été tenu d'assurer chaque année une couverture de 5% de la flottille pratiquant le chalutage pélagique. Depuis 2008, ce programme est

Research/project title	Duration	Main topic	Description
		mammifères marins	inclus dans le programme OBSMER.
Programme d'observations du thon rouge	depuis 2009	Thon rouge	Prospections aériennes du thon rouge dans le golfe du Lion.
SELPAL		Thon rouge	Programme sélectivité de la flottille palangrière ciblant le thon rouge dans le golfe du Lion.
MEDITS	depuis 1993	Pratiques d'échantillonnage	Campagne française de chalutage annuelle d'évaluation des ressources démersales.
PELMED	depuis 1993	Évaluation des stocks de petits pélagiques	Évaluation des stocks de petits pélagiques menée une fois par an en juillet avec l'aide de prospections acoustiques, par la méthode d'écho intégration (à l'aide du logiciel Movies+) et de chalutages d'identification associés.
RECOPESCA		Géolocalisation	Projet pilote pour tester un système de géolocalisation de navires de pêches exploitant la technologie RECOPESCA, pour caractériser précisément l'effort de pêche de métiers ou de navires concernés par les plans de gestion européens et non équipés de système VMS.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
EcoPelGol	2012- 2015	Etude de la dynamique de l'Ecosystème Pélagique du Golfe du Lion	Ce projet s'attache mécanismes gouvernant la dynamique et l'état des populations de petits pélagiques dans le Golfe du Lion à partir des données PELMED ainsi que des échantillons biologiques reçus mensuellement.
IPEP	depuis 2010	Impact de la pêche sur les espèces protégées	Ce projet a pour objectif d'acquérir des connaissances sur l'écologie des requins pélagiques et des tortues marines et d'identifier les interactions avec les engins de pêche

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- "Elaboration de Plans de Gestion en application du règlement européen (CE) 1967/2006"

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

Section 11 - Recommendation GFCM/35/2011/4 on the incidental by-catch of sea turtles in fisheries in the GFCM competence area

A. By-catch events

Species	N specimen	Day/month/year	Vessels' type	Gear	GSA or statistical grid	Main target species	N discarded dead	N released alive	N unknown
Caretta caretta	48	2010-2013	Trawlers				3	44	1
Caretta caretta	7	2010-2013		Hooks and lines			1	6	
Caretta caretta	62	2010-2013		Lift/surrounding nets			18	21	23
Dermochelys coriacea	1	2010-2013		Lift/surrounding nets				1	
Dermochelys coriacea	2	2010-2013		*unknown*				2	

Greece

Section 1 - Description of fisheries

A. Fishing grounds (GSAs):

B. Total landings: 60 090 tonnes (2012, provisional data); 62 847 tonnes (2011)

C. Fleet: 15 844 vessels (31/12/2013); 16 696 (31/12/2012)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Engraulis encrasicolus	2000-2008	Fully exploited	22		
Sardina pilchardus	2000-2008		22		
Mullus barbatus	2009		22, 23		
M. surmuletus	2009		22, 23		
Merluccius merluccius	2009		22, 23		
Parapeneus longirostris	2009		22, 23		

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

The Hellenic Statistical Authority (EL.STAT). No significant changes of the pattern of collecting fisheries data have taken place during the last years.

The Directorate General for Fisheries (Ministry of Rural Development, and Food) collects data on: a) fish landing data for specific species (bluefin, swordfish and albacore); b) statistical trade data concerning imports, exports and re-exports of swordfish and bigeyed tuna; c) statistical data concerning imports of fishery products from third countries; d) fish landing data from vessels that land catches to foreign ports.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
National Fisheries Data Collection Programme	2011-2013	Biological-Metier-related variables	Data on landings and discards for all the métiers were collected for the last quarter of 2013 through on-board and on-shore sampling. The data collection has covered the 70- 90% of the sampling goal for the given period depending on the métier and region.
National Fisheries Data Collection Programme	2011-2013	Stock-related variables	Data collection for the stock-related variables (age, length, weight, sex, maturity and fecundity).
National Fisheries Data Collection Programme	2011-2013	Eel monitoring	Annual and the monthly eel productions (t) per lagoon were recorded; eel samples were collected and for each sample all the biological characteristics (length, weight, diameter of the eye, length of pectoral fin) were measured, while biological samples, i.e. parasites, otoliths and gonads, were also collected.
MEDITS	2011-2013	Biological sampling	
MEDIAS	2011-2013	Biological sampling	
Estimation of Biological Parameters and transversal variables relating to the fishing activity of drifting long lines	2013	Biological sampling	Length composition and the age structure of catches of swordfish estimated from random measurements of individuals landed from drifting long line fishery which targets swordfish (*Xiphias gladius*), blue-fin tuna (*Thunnus thynnus*) and albacore (*Thunnus alalunga*).
Management plan for the operation of traditional Hellenic boat seines		Management plan	Management plan focused on the traditional seines called 'vintzotrates' operating in Hellenic waters.
TrawlPlan		Management plan	Management plan for the demersal trawl fisheries in the Aegean and Ionian seas.
Molecular methods for		Identification of fish	Molecular methods applied in defining potential genetic

