FAO Fisheries and Aquaculture Report No. 1042
FAO, Rapport sur les pêches et l'aquaculture n° 1042 **FIPI/R1042 (Bi)**

ISSN 2070-6987

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

Report of the fifteenth session of the

SCIENTIFIC ADVISORY COMMITTEE

Rome, 8–11 April 2013

Rapport de la quinzième session du

COMITÉ SCIENTIFIQUE CONSULTATIF

Rome, 8-11 avril 2013

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE
Rome, 2014

ISBN 978-92-5-008514-7 (print/version imprimée) E-ISBN 978-92-5-008515-4 (PDF)

PREPARATION OF THIS DOCUMENT

This is the final report approved by the participants in the fifteenth session of the Scientific Advisory Committee of the General Fisheries Commission for the Mediterranean held at FAO headquarters, Rome, Italy, from 8 to 11 April 2013.

PRÉPARATION DE CE DOCUMENT

Le présent document est le rapport final adopté par les participants de la quinzième session du Comité scientifique consultatif de la Commission générale des pêches pour la Méditerranée tenue au siège de la FAO, Rome, Italie, du 8 au 11 avril 2013.

FAO General Fisheries Commission for the Mediterranean/Commission générale des pêches pour la Méditerranée.
Report of the fifteenth session of the Scientific Advisory Committee. Rome, 8–11 April 2013/Rapport de la quinzième session du Comité scientifique consultatif. Rome, 8-11 avril 2013. *FAO Fisheries and Aquaculture Report*/FAO *Rapport sur les pêches et l'aquaculture.* No. 1042. Rome. 2014. 228 pp.

ABSTRACT

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its fifteenth session in Rome, from 8 to 11 April 2013. The session was attended by delegates from 20 Members of the GFCM as well as 12 observers and representatives of the FAO including regional projects. The Committee reviewed the issues addressed at the eight technical meetings, including the four sessions of its subcommittees, and at the workshops held during the 2012–2013 intersession. It examined actions carried out within the first phase of the GFCM Framework Programme (FWP). The main issues addressed included: i) scientific advice on the status of stocks, ii) a draft proposal for a regional management plan of red coral (RMP-RC), iii) the conservation status of species of special interest; iv) data collection schemes, including data compliance, and ongoing activities to prepare a GFCM data collection reference framework and v) research programmes among GFCM Members. The Committee also discussed technical issues in connection with the use of area-based measures, IUU fishing, VMS data and management related to bycatch and discards of commercial and non-commercial species. Furthermore, it endorsed the organization of a Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea by the end of 2013. Priority actions in the Black Sea were examined and the Committee welcomed the creation of a Mediterranean and Black Sea database of experts and institutions as well as of a Black Sea subregional group on stock assessment. The Committee endorsed a revised standard format for national reports and a proposal for a biennial report on the status of fisheries in the GFCM area. The Committee was informed about progress achieved within the process of amendment of the GFCM legal and institutional framework and welcomed the adoption of a subregional approach, in particular with respect to multiannual management plans. To facilitate this approach, the Committee expressed its support to the creation of subregional working groups and welcomed the proposal to establish a support mechanism to the decision-making process. Finally, it agreed upon its work plan for 2012–2013, endorsed the nomination of coordinators for its subcommittees and decided to submit the issue of the election of its Bureau to the next GFCM session.

RÉSUMÉ

Le Comité scientifique consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa quinzième session à Rome, du 8 au 11 avril 2013. Ont participé à cette session les délégués de 20 Membres de la CGPM, ainsi que 12 observateurs et des représentants de la FAO y compris ses projets régionaux. Le Comité a passé en revue les questions abordées lors de huit réunions techniques, y compris les sessions des quatre sous-comités, et au cours d'ateliers tenus pendant la période intersessions 2012-2013. Il a en outre examiné les actions menées durant la première phase du programme-cadre de la CGPM (FWP). Les principaux aspects abordés concernaient notamment: i) les avis scientifiques sur l'état des stocks; ii) une proposition de plan de gestion régional du corail rouge (RMP-RC); iii) l'état de conservation d'espèces présentant un intérêt particulier; iv) les systèmes de collecte de données, notamment les aspects relatifs à la conformité, et les activités préparatoires au cadre de référence de la CGPM pour la collecte de données et v) les programmes de recherche au sein des membres de la CGPM. Le Comité s'est en outre penché sur des questions techniques relatives à l'utilisation de mesures spatiales, la pêche INDNR, les données de SSN et la gestion des captures accessoires et rejets d'espèces commerciales et non commerciales. Par ailleurs, il a approuvé l'organisation d'un symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire d'ici fin 2013. Le Comité a examiné plusieurs actions prioritaires en mer Noire et s'est félicité de la création d'une base de données d'experts et d'institutions en Méditerranée et en mer Noire ainsi que d'un groupe sous-régional sur les évaluations de stocks en mer Noire. Il a approuvé le modèle révisé pour les rapports nationaux ainsi que celui de rapport biennal sur l'état des pêches dans la zone de la CGPM. Le Comité a été renseigné sur les avancées du processus d'amendement du cadre juridique et institutionnel de la CGPM et s'est félicité de l'adoption d'une approche sous-régionale, notamment pour ce qui est de la mise en place de plans de gestion pluriannuels. Afin de faciliter sa mise en œuvre, le Comité a manifesté son soutien à la création de groupes de travail sous-régionaux et a salué la proposition d'établir un mécanisme d'appui au processus décisionnel. Enfin, il a convenu de son programme de travail pour 2012-2013, approuvé la nomination des coordonnateurs de ses sous-comités et décidé de soumettre la question de l'élection de son Bureau à la prochaine session de la CGPM.

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OPENING AND ARRANGEMENTS FOR THE SESSION

1. The fifteenth session of the Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) was held at FAO headquarters, Rome, Italy, from 8 to 11 April 2013. The session was attended by delegates from 20 Contracting Parties, 12 observers, representatives of the FAO regional projects and the GFCM Secretariat. The list of participants is attached as Appendix B.

2. Mr Árni Mathiesen, Assistant Director-General of the FAO Fisheries Department, opened the meeting and greeted participants on behalf of the FAO Director General, Mr José Graziano Da Silva. After expressing his satisfaction for the good level of attendance to the session, he informed the Committee about the ongoing reform of bodies established under Article XIV of the FAO Constitution. He expressed his hope that this reform would enable GFCM to promote the sustainable management of fisheries in its competence area. Mr Mathiesen also noted that there were several issues tackled both by the FAO Fisheries Department (FI) and GFCM which could be jointly developed, mentioning especially selected activities within the GFCM Framework Programme (FWP) such as data collection and the first Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea (Malta, November 2013). In the latter respect, he confirmed the willingness of his department to collaborate with the GFCM on the implementation of the FAO International guidelines on securing sustainable small-scale fisheries.

3. Mr Abdellah Srour, GFCM Executive Secretary, addressed the participants on behalf of GFCM and its Chairperson, Mr Stefano Cataudella, and underlined the critical role that SAC played in providing the Commission with scientific advice. Referring to the ongoing amendment process of the GFCM Agreement and its associated rules, he recalled the recommendations made by the Task Force for the modernization of the GFCM legal and institutional framework (GFCM Task Force) to the thirty-sixth session of the Commission (Morocco, May 2012) proposing the adoption by SAC of a subregional approach to fisheries management in order to tackle issues such as strengthening data collection systems and implementing multiannual management plans. The Executive Secretary informed about progress in the implementation of the FWP and acknowledged the financial contribution made by some GFCM Members and the support provided by FAO regional projects.

4. The GFCM Chairperson, after mentioning the complexity inherent to the management of fisheries in the GFCM area, encouraged GFCM Members to guarantee the independence of scientific research, which is instrumental to such management.

ADOPTION OF THE AGENDA

5. After introducing participants and observers, Mr Henri Farrugio, SAC Chairperson, gave the floor to the Executive Secretary who informed the meeting about organizational arrangements.

6. The delegate of Palestine expressed gratitude for participating in the session and for the efforts promoted by GFCM to develop the fisheries sector in the Mediterranean Sea.

7. The agenda, as adopted by SAC, is attached as Appendix A and the list of documents as Appendix C.

INTERSESSIONAL ACTIVITIES

Review of the recommendations made at the thirty-sixth session of GFCM concerning the management of fisheries

8. The GFCM Executive Secretary outlined the provisions in the recommendations adopted at the thirty-sixth session of the Commission, namely: i) Recommendation GFCM/36/2012/1 on the

exploitation of red coral; ii) Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans and iii) Recommendation GFCM/36/2012/3 on fisheries management measures for sharks and rays. He also recalled the Guidelines on multiannual management plans and pending decisions (i.e. on turbot and conservation of cetaceans in the Black Sea and on the management of fishing capacity) due to be reexamined at the thirty-seventh session of the Commission (Croatia, May 2013).

Overview of SAC achievements during the intersession

9. On the basis of document GFCM:SAC15/2013/2, the SAC Chairperson presented the activities undertaken during the intersession. He informed delegates that eight meetings had been convened, including those of the four subcommittees. He also mentioned that several workshops had taken place, some of them within the FWP. The Chairperson acknowledged that the work done by SAC during the intersession benefited from cooperation with several party organizations, thanks to the memoranda of understanding (MoU) in force.

10. Concerning the four subcommittees, the Chairperson first updated SAC on the Subcommittee on Marine Environment and Ecosystems (SCMEE), which addressed specific issues within the framework of two technical workshops (elasmobranchs age reading and selectivity assessment) and reviewed temporary operational objectives for a draft regional management plan for red coral (RMP-RC).

11. In relation to the work carried out by the Subcommittee on Statistics and Information (SCSI), the Chairperson highlighted improvements made to facilitate information and data flows between GFCM Members and the GFCM Secretariat and to enhance data compliance. He underlined the efforts deployed for the establishment of the first GFCM data collection reference framework (DCRF) and of the new GFCM Extranet based on SharePoint.

12. The Chairperson then informed SAC that the Subcommittee on Economic and Social Sciences (SCESS) focused on the review of selected case studies by the FAO regional projects on the socio-economic analysis of fisheries and on the organization of the first Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea.

13. Lastly, with regards to the Subcommittee on Stock Assessment (SCSA), the Chairperson reported that SCSA had carried out 29 assessments on demersal stocks, 8 of which on stocks straddling in more than one geographical subarea (GSA). He expressed concern for the status of these stocks because all of them were found to be subject to overfishing. As for small pelagic stocks, he recalled the outcomes of the 12 stock assessments performed and expressed similar concerns for those stocks in overfishing status.

Specific action in the Black Sea

14. Mr Simion Nicolaev, coordinator of the Working Group on the Black Sea (WGBS), presented the main activities carried out by GFCM in the Black Sea. He underscored that national focal points from all six riparian states were involved in these activities, including in connection with the Working Groups on Small Pelagic and Demersal Stock Assessment (Croatia, November 2012) and the Workshop on IUU fishing in the Black Sea (Turkey, February 2013).

15. The coordinator welcomed the creation of the Mediterranean and Black Sea database of experts and institutions established by the GFCM Secretariat. In his view, this database could constitute an opportunity to build momentum within GFCM on the expertise of several ongoing fisheries projects in the Black Sea (i.e. ComFish, EU/CREAM, CoCoNet, etc.) and to consolidate cooperation with the Advisory Group of the Black Sea Commission.

16. The Committee noted that the work done by GFCM in relation to the Black Sea had become fully incorporated in the activities of the Commission.

Research activities by Member Countries

17. Ms Pilar Hernández, from the GFCM Secretariat, presented a synthesis of the information contained in 20 national reports received by the GFCM Secretariat (Appendix F(b)). She put forth the following: (i) the overview of changes in fleet size and production among GFCM Members; (ii) the increasing number of national stock assessments performed by GFCM Members, which regrettably were not always brought to the GFCM working groups on stock assessments; (iii) the remarkable progress made in carrying out socio-economic studies as well as sample-based catch effort and biological surveys, including with the support of FAO regional projects; (iv) the lack of information on bycatch of sharks, rays and cetaceans and on research activities on red coral that should have been submitted according to relevant GFCM recommendations.

18. The Committee expressed appreciation to the GFCM Secretariat for the very detailed presentation of national reports. It advocated that the results of analyses and research activities outlined in the reports could be beneficial to the subcommittees when identifying work plan priorities to be submitted to SAC. Moreover, the Committee was invited to provide comments regarding the general practice of transmitting national reports, including on the standard format.

19. It was clarified that national reports were meant to provide scientific information produced during the intersession by GFCM Members' research groups and to make it available to GFCM. It was recalled that the template had been agreed at the twenty-fifth session of the Commission and included a specific section whereby Members should submit information on the effects of GFCM decisions, when implemented.

20. After an extensive discussion on the structure of the national reports, and taking into consideration comments made by several delegations, the Committee decided to adopt a revised version of their standard format, as reproduced in Appendix D. It was specified that the amended format would not have a page limit to be abode by.

21. The Committee further endorsed a proposal by the subcommittees concerning the elaboration of a biennial report on the status of fisheries in the GFCM competence area and invited the Secretariat to prepare and submit a draft scheme of this report for consideration and possible adoption by the Commission.

Major activities and initiatives of the FAO regional projects

22. Mr Enrico Arneri, FAO AdriaMed and MedSudMed coordinator, presented the activities carried out by both projects which had been recently reviewed by an FAO independent evaluation that had formulated recommendations on their future role.

23. In relation to AdriaMed, the ongoing cooperation with SAC on stock assessments and research programmes on demersal and small pelagic fisheries resources were pointed out. These programmes had been supported by AdriaMed through various initiatives related to the FWP, and actions on coordinated fisheries management in the Adriatic Sea were reported.

24. Concerning MedSudMed, the outcomes of meetings on demersal fisheries held at subregional level were summed up. Joint stock assessments and research programmes had been supported providing technical background to contribute to progress towards a common view on issues related to demersal fisheries management and a scientific basis to help in the harmonization of management measures. For small pelagic fisheries resources, MedSudMed promoted discussion and sharing of national fisheries data.

25. Mr Juan Camiñas, CopeMed II coordinator, then explained how national capacity in the field of statistics had been strengthened. He observed that CopeMed II had continued to provide support to national experts in many respects, as capacity-building and regional cooperation remained priority

issues. Specific attention was devoted to fisheries research activities to support management, including in relation to small pelagic and demersal shared or presumed shared stocks. The coordinator underlined that the work on these stocks was consistent with the priorities identified by GFCM and that the results had been presented to the GFCM Stock Assessment Working Groups (Croatia, November 2012).

26. Ms Constantina Riga, EastMed coordinator, illustrated progress made by this regional project referring in particular to: i) a feasibility study for new small-scale fishing vessel design and vessel materials; ii) experimental trials for fishing techniques; iii) the strengthening of information systems; iv) the development of selected fisheries; v) training of inspectors; vi) data collection analysis and vii) scientific research. Close cooperation with GFCM was envisaged through the establishment of a regional database of national legal frameworks and under various activities in the FWP. The coordinator also referred to common activities among FAO regional projects ensuring cooperation for a better use of financial and human resources and underlined the need to guarantee institutional coordination with GFCM.

27. The EastMed coordinator briefed SAC on the MedLME project on "Strategic partnership for the Mediterranean large marine ecosystem" implemented by FAO.

28. The Committee acknowledged the extensive work carried out by the FAO regional projects and the valuable scientific contributions they provided. The delegates of Croatia, Egypt, Lebanon, Libya, Morocco and Tunisia reiterated that their continuation was important in light of the excellent work done so far.

29. The delegate of Romania motioned that, considering the positive outcomes of the projects for the Mediterranean Sea, a similar initiative should be foreseen to support the WGBS. He indicated that his country was willing to discuss this matter with the GFCM Executive Secretary.

30. The French delegate underlined the relevance of regional programmes to further progress in advice to support fisheries management at the subregional level. In this connection, considering the importance attached by the GFCM Task Force last year to a subregional approach to fisheries, ongoing efforts to establish management plans for small pelagics in the Adriatic Sea deserved the attention of the Commission and could inspire new FAO regional projects. In order to reach a level playing field in fisheries management, it was suggested to consider strengthening financial support, including through extrabudgetary contributions.

31. The delegate of the European Union (EU) – while noting the impact of the current economic crisis – pointed to the importance of maintaining the FAO regional projects as long as possible. He stated that, although EU contributions to the projects had increased, they would remain on a yearly basis and subject to a result-based justification. He hence encouraged the FAO regional projects to move towards a more innovative work approach.

32. The Executive Secretary explained that, given the importance of the FAO regional projects, it would be appropriate to take advantage of the ongoing reform of GFCM to guarantee their stability and sustainability, thus avoiding that a lack of funding would compromise their work. While recalling that the FWP had never been meant to replace the FAO regional projects but rather to underpin them, the Committee agreed to give mandate to the GFCM Secretariat to work closely with the regional projects, including through a specific meeting with FAO aimed at considering the strengthening of their institutional nature.

33. Mr Issam Krouma, invited EastMed expert from Syria, thanked the FAO, GFCM and the EastMed project for the kind invitation and expressed his high appreciation to the SAC intersessional activities. He highlighted Syria's technical capability of pacing with future SAC activities and expressed hopes for its future participation.

FORMULATION OF ADVICE IN THE FIELD OF FISHERY MANAGEMENT AND RESEARCH

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

34. Mr Nicola Ferri, from the GFCM Secretariat, presented the conclusions and recommendations of SCESS on the basis of documents GFCM:SAC15/2013/2 and GFCM:SAC15/2013/Inf.8. He noted that, compared to previous years, SCESS enjoyed a high level of participation and many presentations had been delivered. He explained that discussions focused on case studies on socio-economic aspects, small-scale/artisanal fisheries, recreational fisheries and socio-economic variables. He recalled that SCESS had recommended the creation of three ad hoc working groups (on small scale/artisanal fisheries, on recreational fisheries and on a common methodology for socio-economic analysis for improving fisheries management advice).

35. The Committee acknowledged the significant progress made by SCESS during the intersession highlighting the interest drawn by the topics it addressed. Nonetheless, it was recommended that SCESS should limit itself to a maximum of two or three topics in the future.

36. The delegate of Tunisia proposed that SCESS should focus on technical studies on socio-economic sciences to support fisheries management and technical aspects related to the marketing of fishery products, whereas the delegate of Egypt welcomed the proposal to establish a working group to review socio-economic variables within Task 1.3.

37. With regard to artisanal fisheries, caution was expressed on the concept of co-management which could be less developed in a number of subregions. The Executive Secretary specified that co-management was one component of the FWP and that future work on this issue should be carried out consistently with this programme. Moreover, he clarified that the term “artisanal fisheries” was intended as “small-scale” fisheries and referred delegates to document GFCM:SAC15/2013/Inf.21 on the first Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea.

38. Given the conspicuous amount of recommendations proposed by SCESS, incorporating socio-economic data in bio-economic models to support subregional management plans and implementing the FAO International Guidelines on Sustainable Small-Scale Fisheries in collaboration with the FAO Fisheries Department were regarded as priority issues. On socio-economic data, it was noted that the problem would be their submission and that SCESS should hence suggest means to facilitate such task.

39. In light of the discussions held, it was agreed to draw up a list of priorities to be validated by SAC and submitted to the Commission for adoption at its thirty-seventh session. For the sake of facilitating the review of the work plan, this proposal would elaborate suggestions made by all subcommittees and group them under four types of activities: i) under the regular programme; ii) under the FWP; iii) under the purview of FAO regional projects and iv) to be undertaken at national level through academia and institutions.

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

40. Mr Federico Álvarez, coordinator of SCMEE, presented the conclusions and recommendations of the subcommittee on the basis of documents GFCM:SAC15/2013/2 and GFCM:SAC15/2013/Inf.6. He described in particular those focusing on: i) continuing research work towards the conservation of elasmobranchs; ii) establishing a strategy to facilitate exchange of information on selectivity and fishing technologies issues; iii) analysing mitigation options to reduce bycatch of sea turtles and seabirds; iv) deepening knowledge on vulnerable ecosystems and

identification of protected areas; v) monitoring alien species and vi) preparation and review of the RMP-RC (document GFCM:SAC15/2013/Inf.22).

41. During the discussions, the Lebanese delegate drew attention on new hydrocarbon drills in the eastern Mediterranean and urged SAC to assess the impact of those activities with potential negative impacts on vulnerable ecosystems. The delegate from Cyprus informed that the effects of such explorations were being assessed in his country through strategic impact assessment.

42. SAC proposed that SCMEE should further its review of commercial activities related to the exploitation of puffer fish not linked to human consumption. As some invasive species were becoming commercial, not being toxic, they could be considered in stock assessment related work.

43. Regarding the RMP-RC, the delegate of the World Conservation Trust (IWMC) suggested that SAC should undertake a socio-economic analysis of the exploitation of red coral as it was indicated in part 2 of the RMP-RC. He also proposed to introduce components related to the adaptive character of the plan (for which reference was made to the "Sardinia model") as they could contain useful indications, and called for the inclusion of medium-term research plans for red coral in the relevant sections of the RMP-RC.

44. The Committee was advised to add a new section on post-landing actions which would include a traceability mechanism to monitor potential exports of raw colonies outside the GFCM area. SCMEE was called to advise on deadlines for the progressive implementation of the RMP-RC, bearing in mind that a time limit for GFCM Members to adopt national management plans based on the RMP-RC should be set. For this purpose, the Committee strongly recommended that wide consultations at national level with all concerned stakeholders be launched before the next annual session of the Commission.

45. Regarding the issue of fisheries restricted areas (FRAs), the Committee was reminded of the GFCM pending recommendation presented at the thirty-fifth session of the Commission (FAO headquarters, May 2011). In connection with the current status of the 2010 FRA proposal in the Balearic seamounts, the delegate of Spain explained that consultations had been held with different stakeholders and that a proposal to protect part of the area was being prepared and, if approved, would be issued under a ministerial decree.

46. The representative of Oceana welcomed this proposal although, in her view, Spain should make sure to encompass considerations relating to the application of the ecosystems approach and the FAO Guidelines on Deep Sea Fisheries. This would allow to protect both the upper part of the seamounts in the proposed FRA and the existing deep vulnerable marine ecosystems. Spain would endeavour to finalize the dossier ahead of next session of SCMEE so that it could be possible for participants to duly consider it.

47. The representative of the International Union for Conservation of Nature and Natural Resources (IUCN) informed the Committee that, in order to improve knowledge on protected areas in waters under national jurisdiction, his organization had prepared a set of maps which could be helpful in particular for the identification of such areas and for the possible establishment of FRAs. In this connection, he made reference to the ongoing cooperation with Lebanon whose national strategy would intend to consider the establishment of FRAs in waters under national jurisdiction. It was noted that IUCN was undertaking with Morocco similar work aimed at establishing two protected areas for fisheries in the Mediterranean Sea. It was recommended that Morocco present this initiative at the next session of SCMEE.

48. In light of the information on protected areas and deep sea habitats that were under compilation by several organizations, it was suggested to include a point in the agenda of the next SCMEE meeting to assess its potential contribution to the work of SAC in relation to FRAs.

49. Acting on a proposal by Oceana, the Committee recalled that action should be taken on the 2012 Recommendation to collect ecological and biological information on seamounts (GFCM:SAC15/2013/Inf.4).

50. The French delegate informed the Committee about the recent establishment of an exclusive economic zone (EEZ) in the Mediterranean. As a result, the Gulf of Lion would be encompassed in this area and this would allow for more effective actions to implement and control the FRA of the Gulf of Lion.

51. The delegate of Libya urged the Committee to take into consideration the establishment of protected areas only after studies had been conducted and biological, social and economic data had been collected. He reported that similar studies had been undertaken in Libya but they had not been submitted to GFCM. He also stressed the need for training on the subject.

52. The Committee expressed its support to the launching of a specific action to collect relevant data and information on marine protected areas (MPAs) at the national level, including on efforts and strategies for their management. To this end, the Committee suggested to proceed by circulating a questionnaire. This work could also benefit from the close cooperation with relevant partners (Oceana, MedPAN, UNEP-MAP, etc.) that could facilitate progress in this field.

53. The representative of the Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranenan Sea and Contiguous Atlantic Area (ACCOBAMS) reported about the launching of a project on interactions between endangered species and fishing activities including bycatch of cetaceans, sea turtles and seabirds as well as depredation. Consultations had been already carried out with donors, which had showed an interest in focusing on the western Mediterranean on the basis of a multi-species approach. She proposed that, in the future, a similar project be launched for the Black Sea. It was recalled that there were already projects of this kind operating in the Black Sea.

54. The delegate of Morocco expressed satisfaction for this initiative and manifested the intent of his country to be directly involved, in light of the interest drawn by issues of bycatch and depredation.

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

55. Mr Fabio Fiorentino, SCSA coordinator, presented the conclusions of the subcommittee on the basis of documents GFCM:SAC15/2013/2 and GFCM:SAC15/2013/Inf.9. He noted that for demersal species, 22 stocks out of the 29 assessed were in overfishing status, one was uncertain and the rest preliminary. As for small pelagics, the working group assessed 12 stocks, 5 assessments being considered as preliminary, the rest being either classified as sustainable or fully exploited (5), in overfishing (1) or collapsed (1).

56. The coordinator then summarized the general recommendations and scientific advice formulated by SCSA, including in view of future assessments. For demersal species: i) to identify a common set of biological parameters at sub-regional level; ii) to identify adequate limit and precautionary reference points; iii) to justify the use of vessel monitoring system (VMS) for stock assessments; iv) to carry out research on lessepsian species and v) to use common reference points for stocks of the same species with similar productivity and exploitation rates. For small pelagics, it was advised to revise the conceptual definition of limit biomass reference points, including *inter alia* the ecosystem role of small pelagic fish in the ecosystem. For all species the recommendations and advice were as follows: i) to review terminology and scientific contents of assessments and set up an online review group; ii) to make use of standardized criteria for the classification of advice; iii) to review and define targets, limits and precautionary reference points; iv) to give preference to biomass reference points estimated within analytical formal stock assessments in contrast to those obtained by empirical means; v) to increase the number of stocks with defined reference points and the number of reference points used; vi) to revise stock assessment forms, standardize and categorize assessments; vii) to elaborate a regular report on the status of Mediterranean and Black Sea fisheries and viii) to carry out

research on genetic, genomic and other methods to assist in stock unit identification, migration patterns and exchange rates between meta-populations. Regarding the identification of stock boundaries, the coordinator mentioned the UE funded project StockMed aimed at the recognition of stock units following a multi-disciplinary approach.

57. It was noted that the large percentage of stocks in overfishing called for an urgent reduction of fishing mortality. The importance of VMS in implementing a spatial management approach to fisheries was underlined.

58. As for alien species, the Committee noted the impact of both exploited and toxic ones (e.g. puffer fish) and urged for the development of adequate management plans.

59. The Committee expressed its appreciation of the excellent work carried out and acknowledged the impressive progress made by SCSA during the intersession in assessing the status of stocks and providing scientific advice. The increasing number of stocks assessed and the quality of assessments were appraised.