Research/project title	Duration	Main topic	Description
marine biodiversity assessment, the traceability of fisheries products and the identification of fish populations		species	population structures within the area of repartition of a particular fish species.
Archimedes		Fisheries controls	Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using an algorithm based on the technical characteristics of these gears to enable the Fisheries Inspectors to estimate the length of the net using its volume or weight.
DeepFishMan		Deep-sea fisheries	Management and Monitoring of deep-sea fisheries and stocks with the objectives of: i) identifying and developing new and more effective monitoring and assessment methods, reference points, control rules and a management framework to be used in the short term and ii) developing a long-term monitoring and management framework to achieve reliable long-term management requirements.
Stock units in the Mediterranean		Identification of stock units	Identification of distinct biological units (stock units) for different fish and shellfish species and among different GFCM-GSAs.
MESMA		Spatial planning	MESMA project focuses on marine spatial planning and aims to produce integrated management tools (concepts, models and guidelines) for monitoring, evaluation and implementation of Spatially Managed Areas (SMAs).
MEDPEL		Catch and by-catch rate	Catch rate determination of albacore, swordfish and bluefin tuna and the characterization and quantification of associated by-catch and discards in Mediterranean pelagic long-lines fisheries.
CREAM		EAF	Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
National Fisheries Data Collection Programme	2011-2013	Economic variables	Collection of the socio-economic variables
BEMTool		Bio-Economic Modelling tools	Development of an integrated bio-economic modeling tool to develop and support multi-objective approaches for fisheries management.
JAKFISH		Stakeholders	Judgment And Knowledge in Fisheries Involving StakeHolders is a project to examine and develop the institutions, practices and tools that allow complexity and uncertainty in fisheries management to be effectively taken into consideration within participatory decision-making processes.
MAREA		Knowledge transfer	Mediterranean hAlieutic Resources Evaluation and Advice – Horizontal Services is a project which aims to organize a consortium of European research Institutes and Centre with expertise in fisheries research and which will be readily available to offer scientific advice on fisheries issues.
FISHINMED		Sustainable small-scale fishing communities	Mediterranean Network linking public and private institutions to support the social-economic local development of small-scale fishing communities thus favouring the diversification of fishing activities and the socio-economic relations for an integrated valorisation of the coastal area.
SOCIOEC		Stakeholders	European wide project bringing together scientists from several fisheries sciences with industry partners and other key stakeholders to work in an integrated manner on solutions for future fisheries management that can be implemented at a regional level.
MYFISH	2009-2015	MSY	Maximising yield of fisheries while balancing ecosystem, economic and social concerns. This project will: i) provide definitions of MSY variants which maximize other measures of "yield" than biomass and which account for the fact that single species rarely exist in isolation; ii) redefine the term "sustainable" to signify that Good Environmental Status (MSFD) is achieved and economically and socially unacceptable situations are avoided, all with acceptable levels of risk.

C. Marine environment studies

Research/project title	Duration	Main topic	Description
Albamonte		Alien species	Assessment of distributional patterns of a selected number of invasive alien marine species in the Albanian and Montenegrin coasts.
MIAS		Alien species	Inventory of marine invasive alien species across European seas.
ARCHITECTURE		Coastal ecosystems	Architecture and roadmap to manage multiple pressures on lagoons; the project aims to the study and management of coastal marine aquatic ecosystems such as coastal wetlands.
DEVOTES		Environmental status	Development of innovative tools for understanding marine biodiversity and assessing good environmental status.
Monitoring of protected coastal marine areas	2013	MPAs	Scientific monitoring of three protected marine areas, created around artificial reefs in the Aegean and Ionian Sea.
BENTHIS		Benthos	Study of the diversity of benthic ecosystem in European waters and the role of benthic species in the ecosystem functioning. Fisheries impact is studied on benthic organisms and on the geo-chemistry.
ODEMM		Coastal ecosystems	The overall aim of the ODEMM project is to develop a set of ecosystem management options that would deliver the objectives of the Marine Strategy Framework Directive, the Habitats Directive, the European Commission Blue Book and the Guidelines for the Integrated Approach to Maritime Policy.
ConShagAudMIBAGR		Seabirds	Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece, including the inventory of relevant marine Important Bird Areas (mIBAs).
CoralFISH		Corals	Assessment of the interactions between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond.
Kouponia		Coastal ecosystems	Collection of environmental, ecological, oceanographic and fisheries data for the Argolikos gulf.
MEDISEH		Sensitive habitats	This study aims at the compilation and mapping of environmental and fisheries related information in the Mediterranean Sea by means of Geographical Information Systems (GIS). Integration and mapping of the spatial information on sensitive habitats.
NETMED		MPAs	Design of an ecologically coherent network of marine protected areas for the entire Mediterranean basin, based on the principles of systematic conservation planning; an efficient, transparent and holistic approach for marine reserves design, which informs their location, configuration and management.
PEGASO		ICZM	Building on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean.
WISER		Environmental status	Integrative system to assess ecological status and recovery by developing tools for the integrated assessment of the ecological status of the European surface waters.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Participation in EastMed FAO Project activities (April 2013-February 2013):

- Training course improving the analysis of fisheries data (Rome, Italy, November 2013), co-organised by EU, FAO, EastMEd and other FAO sub-regional projects.
- Annual meeting of the permanent working group of EastMed Project on stock assessment (Kavala, Greece, September 2013)

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc.) taken in direct response to GFCM recommendations including assessment of their effects

- National management plan for small pelagics establishing annual license systems, defining reference points and targets for the sustainable exploitation of sardine and anchovy. Implemented in 2012.
- Progress in the development of national management plans for trawling and for eel.

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

Italy

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 09, 10, 11, 15, 16, 17, 18

B. Total landings: 195 800 tonnes (2012); 210 324 tonnes (2011)

C. Fleet: 12 897 vessels (2012); 13 078 (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius	2012	high overfishing	12, 13, 14, 15, 16	Y	
M. merluccius	2012	high overfishing	18	Y	
M. merluccius	2010	overexploited	09	Y	
Mullus barbatus	2011	overexploited	15, 16	Y	
M.barbatus	2012	sustainable exploitation	10	Y	
M. barbatus	2010	overexploited	09	Y	
Solea vulgaris	2012	high overfishing status	17	Y	
Pagellus erythrinus	2011	overexploited	15, 16	Y	
P. erythrinus	2009	overexploited	09	Y[2]	
Mullus surmuletus	2010	overexploited	09	Y	
Lophius budegassa	2010	overexploited	15, 16	Y	
Nephrops norvegicus	2010	overexploited	09	Y	
Squilla mantis	2011	overexploited	17	Y	
S.mantis		overfishing	09	N	
Parapenaeus longirostris	2012	high overfishing status	18	Y	
P. longirostris	2012	high overfishing status	12, 13, 14, 15, 16	Y	
P. longirostris	2010	moderately exploited	09	Y	
Aristaeomorpha foliacea	2010	overexploited	15, 16	Y	
A. foliacea		overfishing	11	N	
A. foliacea		overfishing	09	N	
A. antennatus	2010	overexploited	09	Y	
Engraulis encrasicolus	2012	overexploitation	16	Y	
E. encrasicolus	2012	overexploited and in overexploitation	17	Y	
Sardina pilchardus	2012	overexploited and in overexploitation	16	Y	
S. pilchardus	2012	high risk of overexploitation	17	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred

Fishery statistics are collected within the European Regulation on Data Collection (EU reg. n. 199/2008). Statistics are produced on the basis of a sample of national fishing fleet, yearly updated, and their reliability is guaranteed by specific validation software. The General Directorate for Fisheries and Aquaculture (MIPAAF) is in charge of the overall coordination of the implementation of the National Data Collection Programme.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

Fishery statistics are transferred to GFCM (through the Task 1 tool), to the European Commission, to Eurostat and to other RFMOs (like ICCAT). They are currently used by the national administration to support political decisions and to monitor the state of the fishing sector.

D. Existing databases and synergies with other applications

Within the European Regulation on Data Collection (EU reg. n. 199/2008) a centralized database has been developed to store fishery statistics (capacity, effort and landings data), economic data of the fleet, economic data of the aquaculture sector, economic data of the processing industries, biological data (parameters of the population by species and surveys data), and ecosystem indicators.

[2] not validated

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
		Knowledge transfer	Development of a net for the exchange of information between national researchers
		GIS tools	Development of the System GIS-PESCA on the entire coastline also including aquaculture sites.
		Fish products safety	Nutritional and safety aspects of fish species from fishery and aquaculture
		Eel	Assessment of *Anguilla anguilla* in the framework of UE Reg. 1100/2007.
		Stock assessment	Preliminary assessment of the main species of Elasmobranchs.
		Fish parasites	Diffusion of *Anisakis sp* and potential risks.
		Fish products safety	Species identification of fishery products.
		Knowledge transfer	Dissemination of scientific data, stock assessment data among fishers.
		Stock assessment	Optimization of methodologies of sampling for stock assessment
		Bio-economy	Bio-economic models

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
		Socio-economics indicators	Productive structures analyses and socio-economic characteristics of Italian Fisheries.
			Sustainability and management tools for Italian fishery: an impact assessment of TURF.

C. Marine environment studies

Research/project title	Duration	Main topic	Description
		By-catch	Assessment of by-catch of protected species in the pelagic trawl
		Red coral	Assessment of the red coral in the Italian seas

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

AdriaMed, MedSudMed and EastMed projects:

- 5 joint scientific surveys have been jointly carried out in the Adriatic Sea;
- 2 joint stock assessment (*Parapnaeus longirostris*, *Merluccius merluccius*) have been produced in the south-central Mediterranean (Straits of Sicily);
- 6 joint stock assessment (*Parapnaeus longirostris*, *Merluccius merluccius*, *Mullus barbatus*, *Solea solea*, *Engraulis encrasicolus*, *Sardina pilchardus*) have been produced in the Adriatic Sea;
- 4 stock assessment (*Mullus barbatus*, *Saurida undosquamis*, *Metapenaeus stebbingi*, *Spicara smaris*) have been produced with the support of the EastMed Project.
- Involvement either trainer and/or trainees in 12 theoretical or on-the-job training activities on the collection, storing and processing of fishery related data;
- Involvement in 17 technical meetings in the Adriatic Sea, the Straits of Sicily and the Eastern Mediterranean including working groups on demersal and small pelagic fisheries resources, study groups, seminars and technical meetings.
- Technical supported has been provided to Turkey, Egypt, Lebanon, Albania and WBGS for the establishment of a monitoring system for fisheries (socio-economic and catch and effort).
- Within the EastMed Project a fisheries independent survey was in conduct in Egypt to explore the possibility of exploiting the venus clam *Chamelea gallina*.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Species	N specimen	Day/month/ year	Vessels' type	Gear	GSA or statistical grid	Main target species	N discarded dead	N released alive	N unknown
Tursiops truncatus	31/year	2006-2013	mid-water pair trawlers		17				

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Species	Annex	N specimen	Weight (tonnes)	Day/month/ year	Vessels' type	Gear	GSA	Retained for sale?	N discarded dead	N released alive
Alopias vulpinus	III							Y		
Prionace glauca	III									
Pteromylaeus bovinus	n. a.									
Mustelus spp.	III							Y		
Pteroplatytrygon violacea	n. a.									
Raja spp.	n. a.									
Squalus acanthias	III							Y		
Myliobatis aquila	n. a.									

Section 10 - Proposals for future research programmes

From a general point of view, the following lines of research are proposed:

- evaluating optimal exploitation strategies and adequate indicators and reference points for multispecies fisheries;
- studying stock-recruitment relationships;
- improving knowledge on population biology and to identify the population units (stock boundaries);
- revising borders of some GSAs on the basis of available information
- mapping spawning grounds and other essential fish habitats
- assessing impact of fishing on communities and ecosystems
- investigating effect of climate change on stock dynamics
- evaluating spatial management measures (no take zones, fishery restricted areas, marine protected areas)
- improving knowledge on the effect of fishery at ecosystem level, performing specific studies on discards and impact on the sea bottoms.
- developing the assessments by bio-economic models

In special areas such as the Strait of Sicily and the Adriatic Sea, where straddling and transboundary stocks are shared by fisheries of several countries, it is considered relevant:

- improving knowledge on population biology and the identification of population units, including genetic approaches, to clarify relationships and connectivity among populations;
- supporting a common collection of data on stocks and fisheries, based on both fishery independent and dependent approaches, within the framework of an international program;
- assisting the develop of a common geo referred data base reporting both bathymetric, substratum features, biocenoses, and fishing grounds at regional level.
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Section 11 - Recommendation GFCM/35/2011/4 on the incidental by-catch of sea turtles in fisheries in the GFCM competence area

A. By-catch events

Species	N specimen	Day/month/year	Vessels' type	Gear	GSA or statistical grid	Main target species	N discarded dead	N released alive	N unknown
Caretta caretta								95%	

Lebanon

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 27
B. Total landings: 4 540 t (2012)
C. Fleet: 2 662 vessels (2004)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Country-wide data collection carried out by the Institute of the Environment, University of Balamand (IOE-UOB). CIHEAM Pesca Libano Project developed a Marine Coastal Information System (MCIS) which is a multipurpose, interoperable and extensible platform based on a spatial relational database in a modular server/client structure, remotely accessible by multiple users and with different software tools, and with a set of dedicated web-based tools to explore and manage the wide range of fisheries related data collected and organized by the Pesca Libano project.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
Ministry of Agriculture (MOA) through the assistance of FAO EastMed Project (in collaboration with University of Balamand) started a pilot project to collect catch data for the whole Lebanese coast as of the second half of 2013. MOA staff is receiving training and collecting data that should cater for Task 1 requirements. Major difficulties were encountered by data collectors. Data entry is supposed to follow FLOUCA model, but expected to be web-based. The system is expected to be fully operational in 2015.

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

D. Existing databases and synergies with other applications
FLOUCA (Fish Landing Operational Utility for Catch Assessment) based on the generic software and standard statistical methodology available on the web by the FAO (ARTFIAH).

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
National Artisanal Fisheries Dependent Data Collection Program	2013-2014	Data collection	Pilot survey on fisheries dependent data collection in Lebanon, including training. Activities will contribute into the development of regionally consistent fisheries management plans among the Eastern Mediterranean countries through the monitoring of commercial fisheries and the initialization of fishery management capacity in Lebanon.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
Wide socio-economic survey	2013	Socio-economic data collection	Sample based country wide socio-economic survey was conducted in 2013 in collaboration with FAO EastMed Project. Data are still being analyzed.

C. Marine environment studies

Research/project title	Duration	Main topic	Description
PEGASO	2010-2014	ICZM	
	2011-2013	Environmental status	Evaluating coastal risk on the Chekka El Heri beach through the assessment of the physical oceanographic parameters.
	2013	MPAs	Marine Surveys to enhance the effective conservation of regionally important coastal and marine biodiversity features, through the creation of an ecologically coherent MPA network in the Mediterranean region.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received
Participation in EastMed FAO Project activities:

- Fishing Licensing System
- Catch assessment pilot study in collaboration with University of Balamand
- Feasibility study for a new fishing vessels design and/or new vessel building materials
- Pilot country-wide socio-economic survey

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Minister Decision 1154 on 9/12/2013 “General conditions for the protection of cetaceans”
- Minister Decision 1160 on 10/12/2013-“General conditions for the fishing of sharks”
- Minister Decision 1163 on 12/12/2013-“General conditions for the protection of seabirds”

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events
Information not available.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol
Information not available.

Section 10 - Proposals for future research programmes

- Promote and integrate fisheries research as part of Ecosystem Based Management
- Develop a sustainable national “information system” for artisanal fisheries in collaboration with the different research centers in the Lebanon and the region (East-Mediterranean Basin)
- Assess stocks of commercial fish species in Lebanon
- Identify and assess common stocks in the East-Mediterranean Basin
- Monitor invasive species in Lebanese waters and their population dynamics

Malta

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 15
B. Total landings: 2 357 tonnes (2013); 1 527 tonnes (2012)
C. Fleet: 1 040 vessels (31/12/2013); 2 989 vessels (31/12/12)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius	2012	high overfishing	12-16	Y	
Parapenaeus longirostris	2012	high overfishing	12-16	Y	
Mullus surmuletus	2012	high overfishing	15-16	Y	
Nephrops norvegicus	2012	sustainable exploitation	15-16	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Malta is at present developing a Fisheries Information System (FIS). The FIS under development will be an integrated system whereby the databases related to the fleet register, catch assessment survey, logbooks, biological sampling, biological surveys and economic surveys will be consolidated. All data submission obligations in connection with GFCM, EC and ICCAT will in the future be handled through the new FIS.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies
Malta collects data on catch and effort for each segment by species, by quarter and by geographical origin. Catch and effort figures are based on data reported in logbooks (for vessels over 10 m LOA) and by sampling the small-scale fishery (for vessels less than 10 m LOA) through an exhaustive sampling survey questionnaire, on sales notes from the official fish market and from direct sales data. The data collected is in line with the EU Data Collection Framework (DCF) EC 199/2008, EC 949/2008, EC 93/2010. In 2013 Malta submitted data collected within the framework of the DCF to several international bodies / for use by several projects:

i) Joint Research Centre (JRC) of the European Commission
ii) International Commission for the Conservation of Atlantic Tunas (ICCAT) through Task I and Task II forms.
iii) General Fisheries Commission for the Mediterranean (GFCM) including dolphin fish annual reporting form and Task I statistical matrix.
iv) FAO regional projects MedSudMed, CopeMed
v) EU horizontal framework project MAREA

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
MEDITS		Data collection	Fisheries-independent data for demersal resources.
MEDIAS		Data collection	Fisheries-independent data for pelagic resources.
MESMA		Spatial based approach	Monitoring and evaluating of spatially managed marine areas
CREAM		EAF	Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas.
GAP		Sensitive habitats	Bridging the gap between fisheries scientists and fishers - nursery and spawning ground of commercially important demersal species within the Malta FMZ were identified.
STOCKMED		Bibliographic review	Literature review conducted on *Octopus vulgaris, Eledone cirrhosa, Eledone moscata* and *Galeus melastomus* and compilation fishing grounds' maps of the Maltese trawling fleet.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
LIFE + BAĦAR	2013-?	Benthic habitats	Collection of data on the location of 4 habitats (*Posidonia* beds, sandbanks, reefs and submerged or partially submerged caves) within the 25 nm Malta FMZ under the Habitats Directive in order to protect them by creating NATURA 2000 sites.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

In 2013, Malta participated in two meetings held within the MedSudMed project. These include the 11th Coordination Committee Meeting (23-24 April 2013, Sliema, Malta) and the FAO-MedSudMed and CopeMed II Working Group on Demersal Fishery Resources (Gammarth, Tunisia, 23-27 September 2013).