60. The Secretariat pointed out that, on the basis of the GFCM Guidelines on subregional multiannual management plans, a reduction of fishing mortality for those stocks considered either overfished or in overfishing should be directly recommended for those fisheries.

61. The delegate of Tunisia emphasized the importance of scientific advice for a sustainable management of fisheries. He urged to convert the generic recommendation of reducing fishing mortality into concrete actions such as improving fishing gear selectivity, which could reduce overfishing.

62. On the basis of discussions held on shared stocks assumptions in stock assessments, the delegates of France and Spain, together with those of Morocco, Algeria and Tunisia, underlined the need of implementing measures for the identification of stock units. They considered, where possible, that cooperation should be strengthened in the western Mediterranean basin to implement scientific actions (genetics, morphometric studies, spawning and juvenile feeding grounds, hydrodynamics, etc.) towards objectives related to the identification of stock distribution and boundaries. The Committee proposed to organize a subregional meeting to follow up on this issue within the framework of CopeMed II and with the potential participation of other partners.

63. The delegate of Italy underscored that in view of the establishment of multiannual management plans, it would be necessary to base assessments not only on GSAs but also on the real extension of the boundaries of stocks. This would imply that a step forward be made to ensure that management would go in this direction.

64. The delegate of France expressed reservations on the use of the term “collapsed” to describe the situation of the stock of sardine in GSA 07. Small pelagic fish were known to largely fluctuate in most ecosystems, and he added that current fishing pressure on the stock was minimal. Moreover, although in 2010 and 2011 the biomass had been at its lowest in the historical series, a first sign of recovery had appeared in 2012 for both total biomass and spawning stock biomass. She agreed with the Working Group on Small Pelagics that this sign should be confirmed in the next years and that, until then, fishing pressure on this already weakened stock should be kept to a minimum. She believed however that the requisite of a minimal fishing pressure was already met. These issues could be overseen through a regional management plan for the resources in the area.

65. The delegate of Tunisia invited SCSA to include environmental factors in the assessment of small pelagic stocks.

66. On puffer fish (*Lagocephalus sceleratus*), the delegate of Egypt referred that scientists had concluded that, based on biological studies carried out in the Red Sea, the toxicity of this fish

increased with its maturity, especially during spawning periods, and juvenile individuals were not toxic. Also, she mentioned that higher catches of puffer fish were correlated to a decrease of catches of octopus, which they preyed on, and could be an indication of an effect of puffer fish on the ecosystem food web. A proposal to continue harvesting puffer fish and set some length-specific selectivity measures was made.

67. The EastMed Coordinator informed about initiatives related to alien species. She informed that a study was being undertaken on the socio-economic impacts of puffer fish with focus on its effects on the octopus fisheries in Cyprus. She also advised to deal with alien non-toxic species as with the rest of other commercial (indigenous) species.

68. The delegate of Turkey recalled recent technical measures adopted at the national level for the 2012–2016 period. With regard to turbot, she explained that minimum landing size would be 45 cm (total length) and that no fishing activity for turbot would be permitted from 15 April to 15 June. The minimum legal mesh size of nets used to catch turbot should be 400 mm. However, it was advocated that all common technical measures that would have to be applied in the Black Sea should be applied by all the Black Sea riparian states.

69. The Committee made the following considerations: i) in relation to strategies to achieve the reduction of fishing mortality (e.g. seasonal closures, selectivity patterns, etc.), these could be incorporated in a subregional multiannual management plan; ii) in relation to the identification of stock units throughout the GFCM area, this could be initially approached by a preliminary analysis of the abundance distribution and physical breaks (e.g. bottom, oceanography), providing a basic understanding of potential stock boundaries; iii) in relation to the definition of reference points, efforts should be made to have a clear definition of reference points in as many stocks as possible in order to provide clear advice on stock status and iv) in relation to the stock status of sardine in GSA 07, the advice should clearly indicate that the stock is under some environmental stress and that fishing effort should be minimized to allow for the stock to recover.

70. In light of the worrying situation of most demersal stocks in the GFCM area, and with a view to paving the way for the establishment of relevant multiannual management plans, the Committee pointed out that actions should be taken to: i) reduce fishing mortality for demersal species and ii) improve selectivity patterns of demersal fisheries.

71. Upon a question raised by the EU delegate, Romania and Bulgaria provided information on turbot fisheries in the Black Sea, which were under the total admissible catch scheme of the EU, also regulating specific gillnets. It was added that Romania and Bulgaria had already adopted a 400 mm mesh size and 45 cm minimum landing size regulation for this fishery. Participants were also informed that, in 2013, Romania had launched a project to improve knowledge on spiny dogfish.

72. The Secretariat informed that, for the first time, a specific working group would be organized in 2013 to assess Black Sea stocks and that it would be preceded by practical training sessions.

73. In relation to the Black Sea Assessment Working Group, the EU delegate informed that all efforts would be deployed to make the best possible information available to this group and to any other forum dealing with the assessment of those stocks.

74. The FAO regional projects confirmed their technical support to the issue of multiannual management plans and expressed their willingness to assist the GFCM Members in relevant steps of the process, starting from the joint assessment of shared stocks to studies on fishing gears, socio-economic and bio-economic modeling, etc.

75. In relation with the functioning of working groups and subcommittees, the Committee discussed about options to ensure more efficiency and optimize means and, in this sense, it suggested holding the next meeting of the working groups back-to-back with the subcommittee meetings.

76. The complete list of scientific advice on the status of Mediterranean and Black Sea stocks as reviewed by SAC is provided in Appendix E.

77. The delegates of Oceana and WWF expressed concern about the dramatic results of stock assessments, since the F levels shown were truly alarming. Given the situation, they considered that it was important to accelerate the process of developing management plans to integrate all the measures mentioned during the meeting, so that they could be implemented as soon as possible. However, since such plans would not be launched immediately, both organizations called for urgent actions to develop the current recommendations of the subcommittee.

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

78. Mr Federico De Rossi, from the GFCM Secretariat, presented the conclusions and recommendations of SCSI on the basis of documents GFCM:SAC15/2013/2 and GFCM:SAC15/2013/Inf.6. He highlighted in particular the progress made with respect to: i) data collection, submission status and information systems; ii) fishing vessels-related data (vessel records database, information system and statistics); iii) data reporting problems (vessel records and Task 1); iv) enhancement of communications and IT tools (including the new GFCM website currently under construction); v) VMS and cooperation activities and vi) collaboration with FAO on the global record.

79. The Secretariat further reported that SCSI had suggested for EU Member States to establish transmission from the EU fleet register system to the GFCM Secretariat and to promote the continuation of bilateral discussions to address specificities related to data submission. In light of the first DCRF under definition, SCSI suggested to revise the periodicity of socio-economic data collected under Task 1.3 and to review the optional/mandatory criteria of fleet data requirements.

80. The Committee conveyed its appreciation of the work done by SCSI. The Chairperson noted the partial compliance of GFCM Members in submitting the requested data although these seemed to be available at the national level.

81. The delegate of Morocco sought clarifications on the problems faced by GFCM Members in submitting Task 1 data. In light of the revision of the DCRF, he recalled that SCESS had stressed the importance of involving experts from all subcommittees in the meetings foreseen within the FWP in order to ensure that all data were encompassed.

82. The GFCM Secretariat informed the Committee that the outcomes of the first two subregional workshops on fisheries data collection (Croatia, March 2013 and Italy, March 2013) were available as meeting documents GFCM:SAC15/2013/Inf.17 and GFCM:SAC15/2013/Inf.18.

83. The delegate from Egypt underscored the need to prompt GFCM Members to meet their obligations relating to data submission.

84. The Committee reiterated the importance of identifying national focal points for data collection issues, both in connection with the participation in meetings within the FWP and to the submission of data to the GFCM Secretariat.

REVIEW OF RELEVANT TASK FORCE ACTIVITIES CONCERNING THE SAC

Review of SAC issues addressed within the amendment of the GFCM legal framework

85. Mr Ferri presented the main issues relevant to SAC that were being addressed within the GFCM amendment process. He recalled the decision made at the thirty-sixth session of the Commission to launch this process, building upon recommendations formulated by the Task Force. He expounded that the GFCM Secretariat had prepared a draft amendment of the GFCM Agreement and its associated rules consistent with these recommendations. In anticipation of discussions to be held at

the thirty-seventh session of the Commission, parts of this draft that were most relevant for SAC were introduced, including the subregional working groups and the mechanism aimed at facilitating the Commission decision-making process, called "Recommendation Review Panel" by the independent experts who prepared the amended draft of the GFCM Agreement and its associated rules.

86. The SAC Chairperson noted the benefits of adopting a subregional approach for the performance of GFCM activities, with particular regard to the establishment of multiannual management plans. In some cases, such as stock assessment, the subregional approach was already applied.

87. The Executive Secretary specified that the adoption of a sub-regional approach would take place through the establishment of five subregional working groups. To make cooperation stronger, the GFCM Task Force had proposed that appointed coordinators of these groups would not work on a voluntary basis.

88. In the ensuing discussion, support was expressed to the set-up of subregional working groups. It was explained that they would replace the SAC thematic subcommittees and operate on a geographical basis using GSAs or consistent mandates of FAO regional projects. It was also specified that the meetings of the subregional working groups would be open to delegates from all GFCM Members and to observers.

89. It was also explained that issues common to all subregions would be addressed through joint thematic meetings, always bearing in mind the financial implications linked to participation in these meetings. A coordinating working group could also be created. In any case, coordination among subregional working groups would be ensured by SAC, whose functions would not be affected by the proposed structure. Reference was made to the fruitful cooperation between the WGBS and SAC.

90. Regarding the review panel to facilitate decision-making, the Committee recalled the need to ensure that scientific advice by SAC could be transposed into concrete measures.

91. Upon request by some delegations, the Secretariat illustrated the tasks and composition of the review panel which, for the sake of legitimacy and representativeness, would be composed of individuals appointed within the Commission. The separation between scientific advice formulated by SAC and the decision-making powers of the Commission would be guaranteed. Similarly, the review panel would elaborate draft recommendations on the basis of SAC scientific advice to be submitted to the Commission.

92. To ensure that the review panel could be established before the entry into force of the draft amendment of the GFCM Agreement and its associated rules, it was advocated that the Commission should adopt on a provisional basis the proposed provisions improving its functioning. This would allow to launch immediately a trial phase to test this new approach.

93. The Committee endorsed the proposals concerning issues relevant to SAC as addressed by the GFCM amendment process.

Review of activities under the first phase of the GFCM Framework Programme (FWP)

94. Mr Miguel Bernal, from the GFCM Secretariat, provided an overview of the activities carried out under the FWP. He pointed out that two of the five components enshrined therein were ongoing and two other had just commenced.

Activities related to governance and management

95. The GFCM Secretariat illustrated that work carried out within this component encompassed activities related to the establishment of multiannual management plans, to illegal, unreported and

unregulated (IUU) fishing and to the harmonization of indicators of the status of exploited populations through an ecosystem approach. Emphasis was placed on the outcomes of the workshop on a multiannual management plan in the Adriatic Sea (Croatia, March 2013) which would be submitted to the second validation meeting of the Task Force. It was anticipated that further meetings would follow in other subregions.

96. The delegate of Croatia acknowledged the value of multiannual management plans to ensure the long-term conservation of fisheries, including in the Adriatic Sea where stocks were fished by fleets from EU and non-EU Member States. Therefore, he requested SAC to evaluate the technical measures indicated in EU Regulation 1967/2006 on the drop of nets for purse seiners in the case of the Adriatic Sea.

97. On this issue, the EU delegate stated that SAC could assist in establishing a better and updated technical and scientific overview of past and current purse seiner activities throughout the GFCM area, without focusing solely on the Adriatic Sea. This overview should however avoid entering into a critical assessment of any existing management measures adopted by GFCM Members.

98. The Chairperson and the Executive Secretary stressed that the request by Croatia contained technical aspects and that it was in the power of delegations to submit technical and scientific matters to the consideration of SAC so that they could be referred to specific actions dealing with similar issues. Notwithstanding, they stated that SAC was not competent to enter into the merits of fisheries regulations adopted by GFCM Members.

Activities related to data collection and submission frameworks

99. The GFCM Secretariat illustrated the progress made in establishing the DCRF to improve the functioning of data collection systems. It was recalled that a critical analysis of GFCM data along with relevant information requirements and submission protocols had been performed and that an external assessment of national systems based on the information received from the countries was ongoing. The positive contribution of national focal points was acknowledged, namely regarding the development of five DCRF models presented at two subregional meetings (Croatia, March 2013 and Italy, March 2013).

100. The delegate of the EU thanked the GFCM Secretariat for the excellent job done in a short time. He considered that the proposals tabled seemed very promising but warned against possible reticence to progress. Although acknowledging difficulties that GFCM Members might have in collecting and transmitting data, in his view, a phased implementation could be envisaged so that GFCM obligations could be met in the medium term.

101. The Committee agreed to endorse the recommendations made at the recent meetings on data collection and suggested that the DCRF, once finalized and adopted by the Commission, be included in the Compendium of GFCM decisions.

Activities related to small-scale fisheries

102. The first Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and the Black Sea was presented by the GFCM Secretariat on the basis of document GFCM:SAC15/2013/Inf.21. The symposium is conceived as a platform to provide a working space where main recurring issues of artisanal fisheries could be examined. It is foreseen to be organized in collaboration with several partners, in light of the general interest expressed towards small-scale fisheries, as demonstrated by the FAO International Guidelines for Securing Sustainable Small-Scale Fisheries.

103. The Committee was informed that different modalities were available to ensure the participation of GFCM Members in the symposium, including as co-organizers and partners.

104. The delegate of Egypt stressed the importance of small-scale fisheries and encouraged the FAO regional projects to keep working in this field, especially in the collection of data.

105. Similarly, the delegate of Tunisia prompted for an increased consideration of small-scale fisheries and suggested that issues related to interactions with other sectors (i.e. aquaculture) should be addressed during the symposium.

106. The importance of accounting for the issue of marginalized and ineffective fishing organizations and communities in artisanal fisheries was highlighted by the Lebanese delegate who advocated for a due reflection on this topic within the proposed thematic sessions.

107. The Committee agreed that a final conceptual note on the symposium would be presented to the thirty-seventh session of the Commission and comments delivered at SAC would be reflected therein. The Commission, following the adoption of this note, would endorse the organization of the symposium.

Activities related to subregional cooperation

108. The GFCM Secretariat provided an update on the Concerted Action for Lebanon initiative. It was anticipated that a follow-up meeting to that held in December 2012 at the GFCM headquarters would be convened in Beirut to adopt a strategic roadmap and agree on tactics to identify donors. Also, reference was made to technical assistance provided to Egypt to develop a control system of its fleet.

109. The Lebanese delegation reiterated its gratitude to GFCM for the efforts deployed relating to the roadmap.

110. The Committee welcomed this initiative and stressed that it could be extended elsewhere.

111. The delegate of Tunisia underlined that priority should be given under the FWP to case studies that were suitable to build capacity in GFCM Member States. He added that, considering that the implementation of management measures is the ultimate goal of the Commission, the FWP should make sure to elicit compliance by GFCM Members. To this end, the stakeholders and the fisheries sector should be involved, possibly through wider consultations at national level similar to those envisaged for the RMP-RC.

112. The Libyan delegate invited the GFCM Secretariat to support capacity-building in Libya. It was recalled that an official request from Libya to the GFCM Secretariat was being expected.

Dissemination, data management and online tools

113. Mr Roberto Emma, from the GFCM Secretariat, delivered a presentation on the latest developments of online tools for data management and dissemination launched by the GFCM Secretariat (i.e. a permanent cloud-based IT infrastructure based on SharePoint Online and Windows Azure). The initial development phase had been completed and had led to the definition of document libraries to store and disseminate all contents produced by the GFCM, the creation of portals to host activities relating to the work of GFCM and a process enhancing data submission and compliance monitoring. Mr Emma also explained how access to these online tools was performed through secure user credentials and access policies. He added that the GFCM Secretariat was currently working on the migration of the current systems to Azure databases and on an assessment which would integrate geographic information system (GIS) capabilities, among others.

114. The Committee acknowledged the impressive work carried out by the GFCM Secretariat in developing these tools and recognized their role to facilitate data collection and submission activities.

REVIEW OF SAC PRELIMINARY WORK PLAN FOR 2013–2014

115. This agenda item was introduced by the SAC Chairperson on the basis of the suggestions made by the subcommittees, as reflected in document GFCM:SAC15/2013/2 and the related reports (documents GFCM:SAC15/2013/Inf.6, Inf.7, Inf.8 and Inf.9).

116. To make prioritization easier among the proposed activities, a table containing all proposals along with possible funding sources was introduced by the Secretariat. On this basis and after extensive discussions, the Committee agreed on its work plan for 2013–2014 as follows:

Subcommittee on Marine Environment and Ecosystems (SCMEE)

- Perform a comparative analysis of management measures to protect monk seals (*Monachus monachus*) (Recommendation GFCM/35/2011/5);
- Analyse options to mitigate bycatch of sea turtles and seabirds (Recommendations GFCM/35/2011/3 and GFCM/35/2011/4);
- Assess the impact of alien species on fisheries, establish a proper framework for the collection of data on their landings and explore alternative markets for toxic alien species (pharmacology, aquarists, cosmetics, etc.);
- Develop a second three-year research programme on Elasmobranchs;
- Elaborate a catalogue on fishing gears and technology in the GFCM area based on information gathered by the TechnoMed network;
- Encourage and support research programmes on climate change, marine litter, and underwater noise;
- Organize a one-day workshop on artificial reefs (ARs) within the framework of the 10th International Conference on Artificial Reefs and Related Aquatic Habitats (Izmir, Turkey, September 2013);
- Integrate environmental variables in stock assessment forms, in particular for small pelagic species;
- Develop mid-term research programmes to identify conservation measures and to promote the sustainable use of deep-sea habitats (seamounts, canyons and deep coral populations) and related fishing stocks.

Subcommittee on Economic and Social Sciences (SCESS)

- Organize the first Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea;
- Organize a regional workshop on recreational fisheries, possibly back-to-back with the Symposium on Sustainable Small-Scale Fisheries;
- Collect data on the impacts of puffer fish (*Lagocephalus sceleratus*) in the eastern Mediterranean;
- Prepare a review of socio and economic variables within Task 1.3, to be validated by a group of experts through a dedicated SharePoint platform;
- Prepare a paper concerning socio-economic impacts of selected invasive species in the GFCM area;
- Prepare a review on methodologies for the economic valuation of recreational fisheries in general;
- Develop a common methodology to carry out socio-economic analysis to support fisheries management;
- Establish three working groups on methodologies for socio-economic analysis, on small scale/artisanal fisheries and on recreational fisheries;
- Organize a SCMEE/SCESS transversal session on the impacts of climate change, with special emphasis on the socio-economic aspects of invasive species.

Subcommittee on Stock Assessment (SCSA)

- Organize the meetings of the Working Groups on Small Pelagic and Demersal Species back-to-back with the subcommittee meetings;
- Organize a workshop on the definition and estimation of reference points for small pelagics and demersal stocks, in line with the GFCM Guidelines for multiannual management plans;
- Produce a biennial publication on the status of fisheries in the Mediterranean and Black Sea fisheries, including an overview of the main ongoing research activities;
- Develop methods and undertake studies on stock unit identification, migration patterns and exchange rates between meta-populations;
- Investigate those stocks of lessepsian species that compete with autochthonous stocks, or have even replaced them as main targets of the fishery, being able to endure conditions of high fishing pressure;
- Review stock assessments taking into account environmental variables, in particular for small pelagic species (e.g. sardines and anchovies).

Subcommittee on Statistics and Information (SCSI)

- Facilitate fleet data submission from EU Members to the GFCM Secretariat by looking for feasible interactions with the EU fleet register system;
- Review, in line with the first GFCM data collection reference framework (DCRF), the periodicity of socio-economic data currently collected under Task 1.3 and identify those fields in the GFCM vessel records defined as mandatory;
- Organize a workshop on new data and reporting frameworks as defined in the first DCRF;
- Facilitate end-users information with documentation (leaflet, manual) to exploit the full potentialities of the SharePoint facilities newly established by the Secretariat.
- Organize the relevant meetings and activities foreseen within in the FWP.

Meetings

117. The Committee agreed on the list of meetings as set out below:

Meeting	Place/Date[1]
(SCMEE) Workshop on artificial reefs (ARs) in the Mediterranean and Black Sea (in collaboration with EastMed)	Izmir, Turkey 27 September 2013
(SCSA) Working Group on stock assessment (WGSA) of Demersal Species (5 days)	Montenegro 28 January–1 February 2014
(SCSA) Working Group on stock assessment (WGSA) of Small Pelagic Species (5 days)	
(SCSA) Workshop on the definition and estimation of reference points for Mediterranean and Black Sea fisheries	
(SCESS) Working Group on Common methodology to carry out socio-economic analysis	
14th session of the SCSA	Montenegro, 3–5 February 2014
13th session of the SCMEE	
13th session of the SCSI	
13th session of the SCESS	
16th session of the SAC	St. Julian's, Malta 17–21 March 2014

[1] Dates and places have been updated at the time of printing.

118. The list of meetings foreseen under the FWP for 2013–2014 was duly noted:

Meeting	Place/Date[2]
Sub-regional workshop on data collection, information systems on fisheries in the Black Sea	Varna, Bulgaria 22–24 April 2013
Workshop on IUU fishing, including monitoring, control and surveillance(MCS) and fleet (Mediterranean Sea)	Tunis, Tunisia 3–4 October 2013
Sub-regional workshop to test the feasibility of implementing multiannual management plans (western, central and eastern Mediterranean)	Tunis, Tunisia 7–10 October 2013
First Regional Symposium on Sustainable Small-scale Fisheries in the Mediterranean and the Black Sea	St. Julian's, Malta 27–30 November 2013
(SCSI/SCSA/SCESS) Transversal Workshop on the new data and reporting frameworks, including the GFCM data collection reference framework (DCRF)	Montenegro 3–5 February 2014
Workshop to test the feasibility of implementing multiannual management plans in the Black Sea	Trabzon, Turkey 24–25 February 2014
Kick-off meeting for the Mediterranean Cooperation for the Sustainable Use of the Marine Biological Resources project	TBD

119. The SAC took note of the offer made by GFCM Members to host selected meetings, subject to confirmation by their competent authorities.

ELECTION OF THE SAC BUREAU AND ENDORSEMENT OF SUBCOMMITTEES COORDINATORS NOMINATIONS

120. The Committee expressed great satisfaction for the work done by SAC under the stewardship of the present Bureau, which had already been re-elected for a two-year mandate.

121. Due to the absence of candidates, the Committee agreed that the issue of the election of the SAC bureau be addressed at the thirty-seventh session of the Commission (Split, May 2013).

122. The Committee endorsed the nomination of Mr Federico Álvarez Prado, Mr Francesco Colloca, Mr Scander Ben Salem and Mr Alaa Eldin El-Haweet as coordinators of SCMEE, SCSA, SCESS and SCSI, respectively, for a mandate of two years.

ANY OTHER MATTER

123. No other matters were raised.

DATE AND VENUE OF THE NEXT SESSION

124. The Committee agreed that decision upon the dates and venue of the next SAC session would be taken at the thirty-seventh session of the Commission[2].

ADOPTION OF THE REPORT

125. The report, including its appendices, was adopted on Thursday 11 April 2013.

[2] Dates and places have been updated at the time of printing.

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 quinzième session au siège de la FAO, à Rome (Italie), du 8 au 11 avril 2013. Ont participé à la session les représentants de 20 Parties contractantes, de 12 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. Árni Mathiesen, Sous-Directeur général de la FAO chargé du Département des pêches et de l'aquaculture, a ouvert la réunion et souhaité la bienvenue aux participants au nom du Directeur général de la FAO, M. José Graziano Da Silva. Après s'être déclaré satisfait du niveau de participation à la session, il a informé le Comité sur la réforme en cours concernant les organes établis en vertu des dispositions de l'Article XIV de la Constitution de la FAO. Il a exprimé le vœu que cette réforme permette à la CGPM de promouvoir la gestion durable des pêches dans sa zone de compétence. Faisant observer que plusieurs questions étaient prises en main à la fois par le Département des pêches (FI) de la FAO et par la CGPM et qu'elles étaient susceptibles de faire l'objet d'une collaboration, M. Mathiesen a spécifiquement fait état de certaines activités relevant du Programme-cadre (FWP) de la CGPM, telles que la collecte de données et le premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire (Malte, novembre 2013). Sur ce dernier point, il a confirmé que son département était prêt à collaborer avec la CGPM en vue de la mise en application des Directives internationales de la FAO pour garantir des pêches artisanales durables.

3. M. Abdellah Srour, Secrétaire exécutif de la CGPM, s'est adressé aux participants au nom de la CGPM et de son Président, M. Stefano Cataudella, et a souligné le rôle capital joué par le CSC en formulant des des avis scientifiques pour la Commission. Évoquant le processus en cours relatif à la modification de l'Accord de la CGPM et des règles qui y sont associées, il a rappelé les recommandations formulées par le Groupe de travail pour la modernisation du cadre juridique et institutionnel de la CGPM à l'intention de la Commission à sa trente-sixième session (Maroc, mai 2012), qui proposaient l'adoption par le CSC d'une démarche sous-régionale de la gestion de la pêche afin d'aborder des questions telles que le renforcement des systèmes de collecte de données et la mise en œuvre de plans de gestion pluriannuels. Le Secrétaire exécutif a informé les membres de la CGPM des progrès concernant la mise en œuvre du Programme-cadre de la CGPM (FWP) et a pris acte de la contribution financière de certains membres ainsi que de l'appui apporté par les projets régionaux de la FAO.

4. Après avoir évoqué la complexité inhérente à la gestion des pêches dans la zone de compétence de la CGPM, le Président de la Commission a encouragé les membres de la CGPM à garantir l'indépendance de la recherche scientifique, qui est fondamentale pour une telle gestion.

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 Secrétaire exécutif, qui a informé les participants des modalités d'organisation de la session.

6. Le délégué de la Palestine s'est déclaré reconnaissant de participer à la session et a remercié la CGPM des efforts qu'elle déploie pour le développement du secteur de la pêche en Méditerranée.

7. L'ordre du jour tel qu'adopté par le CSC figure à l'Annexe A, tandis que la liste des documents fait l'objet de l'Annexe C.

ACTIVITÉS INTERSESSIONS

Examen des recommandations formulées par la CGPM à sa trente-sixième session en matière de gestion des pêches

8. Le Secrétaire exécutif de la CGPM a rappelé les dispositions contenues dans les recommandations adoptées à la trente-sixième session de la Commission, à savoir: i) Recommandation CGPM/36/2012/1 sur l'exploitation du corail rouge; ii) Recommandation CGPM/36/2012/2 relative à la réduction des captures accidentelles de cétacés et, iii) Recommandation CGPM/36/2012/3 concernant des mesures de gestion des pêches pour la conservation des requins et des raies. Il a également rappelé les Directives sur les plans de gestion pluriannuels ainsi que les décisions en suspens (par exemple, sur le turbot et la conservation des cétacés en mer Noire et sur la gestion de la capacité de pêche) que la Commission devrait réexaminer à sa trente-septième session (Croatie, mai 2013).