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

- Restricted area between 'Ponta ta' l-Ahrax' and 'Dahlet ix-Xilep: (Notice to Mariners No 2 of 2010) The purpose of this environment protection measure is to protect the Yelkouan Shearwaters (Garnija) seabirds that breed on cliffs. Implementation of this measure is held between 1st February and 30th July every year, applicable 2 hours before sunset till 2 hours after sunrise.

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Efforts are being made to include the collection of this data through electronic logbooks.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Efforts are being made to include the collection of this data through electronic logbooks.

Section 10 - Proposals for future research programmes

Montenegro

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 18
B. Total landings: 623 tonnes (2012);
C. Fleet: 117 vessels (2013); 112 vessels (2012)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius		in high overfishing	18	Y	
Parapenaeus longirostris		in high overfishing	18	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Fisheries Information System (FIS). At present FIS is not fully operating, because of ongoing system updates.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
The software ATrIs (Adriamed Trawl Survey Information System), provided by the FAO AdriaMed project, was used for data input gathered during MEDITS campaigns and for processing.

C. Type of data collected, transmission to GFCM Secretariat and other international bodies
Vessel register; Logbook & landings declaration; Monthly report for vessels under 10m LOA; Licenses management sub-system; Common alarm system; VMS – Vessels over 10m LOA; In the programming fase are: Fishermen register; Electronic logbook; Sales notes; Bilogical and sampling data; GFCM Task 1 report.

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
MEDIAS		Biological sampling	Biomass estimation of small pelagic species in GSA 18 using DEPM and Acoustic methods.
MEDITS		Biological sampling	Biomass estimation of demersal resources.
HERD SEAMED	2012-2014	Fisheries development	Strengthening education, applied research and marine development in West-Balkan.
MORM-MONT	2012-2014	Fisheries development	Monitoring of coastal fisheries and fish fry composition along the Montenegrin coast, with the aim of conservation and sustainable management of marine fisheries.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
MAREA SEDAF	2013- ?	Socio-economic data	Improve knowledge of the main socio-economic aspects related to the most important fisheries in the Adriatic Sea.

C. Marine environment studies

Research/project title	Duration	Main topic	Description
CAMP		Coastal ecosystems	Coastal Area Management Programme
PPPOP			Special Plan for the Coastal Area of Montenegro

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Rulebook on determining the line where the water ceases to be steady salty in rivers flowing into the sea and defining the boundaries of fishing protected areas ('Official Gazette MNE' no 39/13)
- Rulebook on form of the permit, method of payment of fees, form, content and method of keeping the register of permits for mariculture ('Official Gazette MNE' no 39/13)
- Rulebook on the type of satellite monitoring system of fishing vessels and type of fishing vessels for which the system is established ('Official Gazette MNE' no 39/13)

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Katić MPA. Establishment of the MPA zones, along with protected land areas are of great importance for the diversity of plants, animals, and natural habitats represent an effective tool for providing permanent protection and wise use of natural resources. By 2015, “Katić” MPA will be set up and it will be considered as an operational model for the development of a national system of MPAs in Montenegro

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

No incidental catches of cetaceans have been reported.

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Currently being considered for integration of the legal acts.

Section 10 - Proposals for future research programmes

Morocco

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 03
B. Total landings: 35 937 tonnes (2012); 31 711 tonnes (2011)
C. Fleet: 3 437 vessels (2012); 3 403 vessels (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius	2012	in overexploitation and overfished	03	Y[3]	
Sardina plichardus	2012	fully exploited	03	Y[1]	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Le système statistique marocain est un système qui gère la collecte de données sur les pêcheries à travers trois établissements l'Office national des pêches (ONP), le Département des Pêches Maritimes (DPM) et l'Institut National de Recherche Halieutique (INRH)

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies
Les données transmises à la CGPM sont gérées de la manière suivante : Base de données Registre de Flottille ; Base de données des bateaux autorisés pour la pêche et ayant une taille supérieure à 15 m ; Base de données « Task 1 »

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
		Stock assessment	Évaluations des stocks des principales espèces
		Fish biology	Études des cycles de vie des espèces à haute valeur commerciale
			Études de l'interaction entre l'activité de pêche et son environnement
			Recherches sur la révision des tailles marchandes des principales espèces exploitées

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
		Bio-economy	Modélisation bioéconomique sur la pêcherie sardinière
		Small-scale fisheries	Analyse socioéconomique du secteur de la pêcherie artisanale
		Coastal fisheries	Etude sur la rentabilité économique de la pêche côtière

C. Marine environment studies

Research/project title	Duration	Main topic	Description
		Elasmobranchs	Etudes sur l'inventaire des espèces des Elasmobranches peuplant la méditerranée marocaine.
		Cetaceans	Etude des interactions entre les Cétacés et la pêche.
		MPAs, artificial reefs	Etude de l'impact de la mise en place de nouvelles mesures de gestion, telle que l'implantation des aires marines protégées, l'immersion des récifs artificiels et autres.
		Environmental status	État de la salubrité du milieu marin (études chimiques, accumulation des biotoxines dans les bivalves, études microbiologiques).
		Environmental parameters	Effet des facteurs environnementaux (principalement la salinité et la température) sur la biologie et le cycle de vie des espèces pélagiques et des espèces demersales à durée de vie courte (crevette rose du large).