Vue d'ensemble des réalisations du CSC durant la période intersessions

9. S'appuyant sur le document GFCM:SAC15/2013/2, le Président du CSC a présenté les activités conduites pendant la période intersessions. Il a informé les délégués de la tenue de huit réunions, dont celles des quatre sous-comités. Le Président a aussi indiqué que plusieurs ateliers avaient été organisés, dont certains au titre du FWP. Il a précisé que les travaux du CSC pendant la période intersessions avaient bénéficié de la coopération avec plusieurs organisations partenaires, grâce aux protocoles d'accord en vigueur.

10. S'agissant des quatre sous-comités, le Président a commencé par informer le CSC des travaux du Sous-comité de l'environnement et des écosystèmes marins (SCEEM), qui s'est penché sur des questions spécifiques à l'occasion de deux ateliers techniques (détermination de l'âge des élasmobranches et évaluation de la sélectivité) et a examiné les objectifs opérationnels provisoires d'un projet de plan régional de gestion du corail rouge (RMP-RC).

11. Évoquant les travaux du Sous-comité des statistiques et de l'information (SCSI), le Président a mis en évidence les améliorations visant à faciliter les flux de données et d'informations entre les membres et le Secrétariat de la CGPM et à améliorer la conformité des données. Il a souligné les efforts déployés en vue de l'établissement du premier cadre de référence de la CGPM pour la collecte de données (DCRF) et du nouvel Extranet de la CGPM reposant sur SharePoint.

12. Le Président a ensuite informé le CSC que le Sous-comité des sciences économiques et sociales (SCSES) s'était penché sur un certain nombre d'études de cas réalisées, dans le cadre des projets régionaux de la FAO, sur l'analyse socio-économique des pêches ainsi que sur l'organisation du premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire.

13. Enfin, le Président a indiqué que le Sous-comité de l'évaluation des stocks (SCES) avait effectué 29 évaluations d'espèces démersales, dont huit concernaient des stocks couvrant plus d'une sous-région géographique. Il s'est déclaré préoccupé par l'état de ces stocks, qui ont tous été jugés comme étant en situation de surpêche. S'agissant des petits pélagiques, il a rappelé les résultats des douze évaluations de stock réalisées et a exprimé les mêmes inquiétudes pour ceux touchés par la surpêche.

Actions spécifiques relatives à la mer Noire

14. M. Simion Nicolaev, coordonnateur du Groupe de travail sur la mer Noire (WGBS), a présenté les principales activités menées par la CGPM dans cette région. Il a souligné que les points focaux nationaux des six pays riverains de la mer Noire avaient participé à ces activités, notamment aux travaux des Groupes de travail sur l'évaluation des stocks de petits pélagiques et d'espèces

démersales (Croatie, novembre 2012) et à l'atelier sur la pêche illicite, non déclarée et non réglementée (INDNR) en mer Noire (Turquie, février 2013).

15. Le coordonnateur s'est dit satisfait de la création d'une base de données d'experts et d'institutions de la Méditerranée et de la mer Noire par le Secrétariat de la CGPM. Selon lui, cette base de données pourrait offrir une occasion de créer une dynamique au sein de la CGPM afin de prendre en compte l'expertise disponible dans le cadre de plusieurs projets sur la pêche actuellement réalisés en mer Noire (par exemple, ComFish, EU/CREAM, CoCoNet, etc.) et renforcer la coopération avec le Groupe consultatif de la Commission de la mer Noire.

16. Le Comité a noté que les travaux de la CGPM concernant la mer Noire étaient désormais pleinement intégrés aux activités de la Commission.

Activités de recherche entreprises par les États membres

17. Mme Pilar Hernández, du Secrétariat de la CGPM, a fait la synthèse des informations figurant dans les 20 rapports nationaux reçus par le Secrétariat (Annexe F(b)). Elle a exposé les points suivants: i) vue d'ensemble des changements relatifs à la taille et à la production des flottilles dans les États membres de la CGPM; ii) nombre croissant d'évaluations des stocks nationaux réalisées par des membres de la CGPM qui ne sont malheureusement pas systématiquement communiquées aux groupes de travail de la Commission chargés de ces questions; iii) évolution spectaculaire du nombre d'études socio-économiques et d'enquêtes par échantillonnage sur les captures, l'effort de pêche et la biologie, y compris avec l'appui des projets régionaux de la FAO; iv) manque d'information sur les captures accidentelles de requins, de raies et de cétacés, et sur les activités de recherche sur le corail rouge, informations qui auraient dû être communiquées à la Commission en application de ses recommandations en la matière.

18. Le Comité a adressé ses remerciements au Secrétariat de la CGPM pour sa présentation très détaillée des rapports nationaux. Il a fait valoir que les résultats des analyses et des activités de recherche présentés dans les rapports pourraient être utiles aux sous-comités lors de la détermination des priorités du plan de travail qu'ils soumettraient au CSC. En outre, le Comité a été invité à formuler ses observations sur la pratique générale de transmission des rapports nationaux, notamment le modèle de rapport.

19. Il a été précisé que les rapports nationaux avaient pour but de fournir des informations scientifiques produites pendant la période intersessions par les groupes de recherche des États membres de la CGPM et de mettre ces informations à la disposition de celle-ci. Il a également été rappelé que le modèle avait été établi d'un commun accord à la vingt-cinquième session de la Commission et comprenait une section distincte dans laquelle les membres devaient communiquer des informations sur les effets des décisions prises par la CGPM une fois celles-ci mises en œuvre.

20. Après un examen approfondi de la structure des rapports nationaux et compte tenu des observations formulées par plusieurs délégations, le Comité a décidé d'adopter une version révisée du modèle de ces rapports, reproduit à l'annexe D. Il a été précisé que le modèle modifié n'imposerait pas de nombre de pages maximum.

21. Le Comité a également approuvé une proposition formulée par les sous-comités au sujet de l'établissement d'un rapport biennal sur l'état des pêches dans la zone de compétence de la CGPM et il a invité le Secrétariat à rédiger et présenter un projet de canevas pour ce rapport, en vue de son examen et de son éventuelle adoption par la Commission.

Principales activités et initiatives des projets régionaux de la FAO

22. M. Enrico Arneri, coordonnateur des projets AdriaMed et MedSudMed de la FAO, a présenté les activités réalisées au titre des deux projets, qui ont récemment fait l'objet d'une évaluation indépendante de la FAO. Cette dernière a abouti à des recommandations sur leur rôle à venir.

23. Il a été fait état de la coopération actuelle entre AdriaMed et le CSC concernant l'évaluation des stocks et les programmes de recherche sur les ressources en espèces démersales et en petits pélagiques. Ces programmes ont été appuyés par AdriaMed au moyen de plusieurs initiatives rattachées au FWP; un compte-rendu des diverses interventions en matière de coordination de la gestion des pêches dans l'Adriatique a également été présenté.

24. S'agissant de MedSudMed, les résultats de réunions sous-régionales sur les pêcheries démersales ont été résumés. Un soutien a été fourni pour l'évaluation conjointe des stocks et pour les programmes de recherche en apportant une base technique afin d'aider à progresser vers une vision commune des problèmes liés à la gestion des pêcheries démersales ainsi qu'une base scientifique pour favoriser une harmonisation des mesures de gestion. En ce qui concerne les ressources de petits pélagiques, le projet MedSudMed a favorisé le débat et le partage des données nationales sur la pêche.

25. M. Juan Camiñas, coordonnateur du projet CopeMed II, a ensuite illustré les mesures déployées pour renforcer les capacités nationales dans le domaine des statistiques. Il a indiqué que CopeMed II continuait de prêter assistance aux experts nationaux à divers égards, car le renforcement des capacités et la coopération régionale demeuraient prioritaires. Une attention particulière a été portée aux activités de recherche à l'appui de la gestion des pêches, notamment en ce qui concerne les stocks partagés, ou présumés partagés, de petits pélagiques et d'espèces démersales. Le coordonnateur a souligné que les travaux concernant ces stocks s'inscrivaient dans le droit fil des priorités identifiées par la CGPM et que les résultats en avaient été présentés aux groupes de travail sur l'évaluation des stocks de la CGPM (Croatie, novembre 2012).

26. Mme Constantina Riga, coordonnatrice du projet EastMed, a présenté les progrès enregistrés dans le cadre de ce projet régional, faisant état notamment: i) d'une étude de faisabilité sur la nouvelle conception des navires de pêche artisanale et les nouveaux matériaux utilisés pour les navires; ii) d'essais expérimentaux sur les techniques de pêche; iii) du renforcement des systèmes d'information; iv) du développement de certaines pêches; v) de la formation des inspecteurs; vi) de la collecte et de l'analyse des données et vii) de la recherche scientifique. Une étroite coopération avec la CGPM a été envisagée pour l'établissement d'une base de données régionale des cadres juridiques nationaux ainsi qu'au titre de diverses activités du FWP. La coordonnatrice a également fait référence à des activités communes aux différents projets régionaux de la FAO favorisant la coopération pour une meilleure utilisation des ressources financières et humaines, et elle a souligné la nécessité d'assurer une coordination institutionnelle avec la CGPM.

27. La coordonnatrice du projet EastMed a présenté au CSC un aperçu du projet MedLME, mis en œuvre par la FAO, portant sur un «Partenariat stratégique pour le grand écosystème marin de la Méditerranée».

28. Le Comité a pris acte des vastes travaux entrepris dans le cadre des projets régionaux et de leurs précieuses contributions scientifiques. Les délégués de la Croatie, de l'Égypte, du Liban, de la Libye, du Maroc et de la Tunisie ont rappelé qu'il était important de poursuivre ces projets compte tenu de l'excellent travail réalisé à ce jour.

29. Étant donné les résultats positifs des projets régionaux pour la Méditerranée, le délégué de la Roumanie a demandé qu'une initiative similaire soit envisagée pour appuyer les travaux du Groupe de travail sur la mer Noire. Il a indiqué que son pays était prêt à examiner la question avec le Secrétaire exécutif de la CGPM.

30. Le délégué de la France a souligné la pertinence des programmes régionaux pour continuer à améliorer les avis à l'appui de la gestion des pêches à l'échelon sous-régional. De ce point de vue, et compte tenu de l'importance que le Groupe de travail pour la modernisation du cadre juridique et institutionnel de la CGPM a attaché l'année dernière à l'adoption d'une démarche sous-régionale de la gestion des pêches, les efforts en cours pour l'établissement de plans de gestion pour les petits pélagiques en Adriatique méritent toute l'attention de la Commission et pourraient inspirer de nouveaux projets régionaux de la FAO. Pour instaurer des conditions équitables en matière de gestion des pêches, il a été suggéré d'envisager un renforcement de l'appui financier, notamment par le biais de contributions extrabudgétaires.

31. Tout en notant l'impact de la crise économique actuelle, le délégué de l'Union européenne (UE) a fait valoir qu'il était important de maintenir les projets régionaux aussi longtemps que possible. Il a déclaré qu'en dépit de l'augmentation des contributions de l'UE aux projets régionaux de la FAO, celles-ci conserveraient leur caractère annuel et devraient être justifiées en fonction des résultats obtenus. Il a donc préconisé que les projets régionaux de la FAO adoptent des modalités de travail plus novatrices.

32. Compte tenu de l'importance des projets régionaux de la FAO, le Secrétaire exécutif a fait valoir qu'il serait opportun de tirer parti de la réforme en cours de la CGPM pour garantir leur stabilité et leur viabilité, évitant ainsi que leurs travaux ne soient compromis par un manque de financement. Rappelant que le FWP n'avait jamais eu pour objet de se substituer aux projets régionaux, mais plutôt de les sous-tendre, le Comité est convenu de charger le Secrétariat de la CGPM de travailler en étroite collaboration avec les projets régionaux, notamment dans le cadre d'une réunion spécifique avec la FAO consacrée au renforcement de leur caractère institutionnel.

33. M. Issam Krouma, expert invité syrien d'EastMed, a remercié la FAO, la CGPM et le projet EastMed pour leur invitation et a exprimé sa vive satisfaction quant aux activités menées par le CSC durant la période intersessions. Il a souligné la capacité technique de la Syrie à suivre le rythme des travaux du CSC et formulé l'espoir qu'elle y participe à l'avenir.

FORMULATION D'AVIS EN MATIÈRE DE RECHERCHE ET DE GESTION DES PÊCHES

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

34. M. Nicola Ferri, du Secrétariat de la CGPM, a présenté les conclusions et recommandations du SCSES, en s'appuyant sur les documents GFCM:SAC15/2013/2 et GFCM:SAC15/2013/Inf.8. Il a noté qu'à la différence des années passées, les réunions du SCSES avaient bénéficié d'une forte participation et que de nombreux exposés y avaient été présentés. Il a ajouté que les discussions avaient été centrées sur des études de cas portant sur les aspects socio-économiques, la pêche aux petits métiers/pêche artisanale, les pêches de loisirs ainsi que sur les variables socio-économiques. Il a rappelé que le SCSES avait recommandé la création de trois groupes de travail ad hoc (sur la pêche aux petits métiers/pêche artisanale, sur les pêches de loisirs, et sur l'établissement d'une méthodologie d'analyse socio-économique commune visant à améliorer les avis en matière de gestion des pêches).