[3] not validated by the GFCM Working Group

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Limitation de la taille des espèces pêchées dans les eaux marocaines;
- Limitation de l'effort de pêche : les investissements en matière de nouvelle construction navale ont été suspendus depuis 1992 (gel d'investissement) ;
- Le contrôle strict des activités de pêche de long de la chaîne de valeur et l'application d'une procédure de certification et traçabilité des captures depuis janvier 2010 ;
- La mise en place depuis octobre 2011 de système de suivi et de transmission de données par satellite (VMS) à bord des navires ayant un tonnage supérieur à 2 unités de jauge brute. (Décret n°2-09-674 du 17 mars 2010) ;
- Plan d'aménagement de la pêcherie crevettière (depuis 2012);
- Plan de gestion du thon rouge selon les recommandations ICCAT;
- Plan d'aménagement de l'espadon (Arrêté n°1666-12 du 17 avril 2012, et l'Arrêté n°1176-13 du 08 avril 2013) ;
- Plan d'aménagement des espèces littorales (algues, corail rouge, coquillages, etc) (Arrêté n°955-10 du 15 mai 2006) ;
- Plan d'aménagement du poulpe depuis juillet 2011;
- Projet de plan d'aménagement de la pêcherie des petits pélagiques prévus en 2014 ;
- Publication de la loi 19-07 interdisant les filets maillants dérivants et son texte d'application ;
- Plan de conservation des requins ;

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Species	N specimen	Weight (tonnes)	Day/month/year	Fleet segment	Gear	GSA	N Retained for sale	N discarded dead	N released alive
Galeorhinus galeus		6	2011			03			
Galeorhinus galeus		2	2012			03			
Other		87	2010			03			
Other		61	2011			03			
Other		177	2012			03			

Section 10 - Proposals for future research programmes

- L'identification et la cartographie des zones de ponte et de nourriceries des principales espèces exploitées.
- L'identification de toutes les espèces des Elasmobranches peuplant la GSA 03.
- L'étude de l'effet des changements climatiques sur l'écosystème marin et sur la biodiversité dans le GSA 03.
- L'étude de l'effet des facteurs environnementaux sur les cycles biologiques de toutes les espèces au niveau de la GSA 03.
- L'adoption de modèles intégrant l'effet des changements globaux et des facteurs environnementaux pour l'évaluation de l'état des stocks exploitées.

Romania

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 29
B. Total landings: 835 tonnes (2012); 568 tonnes (2011)
C. Fleet: 261 (2012); 488 (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
Fisheries data obtained in the different projects by National Institute for Marine Research and Development (NIMRD) are incorporated in database of institute. Reports and data are transmitted to Romanian NAFA in the frame of National Data Collection Program, NAFA/EC-DG Mare.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
PN 09320206			Reducing the impact of marine bio-resources exploitation by developing eco-efficient solutions.
PN II - Capacity, Module III		EAF	Investigation and applied studies of the ecosystem approach to fishery in the Ionian Sea (Greece) and Black Sea (Romania) Romania-Greece bilateral cooperation.
SRCSSMBSF			Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries.
CREAM		EAF	Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
FP7 EU MISIS		Environmental status	Environmental monitoring of the Black Sea Basin and a common European framework programme for the development of the Black Sea region.
PN 09320103			Influence of river contribution on the chemical composition and trophic status of Romanian transitional and coastal waters to joint implement the Water Framework Directives and Marine Strategy.
PN 09320202		Marine biodiversity	Characterization of the benthic and planktonic communities on the Romanian continental shelf.
RACE		Coastal environment	Radiation background of Black Sea coastal environment
MARCY		Algal blooms	Molecular approaches for rapid and quantitative detection of cyanobacteria and their toxins from coastal Black Sea.
ECOMAGIS		GIS tools	Implementation of a complex GIS for Ecosystem-based Management, through integrated monitoring and assessment of the biocoenosis status and its evolution trends in the fast changing environment.
ODEMM		Ecosystem-based management	Options for Delivering Ecosystem-based of marine management
COCONET FP7		MPAs, renewable	Towards networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind

Research/project title	Duration	Main topic	Description
		energy	energy potential.
PERSEUS FP7			Policy-oriented marine Environmental Research for the Southern European Seas.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

So far, FAO has not developed any Black Sea Regional Project.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

- Obtaining the updated information to expand the European ecological network Natura 2000 (Special Areas of Conservation) in the Romanian marine

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Species	N specimen	Day/month/year	Vessels' type	Gear	GSA or statistical grid	Main target species	N discarded dead	N released alive	N unknown
Phocoena phocoena	0	2012							
Delphinus delphis	0	2012							
Tursiops truncatus	0	2012							

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Species	Annex	N specimen	Weight (tonnes)	Day/month/year	Vessels' type	Gear	GSA	Retained for sale?	N discarded dead	N released alive
Squalus acanthias	III		20	2012			29	Y		

Section 10 - Proposals for future research programmes

- Distribution and abundance of the two main species in the Black Sea: turbot and dogfish.

Slovenia

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 17
B. Total landings: 238 tonnes (2013); 329 tonnes (2012)
C. Fleet: 170 vessels (01/01/2014); 175 vessels (01/01/2013)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Engraulis encrasicolus		in overexploitation and overfished	17	Y	
Sardina plichardus			17	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
InfoRib is the main system.

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects

C. Type of data collected, transmission to GFCM Secretariat and other international bodies
InfoRib is the centralized information system which contains all the relevant data on fisheries in Slovenia: Fleet vessel register, Logbooks, Fishing Permits, Socio-economic data, Reporting, Sampling, Technical indicators, Code lists First sale, Aquaculture, Processing Industry and Meetings Module. Biological Sampling Module is permanently stored in the Fisheries Research Institute database (BIOS).