35. Le Comité a pris acte des importantes avancées des travaux du SCSES pendant la période intersessions, qui attestent l'intérêt suscité par les questions qu'il traite. Il a toutefois été recommandé que le SCSES se limite à l'avenir à deux ou trois thématiques au plus.

36. Le délégué de la Tunisie a proposé que le SCSES se concentre sur les études techniques relevant des sciences socio-économiques à l'appui de la gestion des pêches ainsi que sur les aspects techniques touchant à la commercialisation des produits de la pêche. Pour sa part, le délégué égyptien a accueilli avec satisfaction la proposition de création d'un groupe de travail chargé d'examiner les variables socio-économiques au titre de la Tâche 1.3.

37. En ce qui concerne la pêche artisanale, d'aucuns ont jugé que la notion de cogestion devait être abordée avec prudence, car elle pourrait être moins bien établie dans certaines sous-régions. Le Secrétaire exécutif a précisé que la cogestion était l'une des composantes du Programme-cadre et que les travaux futurs sur la question devraient être entrepris de façon cohérente avec ce programme. Il a encore précisé que l'expression «pêche artisanale» signifiait «pêche aux petits métiers», et a invité les délégués à se référer au document GFCM:SAC15/2013/Inf.21 sur le premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire.

38. Étant donné le grand nombre de recommandations formulées par le SCSES, l'intégration de données socio-économiques dans les modèles bioéconomiques utilisés à l'appui des plans de gestion sous-régionaux et l'application des Directives internationales de la FAO pour garantir des pêches artisanales durables en collaboration avec le Département des pêches de l'Organisation ont été jugées prioritaires. S'agissant des données socio-économiques, il a été signalé que leur communication poserait problème et que le SCSES devrait donc proposer des méthodes pour faciliter cette tâche.

39. À la lumière des délibérations, il a été convenu de dresser une liste de priorités qui serait soumise au CSC pour validation et à la Commission pour adoption à sa trente-septième session. Afin de faciliter l'examen du programme de travail, cette proposition viserait à regrouper les suggestions formulées par l'ensemble des sous-comités en quatre types d'activités relevant: i) du programme ordinaire; ii) du Programme-cadre; iii) des projets régionaux de la FAO et, iv) des universités et institutions au niveau national.

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

40. M. Federico Álvarez, coordonnateur du SCEEM, a présenté les conclusions et recommandations du Sous-comité en se fondant sur les documents GFCM:SAC15/2013/2 et GFCM:SAC15/2013/Inf.6. Il s'est notamment attardé sur celles concernant: i) la poursuite des travaux de recherche sur la conservation des élasmobranches; ii) l'établissement d'une stratégie destinée à faciliter l'échange d'informations sur la sélectivité et les technologies de pêche; iii) l'analyse de solutions d'atténuation visant à réduire les captures accidentelles de tortues et d'oiseaux de mer; iv) l'approfondissement des connaissances sur les écosystèmes vulnérables et l'identification de zones marines protégées; v) la surveillance des espèces exotiques et vi) la préparation et l'examen du plan régional de gestion du corail rouge (RMP-RC) (document GFCM:SAC15/2013/Inf.22).

41. Au cours de la discussion, le délégué du Liban a appelé l'attention des participants sur les récents forages de prospection d'hydrocarbures en Méditerranée orientale et exhorté le CSC à évaluer l'impact des activités susceptibles d'avoir des effets négatifs sur les écosystèmes vulnérables. Le délégué de Chypre a fait savoir qu'une étude d'impact stratégique était en cours de réalisation dans son pays pour évaluer les effets de ces forages exploratoires.

42. Le CSC a proposé que le SCEEM poursuive les travaux engagés dans le but d'approfondir l'examen des activités commerciales liées à l'exploitation du poisson ballon à bande argentée (*Lagocephalus sceleratus*)à des fins autres que la consommation humaine. Il a ajouté qu'étant donné que certaines espèces envahissantes non toxiques commençaient à présenter un intérêt commercial, il y avait lieu d'envisager leur prise en compte dans les travaux en rapport avec les évaluations de stocks.

43. S'agissant du RMP-RC, le représentant du World Conservation Trust (IWMC) a suggéré que le CSC entreprenne une analyse socio-économique sur l'exploitation du corail rouge, comme indiqué dans la deuxième partie du RMP-RC. Il a également proposé d'introduire des composantes relatives à l'adaptabilité du plan (pour lesquelles le «modèle de la Sardaigne» a été évoqué) car elles seraient susceptibles de contenir des informations utiles et a demandé d'inclure des plans de recherche à moyen terme sur le corail rouge dans les sections pertinentes du RMP-RC.

44. Le Comité a été avisé qu'il conviendrait d'ajouter un nouveau chapitre sur les actions après-débarquement, lequel pourrait inclure un mécanisme de traçabilité permettant de surveiller les exportations potentielles de colonies à l'état brut hors de la zone de compétence de la CGPM. Le SCEEM a été appelé à donner un avis sur les dates limites de la mise en œuvre progressive du plan régional de gestion, sachant qu'il convenait de fixer le délai d'adoption par les membres de la CGPM des plans de gestion nationaux fondés sur le RMP-RC. À cet effet, le Comité a vivement recommandé de lancer des consultations élargies au niveau national avec toutes les parties prenantes concernées avant la prochaine session annuelle de la Commission.

45. Sur la question des zones de pêche réglementée, la recommandation en attente de la CGPM, présentée à la trente-cinquième session de la Commission (siège de la FAO, mai 2011), a été rappelée au Comité. Concernant la situation actuelle de la proposition de 2010 sur une zone de pêche réglementée relative aux monts sous-marins aux Baléares, le délégué de l'Espagne a expliqué que des consultations avaient été engagées avec différentes parties prenantes et que la proposition en cours d'élaboration visant à protéger une partie de la zone serait publiée, si elle était approuvée, dans le cadre d'un décret ministériel.

46. La représentante d'Oceana a accueilli avec satisfaction cette proposition, même si, à son avis, l'Espagne devrait veiller à englober les considérations liées à la mise en application de l'approche écosystémique et des Directives de la FAO sur la pêche en eaux profondes. Cela permettrait de protéger à la fois la partie supérieure des monts sous-marins dans la proposition de zone de pêche réglementée et les écosystèmes marins vulnérables en eaux profondes existants. L'Espagne se chargerait de mettre la dernière main au dossier avant la prochaine session du SCEEM, de façon à permettre aux participants de l'étudier attentivement.

47. Le représentant de l'Union internationale pour la conservation de la nature (UICN) a informé le Comité que, pour améliorer la connaissance des zones protégées dans les eaux relevant de la juridiction nationale, son organisation avait établi une série de cartes qui pourraient être utiles, en particulier pour l'identification de ces zones et la mise en place éventuelle de zones de pêche réglementée. Sur ce point, il a évoqué la coopération en cours avec le Liban, dont la stratégie nationale prévoyait d'examiner la création de zones de pêche réglementée dans les eaux relevant de sa juridiction nationale. Les participants ont noté que l'UICN était en train de mettre sur pied une initiative analogue avec le Maroc afin d'établir deux zones protégées pour la pêche en Méditerranée. Il a été recommandé que le Maroc présente cette initiative à la prochaine session du SCEEM.

48. Au vu des informations sur les zones protégées et les habitats profonds actuellement recueillies par un certain nombre d'organisations, il a été proposé d'inscrire un point à l'ordre du jour de la prochaine réunion du SCEEM afin d'évaluer sa contribution potentielle aux travaux du CSC sur les zones de pêche réglementée.

49. Se fondant sur une proposition d'Oceana, le Comité a rappelé que des mesures devaient être prises concernant la Recommandation de 2012 relative à la collecte de données écologiques et biologiques sur les monts sous-marins (GFCM:SAC15/2013/Inf.4).

50. Le délégué de la France a donné des indications au Comité sur la création récente d'une zone économique exclusive (ZEE) en Méditerranée. Le Golfe du Lion devrait ainsi se trouver englobé dans cette zone, ce qui permettrait d'agir plus efficacement pour mettre en œuvre et contrôler la zone de pêche réglementée du Golfe du Lion.

51. Le délégué de la Libye a exhorté le Comité à n'envisager l'établissement de zones protégées qu'après avoir préalablement réalisé des études et recueilli des données biologiques, sociales et économiques. Il a indiqué que la Libye procédait à de telles études, mais que celles-ci n'avaient pas été présentées à la CGPM. Il a insisté en outre sur la nécessité de dispenser des formations sur le sujet.

52. Le Comité s'est dit favorable au lancement d'une action spécifique de collecte de données et d'informations utiles sur les aires marines protégées (AMP) à l'échelon national, y compris sur les mesures et les stratégies adoptées pour les gérer. Dans ce but, le Comité a suggéré de commencer par diffuser un questionnaire. Ce travail pourrait aussi tirer avantage de la coopération étroite avec les partenaires concernés (Oceana, le réseau MedPAN, le Plan d'action pour la Méditerranée, etc.), qui pourrait favoriser les progrès dans ce domaine.

53. La représentante de l'Accord sur la conservation des cétacés de la mer Noire, de la Méditerranée et de la zone atlantique adjacente (ACCOBAMS) a rendu compte du lancement d'un projet sur les interactions entre espèces menacées et activités de pêche, notamment en ce qui concerne les captures accidentelles de cétacés, de tortues de mer et d'oiseaux marins, ainsi que la déprédation. Des consultations avaient déjà été organisées avec les donateurs, lesquels avaient manifesté leur intérêt pour une action centrée sur l'ouest de la Méditerranée et fondée sur une approche multi-espèces. Elle a proposé qu'à l'avenir un projet analogue soit lancé pour la mer Noire. Il a été rappelé que des projets de ce type étaient déjà en place en mer Noire.

54. Le délégué du Maroc s'est réjoui de cette initiative et a manifesté l'intention de son pays d'y participer directement, compte tenu de l'intérêt suscité par les problèmes de captures accidentelles et de déprédation.

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

55. M. Fabio Fiorentino, coordonnateur du SCES, a présenté les conclusions du sous-comité en se fondant sur les documents GFCM:SAC15/2013/2 et GFCM:SAC15/2013/Inf.9. Il a noté que 22 des 29 stocks d'espèces démersales évalués étaient actuellement surexploités, une évaluation étant incertaine et les autres préliminaires. S'agissant des petits pélagiques, le groupe de travail a évalué 12 stocks, 5 de ces évaluations étant considérées comme préliminaires à ce stade. Les stocks restants ont été classés dans les catégories «en situation d'exploitation durable» ou «pleinement exploités» (5), «en situation de surpêche» (1) ou «effondrés» (1).

56. Le coordonnateur du SCES a ensuite résumé les recommandations et les avis scientifiques formulés par le sous-comité, notamment dans la perspective d'évaluations futures. Pour les espèces démersales: i) définir une série commune de paramètres biologiques à l'échelle sous-régionale; ii) définir des limites adéquates et des points de référence fondés sur le principe de précaution; iii) justifier l'utilisation du système de surveillance des navires (SSN) pour les évaluations des stocks; iv) entreprendre des travaux de recherche sur les espèces lessepsiennes; v) utiliser des points de référence communs pour les stocks de mêmes espèces présentant des taux de productivité et d'exploitation analogues. S'agissant des petits pélagiques, le sous-comité a préconisé de réviser la définition conceptuelle des points de référence fixant la limite de la biomasse, en tenant compte notamment du rôle des petits pélagiques à l'échelle de l'écosystème. Pour l'ensemble des espèces: i) examiner la terminologie et les contenus scientifiques des évaluations et créer un groupe d'examen en ligne; ii) utiliser des critères normalisés de classification des avis; iii) examiner et définir des objectifs, des limites et des points de référence fondés sur le principe de précaution; iv) utiliser de préférence des points de référence pour la biomasse estimés dans le cadre d'évaluations analytiques formelles des stocks plutôt que ceux obtenus par des moyens empiriques; v) accroître le nombre de stocks avec des points de référence précis et le nombre de points de référence utilisés; vi) revoir les formulaires d'évaluation des stocks, normaliser et classifier les évaluations; vii) établir des rapports réguliers sur l'état des pêcheries de la Méditerranée et de la mer Noire et viii) entreprendre des travaux de recherche sur les méthodes utilisées en génétique, en génomique et dans d'autres domaines pour faciliter l'identification des unités de stocks, la compréhension des schémas migratoires et le calcul des taux d'échange entre métapopulations. S'agissant de la définition des limites des aires des stocks, le coordonnateur a mentionné le projet StockMed, financé par l'UE, visant à prendre en considération des unités de stocks suivant une approche pluridisciplinaire.

57. Le Comité a noté que la forte proportion de stocks actuellement surexploités appelait une réduction urgente de la mortalité par pêche. Le rôle du SSN dans la mise en œuvre d'une approche spatiale de la gestion des pêches a été souligné.

58. S'agissant des espèces exotiques, le Comité a pris note de l'impact des espèces exploitées et des espèces toxiques (telles que le poisson ballon à bande argentée) et a appelé à l'élaboration de plans de gestion adaptés.

59. Le Comité s'est déclaré satisfait de l'excellent travail effectué et a salué les progrès impressionnants réalisés par le sous-comité pendant la période intersessions, tant en ce qui concerne l'évaluation de l'état des stocks que la formulation d'avis scientifiques. Il a également pris acte du nombre croissant de stocks évalués et de la qualité des évaluations.

60. Le Secrétariat a fait observer que, conformément aux directives de la CGPM sur les plans de gestion pluriannuels sous-régionaux, il convenait de recommander directement une réduction de la mortalité par pêche des stocks jugés surexploités ou en situation de surpêche.