D. Existing databases and synergies with other applications
InfoRib is interconnected with VMS data base and soon it will be interconnected also with ESR data. In the future the interconnection with the Aquaspec system, with the BIOS database and with the central node for fisheries data at the European Commission will be improved.

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
MEDITS		Biological sampling	Collection and management of data
MEDIAS		Biological sampling	Collection and management of data
SOLEMON			

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description
		Economy	Evaluation of the fishing sector
		Economy	Evaluation of the economic situation of the aquaculture sector
		Economy	Evaluation of the economic situation of the processing industry

C. Marine environment studies

Research/project title	Duration	Main topic	Description

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received
AdriaMed project:

- stock assessment
- cooperation in the framework of SOLEMON project

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea) (hereinafter: "Multiannual plan"):

- In line with the provisions of the "Multiannual plan", Slovenia prepared and sent to the GFCM secretariat, before the end of October 2013, its national Monitoring and control plan for its fisheries targeting small pelagic stocks. In addition, Slovenia submitted to the GFCM secretariat also a list of the vessels authorized to fish for small pelagic stocks that are registered in harbors located in GSA 17.

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

- Conduct a preliminary survey to determine the spatial and seasonal distribution of planktonic stages of European anchovy and sardine in the Slovenian seas. This would enable us to determine the appropriate number and position of sampling stations and the period in which to collect the samples for the DEPM. Addition of this data to the joint stock assessment would further improve the precision of the results.

Spain

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 01, 02, 05, 06, 07
B. Total landings: 59 703 tonnes (2012); 60 031 tonnes (2011)
C. Fleet: 2 843 vessels (31/12/2012); 2 972 vessels (31/12/2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?
Merluccius merluccius	2012	in high overfishing	01	Y	
Aristeus antennatus	2012	in high overfishing	05	Y	
M. merluccius	2012	in high overfishing	05	Y	
Mullus surmuletus	2012	in high overfishing	05	Y	
M. barbatus	2012	in high overfishing	05	Y	
Parapenaeus longirostris	2012	low overfishing	05	Y	
M. barbatus	2012	in high overfishing	06	Y	
P. longirostris	2012	high overfishing status	06	Y	
Merluccius merluccius	2012	high overfishing status	07	Y	
Mullus barbatus	2012	high overfishing status	07	Y	
Engraulis encrasicolus	2012	uncertain	01	Y	
Sardina pilchardus	2012	sustainably exploited	01	Y	
E. encrasicolus	2012	sustainably exploited	06	Y	
S. pilchardus	2012	overexploited and in overexploitation	06	Y	

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
C. Type of data collected, transmission to GFCM Secretariat and other international bodies
IEO collects length and biological data of main commercial species under the guidelines of the National Program supported by the EU for the collection and management of fisheries data in accordance with Community programmes (Reg. (EC) 199/2008). Data information is managed in the framework of the SIRENO database developed by the IEO. SIRENO moreover stores fish market information, observers on board information and research surveys data. Moreover, the General Subdirectorate for Statistics collects and processes the economic information on fisheries.
D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
MEDITS		Biological sampling	Collection and management of data
MEDIAS		Biological sampling	Collection and management of data
REMARAN		Management plans	Improve the knowledge of the status of the different stocks including aspects of the impact of the fishery in the benthic community in order to set up a management plan.
REMALA		Spatial based approach	Analysis of the adequateness of the Bay of Málaga (GSA01) for the creation of a fishing protected area, due to its importance as areas of reproduction, spawning, nursery and growth of several commercial species.

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
TROFOALBORAN		Pelagic ecosystem	Pelagic ecosystem trophic web dynamics influencing the early life stages of sardine and anchovy off their main nursery grounds in the Bays of Málaga and Almería.

Research/project title	Duration	Main topic	Description
	2011-2013	MPAs/Spill-over effects	Effects of Marine Protected Areas (MPAs) on exploited communities, species and artisanal fisheries have been continued, quantifying benefits of spill-over to adjacent fisheries and increased reproductive potential at regional level as a result the MPA protection.
Azimut CENIT		Renewable energy	Study the offshore wind farms OWF impacts on marine biota.
COCONET FP7		MPAs, renewable energy	Towards networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential.
INDEMARES	2009-2014	Sea habitats of special importance	Promote research, conservation and assessment of the sea and its habitats in order to comply with commitments regarding the Marine European Natura 2000 network and reinforce the application of international conventions on the sea (as OSPAR and Barcelona).

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

Regarding Red Coral, national regulation has been modified and adapted to the last GFCM Recommendations through Royal Decree 629/2013.

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

- For the assessment of marine resources much greater attention is needed in taking into ecological considerations for the implementation of ecosystem based approach in fisheries. Studies focusing on the impact of environmental changes (climatic variability, increase of gelatinous plankton, etc.) and on the variability of marine resources, as well as, on their effect on fishing catchability and fleet efficiency are recommended.

Tunisia

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 12, 13, 14
B. Total landings: 117 637 tonnes (2012); 109 160 tonnes (2011)
C. Fleet: 12 000 vessels

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
la collecte, l'archivage et l'élaboration des bases de données des statistiques de la pêche (production, effort, flottille) sont assurés par les services du Ministère de l'Agriculture, plus particulièrement la Direction Générale de la Pêche et de l'Aquaculture (DGPA).

B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
Depuis l'année dernière, la DGPA appuyée par la CopeMedII Projet a lancé une opération pilote de collecte et d'amélioration des données statistiques de la pêche artisanale.