61. Le délégué de la Tunisie a souligné l'importance des avis scientifiques aux fins de la gestion durable des pêches. Il a appelé à donner une application concrète aux recommandations générales visant la réduction de la mortalité par pêche notamment en améliorant la sélectivité des engins de pêche, susceptible de favoriser la réduction de la surpêche.

62. Compte tenu des discussions sur les hypothèses relatives aux stocks partagés dans le cadre de l'évaluation des stocks, les délégués de la France et de l'Espagne, ainsi que ceux du Maroc, de l'Algérie et de la Tunisie, ont souligné la nécessité de mettre en œuvre des mesures pour identifier les unités de stocks. Ils ont estimé qu'il fallait renforcer, dans la mesure du possible, la coopération dans le bassin de la Méditerranée occidentale afin de mener des études scientifiques (génétique, études morphométriques, lieux de ponte et zones d'alimentation juvéniles, hydrodynamique, etc.) en vue de déterminer les aires de répartition des stocks et leurs limites. Le Comité a proposé d'organiser, dans le cadre de CopeMed II, une réunion sous-régionale pour faire avancer la question, avec la participation potentielle d'autres partenaires.

63. Le délégué de l'Italie a souligné que, dans la mesure où des plans de gestion pluriannuels devaient être établis, les évaluations devaient être réalisées non seulement à l'échelle des sous-régions géographiques (GSA), mais aussi en fonction des limites réelles des stocks, ce qui supposerait de progresser pour faire en sorte que les efforts de gestion s'orientent dans le même sens.

64. La déléguée de la France a émis des réserves quant à l'utilisation du terme «effondré» pour décrire la situation du stock de sardines dans la sous-région géographique 07. Elle a indiqué que les petits pélagiques étaient connus pour fluctuer fortement dans la plupart des écosystèmes et ajouté que la pression exercée actuellement par la pêche sur le stock était minime. Par ailleurs, alors qu'en 2010 et en 2011 la biomasse avait atteint son niveau historique le plus bas, des premiers signes de reconstitution du stock avaient été observés en 2012, tant en ce qui concerne la biomasse totale que la biomasse du stock reproducteur. La déléguée de la France a dit partager l'analyse du Groupe de travail sur les petits pélagiques, qui a estimé que ces premiers signes devraient se confirmer dans les prochaines années et qu'il convenait, dans l'intervalle, de réduire au minimum la pression exercée par la pêche sur ce stock déjà fragilisé. Elle a cependant précisé que cette condition était déjà remplie. Ces questions pourraient faire l'objet d'un plan régional de gestion des ressources de la sous-région.

65. Le délégué de la Tunisie a invité le SCES à inclure les facteurs environnementaux dans l'évaluation des stocks de petits pélagiques.

66. S'agissant du poisson ballon à bande argentée *(Lagocephalus sceleratus*), la déléguée de l'Égypte a indiqué que, selon les conclusions de certains scientifiques, fondées sur des études biologiques réalisées dans la mer Rouge, la toxicité de l'espèce augmentait avec sa maturité, en

particulier au cours des périodes de reproduction, et les juvéniles n'étaient pas toxiques. Elle a également souligné qu'une corrélation avait été établie entre l'augmentation des captures de poisson ballon et la diminution des prises de poulpe, dont cette espèce se nourrit, ce qui semblerait indiquer que ce poisson a un impact sur la chaîne alimentaire à l'échelle de l'écosystème. Une proposition en faveur de la poursuite de la pêche de cette espèce et de l'adoption de mesures de sélectivité axées sur les limites de taille a été présentée.

67. La coordonnatrice du projet EastMed a rendu compte de plusieurs initiatives relatives aux espèces exotiques. Elle a indiqué qu'une étude sur les effets socio-économiques du poisson ballon à bande argentée, et plus particulièrement sur son impact sur la pêche du poulpe, avait été entreprise à Chypre, et elle a conseillé de traiter les espèces exotiques non toxiques comme les autres espèces (autochtones) commerciales.

68. La déléguée de la Turquie a rappelé que son pays avait récemment adopté des mesures techniques à l'échelon national pour la période 2012-2016. S'agissant du turbot, elle a expliqué que la taille minimale des turbots débarqués serait de 45 cm (longueur totale) et qu'aucune activité de pêche au turbot ne serait permise entre le 15 avril et le 15 juin. Le maillage minimal autorisé pour la pêche au turbot serait de 400 mm. Cependant, il a été préconisé que toutes les mesures techniques communes applicables à la mer Noire soient appliquées par tous les États riverains de la mer Noire.

69. Le Comité a fait les observations suivantes: i) les stratégies visant à la réduction de la mortalité par pêche (fermeture saisonnière de la pêche, méthodes sélectives, etc.) pourraient être intégrées à un plan de gestion pluriannuel sous-régional; ii) l'identification des unités de stocks dans l'ensemble de la zone de compétence de la CGPM pourrait donner lieu, dans un premier temps, à une analyse préliminaire de la répartition et de l'abondance des stocks ainsi que des limites physiques (par exemple, fonds marins, caractéristiques océanographiques), ce qui permettrait de mieux cerner les limites géographiques potentielles des stocks; iii) s'agissant de la définition des points de référence, il faudrait s'employer à définir de manière précise des points de référence pour le plus grand nombre possible de stocks afin de pouvoir formuler des avis clairs sur l'état des stocks et iv) l'avis relatif au stock de sardines de la sous-région géographique 07 devrait clairement indiquer que celui-ci a subi des pressions environnementales et que l'effort de pêche devrait être réduit au minimum afin de favoriser la reconstitution de la ressource.

70. Face à l'état alarmant de la plupart des stocks démersaux de la zone de compétence de la CGPM et en prévision de l'établissement de plans de gestion pluriannuels pertinents, le Comité a fait observer qu'il convenait de prendre des mesures pour: i) réduire la mortalité par pêche des espèces démersales et ii) renforcer les mesures sélectives applicables à la pêche de ces espèces.

71. En réponse à une question du délégué de l'Union européenne, la Roumanie et la Bulgarie ont donné des informations sur la pêche du turbot dans la mer Noire, qui obéit aux règles de l'UE relatives aux captures totales admissibles, lesquelles s'appliquent également à certains filets maillants. Il a été souligné que la Roumanie et la Bulgarie avaient déjà adopté des mesures fixant un maillage minimal de 400 mm et la taille minimale des turbots débarqués à 45 cm. Les participants ont été informés qu'en 2013, la Roumanie avait lancé un projet visant à améliorer les connaissances relatives à l'aiguillat commun.

72. Le Secrétariat a indiqué qu'un groupe de travail chargé d'évaluer les stocks de la mer Noire serait créé pour la première fois en 2013 et que ses travaux seraient précédés de sessions de formation pratique.

73. Le délégué de l'Union européenne a précisé que tous les efforts seraient déployés pour mettre les meilleures informations possibles à la disposition du groupe de travail et de toute autre instance œuvrant à l'évaluation des stocks de la mer Noire.

74. Les projets régionaux de la FAO ont confirmé leur soutien technique aux plans de gestion pluriannuels et se sont dits prêts à aider les membres lors des étapes pertinentes du processus, depuis l'évaluation conjointe des stocks partagés jusqu'aux études sur les engins de pêche et aux exercices de modélisation socio-économique et bioéconomique, entre autres.

75. S'agissant du fonctionnement des groupes de travail et des sous-comités, le Comité a examiné diverses options qui permettraient d'optimiser les moyens disponibles et a suggéré, à cet égard, que la prochaine réunion des groupes de travail se tienne immédiatement avant ou après celle des sous-comités.

76. La liste complète des avis scientifiques sur l'état des stocks de la Méditerranée et de la mer Noire telle qu'examinée et validée par le CSC figure à l'Annexe E.

77. Les délégués d'Oceana et du Fonds mondial pour la nature (WWF) ont fait part de leurs inquiétudes concernant les résultats préoccupants des évaluations de stocks, les niveaux de F affichant des valeurs particulièrement alarmantes. Face à cette situation, ils ont jugé qu'il était important d'accélérer le processus d'élaboration des plans de gestion afin d'intégrer toutes les mesures mentionnées durant la réunion et de favoriser leur mise en œuvre dès que possible. Cependant, étant donné que ces plans ne seraient pas lancés dans l'immédiat, les deux organisations ont demandé que des mesures urgentes soient prises pour développer les recommandations actuelles du sous-comité.

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

78. M. Federico De Rossi, du Secrétariat de la CGPM, a présenté les conclusions et recommandations du SCSI en se fondant sur les documents GFCM:SAC15/2013/2 et GFCM:SAC15/2013/Inf.6. Il a souligné en particulier les progrès réalisés dans les domaines suivants: i) collecte et état de la transmission de données et systèmes d'information; ii) données relatives aux navires de pêche (bases de données sur les registres des navires, systèmes d'information et statistiques); iii) problèmes relatifs à la transmission de données (registre des navires et Tâche 1); iv) amélioration des moyens de communication et des outils informatiques (y compris le nouveau site de la CGPM en cours de construction); v) SSN et activités de coopération et vi) collaboration avec la FAO concernant le fichier mondial des navires de pêche.

79. Le Secrétariat a en outre indiqué que le SCSI avait suggéré de mettre en place, pour les États membres de l'UE une transmission de données issues du registre des flottilles de pêche au Secrétariat de la CGPM et de promouvoir la poursuite des discussions bilatérales pour remédier aux difficultés particulières faisant obstacle à la communication de ces données. Le premier cadre de référence de la CGPM pour la collecte de données (DCRF) étant actuellement en cours d'élaboration, le SCSI a suggéré de réviser la périodicité des données socio-économiques collectées au titre de la Tâche 1.3 et de revoir les critères optionnels/obligatoires applicables à la transmission de données sur les flottilles.

80. Le Comité a salué la qualité du travail effectué par le SCSI. Le Président a noté que les membres de la CGPM n'avaient soumis qu'une partie des données demandées, lesquelles semblaient pourtant disponibles à l'échelle nationale.

81. Le délégué du Maroc a demandé des éclaircissements concernant les problèmes que rencontrent les membres de la CGPM pour communiquer les données requises au titre de la Tâche 1. Évoquant la révision du DCRF, il a rappelé que le SCSES avait souligné l'importance de la participation des experts de tous les sous-comités aux réunions prévues au titre du FWP, l'objectif étant de faire en sorte que toutes les données soient prises en compte.

82. Le Secrétariat de la CGPM a indiqué que les conclusions des deux premiers ateliers sous-régionaux sur la collecte de données sur les pêches (Croatie, mars 2013 et Italie, mars 2013), étaient disponibles dans les documents de réunion GFCM:SAC15/2013/Inf.17 et GFCM:SAC15/2013/Inf.18.

83. Le délégué de l'Égypte a souligné la nécessité d'insister auprès des membres de la CGPM pour qu'ils honorent leurs obligations en matière de communication de données.

84. Le Comité a rappelé l'importance d'identifier des points de contact nationaux pour les questions relatives à la collecte de données, tant en ce qui concernait la participation aux réunions relevant du FWP que la communication des données au Secrétariat de la CGPM.

EXAMEN DES ACTIVITÉS DU GROUPE DE TRAVAIL POUR LA MODERNISATION DU CADRE JURIDIQUE ET INSTITUTIONNEL DE LA CGPM INTÉRESSANT LE CSC

Examen des questions intéressant le CSC dans le contexte de l'amendement du cadre juridique de la CGPM

85. M. Ferri a présenté les principales questions intéressant le CSC abordées dans le processus d'amendement du cadre de la CGPM. Il a rappelé qu'à sa trente-sixième session, la Commission avait décidé de lancer ce processus en s'appuyant sur les recommandations du Groupe de travail pour la modernisation du cadre juridique et institutionnel de la CGPM. Il a expliqué que le Secrétariat de la CGPM travaillait à un projet de version modifiée de l'Accord portant création de la CGPM et des règles qui y sont associées, dans la ligne de ces recommandations. En prévision des débats de la trente-septième session de la Commission, les parties de ce projet intéressant plus particulièrement le CSC ont été présentées, notamment les groupes de travail sous-régionaux ainsi que le mécanisme visant à faciliter le processus décisionnel de la Commission, dénommé «Groupe chargé de l'examen des recommandations» par les experts indépendants ayant rédigé le projet de version modifiée de l'Accord de la CGPM et des règles qui y sont associées.

86. Le Président du CSC a pris note des avantages que présentait l'adoption d'une approche sous-régionale pour l'efficacité des activités de la CGPM, s'agissant en particulier de la mise en place de plans de gestion pluriannuels. Dans certains cas, tels que l'évaluation des stocks, cette approche sous-régionale était déjà appliquée.

87. Le Secrétaire exécutif a précisé que l'adoption de cette démarche se ferait grâce à la création de cinq groupes de travail sous-régionaux. Afin d'assurer une meilleure coopération, le Groupe de travail pour la modernisation du cadre juridique et institutionnel de la CGPM avait proposé que les coordonnateurs de ces groupes ne travaillent pas à titre bénévole.

88. Au cours de la discussion qui a suivi, les participants ont accueilli favorablement la création des groupes de travail sous-régionaux. Il a été expliqué que les groupes sous-régionaux remplaceraient les sous-comités thématiques du CSC et fonctionneraient sur une base géographique, en fonction des sous-régions géographiques ou en accord avec le mandat des projets régionaux de la FAO. Il a également été indiqué que les réunions des groupes de travail sous-régionaux seraient ouvertes aux délégués de tous les membres et observateurs de la CGPM.