C. Type of data collected, transmission to GFCM Secretariat and other international bodies

D. Existing databases and synergies with other applications

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description
		Stock assessment	Ressources benthiques exploitables des eaux tunisiennes : Evaluation des stocks et aménagement des pêcheries.
		Stock assessment	Ressources pélagiques exploitables : Evaluation des stocks et aménagement des pêcheries
		Gear selectivity	Amélioration de la sélectivité des engins de pêche
ECOSAFIM		EAF	Approche écosystémique comme outil d'aménagement

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
		Sea turtles	Monitoring du site de nidification des îles Kuriat qui a permis d'enrichir davantage la base des données relative aux paramètres de nidification. Un nouveau site de ponte de la tortue marine Caretta caretta a été découvert à la Chebba (côtes sud-est de la Tunisie) l'été 2013. Des rencontres de sensibilisation des pêcheurs ont été organisées dans les ports pour une bonne conservation des tortues marines. Des dépliants et livrets ont été édités dans le même cadre de conservation.
		Sea turtles	Etude de l'importance et de la répartition spatiotemporelle des échouages sur les côtes tunisiennes dans le cadre du réseau national d'échouage. Dans le cadre de ce réseau, des échantillons sont conservés pour les scientifiques. Ceux-ci ont servi en premier temps pour mener des études de génétique (caractérisation génétique des populations) et de parasitologie.
		Sharks taxonomy	Étude systématique (morphologique, anatomique, parasitologique et génétique) a mis en évidence la validité d'une pastenague *Dasyatis tortonesi* qui posait un problème de confusion avec une autre espèce du même genre *Dasyatis pastinaca.*
		Sharks biology	Délimitation des zones de nurseries pour quelques espèces de poissons cartilagineux
		Corals	Campagnes de prospections effectuées ont permis d'établir une

Research/project title	Duration	Main topic	Description
			première liste d'espèces du coralligène au nord de la Tunisie
		Seagrasses	Étude des herbiers de posidonie dans le gouvernorat de Mahdia a permis de décrire plusieurs types d'herbiers dont les plus répandus sont les herbiers de plaine, mais aussi les herbiers à statut particulier, les récifs frangeants et les micro-atolls dans la région de La Chebba.
		Climate change	Étude de la biodiversité de la faune ichthyologique a été entamée dans un contexte de changement climatique.
		Cetaceans	Recensement des échouages de cétacés.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

L'INSTM continue régulièrement ses activités de recherche et entretient une collaboration assez étroite avec les deux projets régionaux MedSudMed et CopeMedII.

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Fermeture au chalut sur la région Sud (GSA 14 Golfe de Gabès) pour un période de trois mois (1 juillet au 30 Septembre).

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Species	N specimen	Weight (tonnes)	Day/month/year	Fleet segment	Gear	GSA	N Retained for sale	N discarded dead	N released alive

Section 10 - Proposals for future research programmes

- L'identification et la cartographie des zones de ponte et de nourriceries des principales espèces exploitées.
- L'identification de toutes les espèces des Elasmobranches peuplant la GSA 03.
- L'étude de l'effet des changements climatiques sur l'écosystème marin et sur la biodiversité dans le GSA 03.
- L'étude de l'effet des facteurs environnementaux sur les cycles biologiques de toutes les espèces au niveau de la GSA 03.
- L'adoption de modèles intégrant l'effet des changements globaux et des facteurs environnementaux pour l'évaluation de l'état des stocks exploitées.

Turkey

Section 1 - Description of fisheries

A. Fishing grounds (GSAs): 28, 29, 22, 24
B. Total landings: 396 322 tonnes (2012); 477 658 tonnes (2011)
C. Fleet: 17 165 vessels (2011)

Section 2 - Status of stocks of priority species

Species/Stock	Ref. year	Stock status	GSA	Presented to GFCM WGs?	Presented to any other forum?

Section 3 - Status of statistics and information system

A. Description of the national system of fishery statistics and/or any improvement/change occurred
B. Indicate whether or not progress in activities related to the collection and processing of fishery statistics have been done with the assistance of FAO regional projects
C. Type of data collected, transmission to GFCM Secretariat and other international bodies
D. Existing databases and synergies with other applications

The Fisheries Information System (FIS), an integrated Web-based database, has been developed. FIS is subject to routine updates, comprises a combination of resources organized to collect, process, transmit, and disseminate fisheries relevant data.

Section 4 - Status of research in progress

A. Fisheries research with emphasis on management oriented assessment and GFCM priority species

Research/project title	Duration	Main topic	Description

B. Socio-economic studies of fishing communities and fishing sector

Research/project title	Duration	Main topic	Description

C. Marine environment studies

Research/project title	Duration	Main topic	Description
"Strengthening Protected Area Network of Turkey: Catalyzing Sustainability of Marine and Coastal Protected Areas"		MPAs	The project aims to facilitate expansion of the national system of marine and coastal protected areas, including fisheries protected areas, and improve their management effectiveness.

Section 5 - Involvement in activities of FAO regional projects

A. Description of activities carried out with FAO regional projects, results obtained and assistance received

Section 6 - Management measures

A. Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations including assessment of their effects

- Notification regulating commercial fisheries has been revised for 2012-2016 fishing season
- Minimum size restrictions have been enhanced for some species
- Prohibitions for use of some fishing gear and for some fishing zones have been introduced
- No fishing activity for turbot shall be permitted from 15 April to 15 June. The minimum landing size for turbot shall be 45 cm total length. The minimum legal mesh size for bottom-set nets used to catch turbot shall be 400 mm.

Section 7 - Environment protection measures

A. Description of recent activities in establishing protected areas (e.g. fishing reserves, MPAs, and other spatial restrictions)

Section 8 - Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area

A. By-catch events

Section 9 - Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area

A. Catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol

Section 10 - Proposals for future research programmes

- None

Appendix I(b)

Countries National Reports

(to be included in the published version of the report)

Albania

Algeria

Bulgaria

Croatia

Egypt

France

Greece

Italy

Lebanon

Malta

Montenegro

Morocco

Romania

Slovenia

Spain

Tunisia

Turkey