89. On a expliqué en outre que les problèmes communs à toutes les sous-régions seraient traités lors de réunions thématiques conjointes, sans jamais perdre de vue les incidences financières de la participation à ces réunions. Un groupe de travail de coordination pourrait aussi être créé. En tout état de cause, la coordination entre groupes de travail sous-régionaux serait assurée par le CSC, dont les fonctions ne seraient pas touchées par la structure proposée. La coopération fructueuse entre le WGBS et le CSC a été évoquée.

90. Concernant le groupe d'examen créé pour faciliter le processus décisionnel, le Comité a rappelé la nécessité de veiller à ce que les avis scientifiques du CSC puissent se traduire par des mesures concrètes.

91. À la demande de plusieurs délégations, le Secrétariat a donné des éclaircissements sur les tâches et la composition du groupe d'examen qui, dans un souci de légitimité et de représentativité,

serait formé de personnes nommées au sein de la Commission. La séparation entre les avis scientifiques donnés par le CSC et les pouvoirs décisionnels de la Commission serait ainsi garantie. De même, le groupe d'examen élaborerait des projets de recommandations, en prenant appui sur les avis scientifiques formulés par le CSC à présenter à la Commission.

92. Pour que le groupe d'examen puisse être créé avant l'entrée en vigueur du projet d'amendement de l'Accord portant création de la CGPM et des règles qui y sont associées, il a été proposé que la Commission adopte, à titre provisoire, les dispositions proposées pour améliorer son fonctionnement. Cela permettrait de lancer immédiatement une phase d'expérimentation destinée à tester cette nouvelle approche.

93. Le Comité a approuvé les propositions relatives aux questions intéressant le CSC telles qu'issues du processus de modernisation de la CGPM.

Examen des activités relevant de la première phase du Programme-cadre de la CGPM (FWP)

94. M. Miguel Bernal, du Secrétariat de la CGPM, a présenté une vue d'ensemble des activités menées au titre du FWP. Il a signalé que, sur les cinq composantes incluses dans le FWP, deux étaient en cours et deux autres avaient tout juste commencé.

Activités en matière de gouvernance et de gestion

95. Le Secrétariat de la CGPM a indiqué que les travaux entrepris au titre de cette composante englobaient des activités liées à l'établissement de plans de gestion pluriannuels, à la pêche INDNR et à l'harmonisation des indicateurs de l'état des stocks exploités dans le cadre d'une approche écosystémique. L'accent a été mis sur les conclusions de l'atelier consacré à un plan de gestion pluriannuel visant l'Adriatique (Croatie, mars 2013), qui ont été présentées à la deuxième réunion de validation des travaux du Groupe de travail pour la modernisation du cadre juridique et institutionnel de la CGPM. Il a été annoncé que des réunions seraient aussi organisées dans d'autres sous-régions.

96. Le délégué de la Croatie a reconnu l'utilité des plans de gestion pluriannuels pour assurer la conservation à long terme des pêches, notamment dans l'Adriatique où les stocks sont exploités par des flottilles de pêche d'États membres et non membres de l'UE. Il a donc demandé au CSC d'évaluer les dispositions techniques relevant du Règlement (CE) n° 1967/2006 concernant la hauteur de chute des filets pour les senneurs à senne coulissante dans le cas de la mer Adriatique.

97. Sur cette question, le délégué de l'UE a déclaré que le CSC pourrait aider à obtenir une vue d'ensemble technique et scientifique meilleure et actualisée des activités passées et présentes des senneurs à senne coulissante dans l'ensemble de la zone de compétence de la CGPM, sans se concentrer uniquement sur la mer Adriatique. Il faudrait cependant éviter que cette vue d'ensemble donne lieu à une évaluation critique de toute autre mesure existante adoptée par les membres de la CGPM.

98. Le Président et le Secrétaire exécutif ont souligné que la demande de la Croatie comportait des aspects techniques et que les délégations avaient la possibilité de soumettre des questions techniques et scientifiques à l'examen du CSC, afin qu'elles puissent être associées à des actions spécifiques traitant de questions analogues. Ils ont néanmoins déclaré que le CSC n'était pas compétent pour évaluer la pertinence des réglementations en matière de pêche adoptées par les membres de la CGPM.

Activités liées à la collecte et au cadre de communication de données

99. Le Secrétariat de la CGPM a présenté les progrès accomplis dans l'introduction du DCRF visant à améliorer le fonctionnement des systèmes de collecte des données. Il a été rappelé qu'une analyse critique des données de la CGPM ainsi que des exigences en matière d'information et des protocoles de transmission avait été réalisée et qu'une évaluation externe des systèmes nationaux à

partir des informations envoyées par les pays était en cours. La contribution positive des points de contact nationaux a été saluée, notamment en ce qui concerne la mise au point des cinq modèles de DCRF présentés aux réunions sous-régionales (Croatie, mars 2013 et Italie, mars 2013).

100. Le délégué de l'UE a remercié le Secrétariat de la CGPM pour l'excellent travail accompli dans des délais serrés. Il a estimé que les propositions avancées semblaient très prometteuses et a prévenu qu'il faudrait peut-être faire face à d'éventuelles réticences au progrès. Nonobstant les difficultés que pourraient rencontrer les membres de la CGPM en matière de collecte et transmission de données, une mise en œuvre progressive pourrait être envisagée à cet égard afin que les obligations au titre de la CGPM puissent être satisfaites à moyen terme.

101. Le Comité a décidé d'adopter les recommandations formulées au cours des dernières réunions sur la collecte des données et suggéré que le DCRF soit inclus dans le recueil des décisions de la CGPM dès qu'il serait achevé et adopté par la Commission.

Activités concernant la pêche artisanale

102. Le représentant du Secrétariat de la CGPM a présenté le premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire en s'appuyant sur le document GFCM:SAC15/2013/Inf.21. Le symposium a été conçu de manière à offrir une tribune et un espace de travail où les enjeux récurrents posés par la pêche artisanale pourraient être examinées. Ce symposium devrait être organisé en collaboration avec plusieurs partenaires, compte tenu de l'intérêt général suscité par la pêche artisanale, dont témoignent les Directives internationales de la FAO pour garantir des pêches artisanales durables.

103. Le Comité a été informé que différentes modalités avaient été prévues pour favoriser la participation des membres de la CGPM au symposium, y compris en tant que coorganisateurs et partenaires.

104. Le délégué de l'Égypte a souligné l'importance de la pêche artisanale et encouragé la FAO à poursuivre son travail sur ce thème dans le cadre de ses projets régionaux, notamment en ce qui concerne la collecte de données.

105. Le délégué de la Tunisie a de même suggéré qu'une attention accrue soit portée à la pêche artisanale et que les questions touchant à ses interactions avec d'autres secteurs (par exemple, l'aquaculture) soient examinées dans le cadre du symposium.

106. Faisant valoir qu'il était important de prendre en considération le problème des organisations et communautés de pêche artisanale marginalisées et inopérantes, le délégué du Liban a proposé que cette question soit dûment examinée lors des sessions thématiques proposées.

107. Le Comité a décidé qu'une note conceptuelle finale sur le symposium serait présentée à la Commission à sa trente-septième session et que les commentaires fournis par le CSC y seraient rapportés. Après avoir adopté cette note, la Commission pourrait approuver l'organisation du symposium.

Activités en matière de coopération sous-régionale

108. Le Secrétariat de la CGPM a fait le point sur l'initiative d'action concertée pour le Liban. Dans le prolongement de la réunion tenue en décembre 2012 au siège de la CGPM, il a été prévu d'organiser une réunion de suivi à Beyrouth en vue de l'adoption d'une feuille de route stratégique et d'un accord sur la voie à suivre pour identifier des bailleurs de fonds. Il a également été fait référence à l'assistance technique apportée à l'Égypte pour la mise au point d'un système de contrôle de ses flottilles de pêche.

109. La délégation du Liban a de nouveau exprimé sa gratitude à la CGPM pour les efforts déployés en vue de la formulation d'une feuille de route.

110. Le Comité s'est félicité de cette initiative, soulignant qu'elle pourrait être étendue à d'autres pays.

111. Le délégué de la Tunisie a indiqué que le FWP devrait donner priorité aux études de cas permettant de renforcer les capacités des membres de la CGPM. La mise en œuvre de mesures de gestion étant l'objectif ultime de la Commission, il a ajouté que le FWP devrait contribuer à garantir que les membres de la CGPM se conforment à ces mesures. À cette fin, les parties prenantes et le secteur de la pêche devraient être associés aux travaux, éventuellement dans le cadre de consultations nationales élargies semblables à celles envisagées pour le RMP-RC.

112. Le délégué de la Libye a invité le Secrétariat de la CGPM à soutenir les efforts de renforcement des capacités dans son pays. Il a été rappelé qu'une demande officielle de la Libye au Secrétariat de la CGPM était attendue à cette fin.

Diffusion, gestion des données et outils en ligne

113. M. Roberto Emma, du Secrétariat de la CGPM, a présenté un exposé sur les récents travaux en matière d'outils en ligne de gestion et de diffusion de données mis en place par le Secrétariat de la CGPM (à savoir, l'architecture informatique en nuage créée avec SharePoint Online et Windows Azure). La première phase de développement a été menée à bien et s'est traduite par l'établissement de bibliothèques de documents permettant de stocker et de diffuser l'intégralité du contenu produit par la CGPM, par la création de portail pour héberger les activités liées à ces travaux et par des procédures pour faciliter la présentation des données et le suivi de la conformité. M. Emma a également expliqué la procédure d'accès à ces outils en ligne reposant sur des identifiants sécurisés et des politiques d'accès. Il a souligné que le Secrétariat de la CGPM était notamment en train d'assurer la migration des systèmes actuels vers des bases de données Azure et de procéder à une évaluation qui intégrerait, entre autres, des fonctions rattachées aux systèmes d'information géographique (SIG).

114. Le Comité a pris acte de l'impressionnant travail effectué par le Secrétariat de la CGPM pour mettre au point ces outils et a reconnu le rôle qu'ils jouaient pour faciliter la collecte et la communication de données.

EXAMEN DU PLAN DE TRAVAIL PRÉLIMINAIRE DU CSC POUR 2013-2014

115. Ce point de l'ordre du jour a été présenté par le Président du CSC compte tenu des suggestions formulées par les sous-comités, telles que reproduites dans le document GFCM:SAC15/2013/2 et les rapports connexes (documents GFCM:SAC15/2013/Inf.6, Inf.7, Inf.8 et Inf.9).

116. Afin de faciliter le classement des activités proposées par ordre de priorité, un tableau regroupant toutes les propositions et leurs éventuelles sources de financement a été présenté par le Secrétariat. Sur cette base, et après un large débat, le Comité a approuvé son plan de travail pour 2013-2014, comme suit:

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

- Réaliser une analyse comparative des mesures de gestion visant à protéger le phoque moine (*Monachus monachus*) (Recommandation CGPM/35/2011/5);
- Analyser les différentes mesures possibles pour réduire les prises accidentelles de tortues et d'oiseaux de mer (Recommandations CGPM/35/2011/3 et CGPM/35/2011/4);
- Évaluer l'impact des espèces exotiques sur les pêches, établir un cadre efficace pour la collecte de données sur les quantités débarquées et explorer diverses pistes pour la

commercialisation des espèces toxiques envahissantes (pharmacologie, aquariophilie, cosmétique, etc.);
- Formuler un deuxième programme de recherche de trois ans sur les élasmobranches;
- Dresser un catalogue des engins et technologies de pêche utilisés dans la zone de la CGPM à partir des informations recueillies à travers le réseau TechnoMed;
- Encourager et appuyer les programmes de recherche sur le changement climatique, les débris marins et la pollution sonore sous-marine;
- Organiser un atelier d'une journée sur les récifs artificiels, dans le cadre de la dixième Conférence internationale sur les récifs artificiels et les habitats aquatiques apparentés (Izmir, Turquie, septembre 2013);
- Inclure des variables environnementales dans les formulaires d'évaluation des stocks, notamment pour les espèces de petits pélagiques;
- Élaborer des programmes de recherche à moyen terme pour définir des mesures de conservation des habitats profonds (monts sous-marins, canyons et populations de coraux profonds) et des stocks halieutiques qu'ils abritent, et promouvoir leur utilisation durable.

Sous-Comité sur les sciences économiques et sociales (SCSES)

- Organiser le premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire;
- Organiser un atelier régional sur la pêche de loisirs, éventuellement dans le prolongement immédiat du Symposium sur la pêche artisanale durable;
- Recueillir des données sur les impacts du poisson ballon à bande argentée (*Lagocephalus sceleratus*) en Méditerranée orientale;
- Préparer une proposition de révision des variables socio-économiques au titre de la Tâche 1.3, qui devra être validée par un petit groupe d'experts, au moyen d'une plateforme SharePoint prévue à cet effet;
- Préparer un document relatif aux impacts socio-économiques de certaines espèces envahissantes dans la zone de compétence de la CGPM;
- Préparer un examen sur les méthodologies d'évaluation économique des pêches de loisirs en général;
- Élaborer une méthodologie commune pour la réalisation d'analyses socio-économiques à l'appui de la gestion des pêches;
- Établir trois groupes de travail sur les méthodologies d'analyse socio-économique, la pêche aux petits métiers/pêche artisanale, et les pêches de loisirs;
- Organiser une session transversale du SCEEM/SCSES sur les impacts des changements climatiques, en mettant l'accent en particulier sur les répercussions socio-économiques des espèces envahissantes.

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

- Organiser la réunion du Groupe de travail sur les petits pélagiques et les espèces démersales immédiatement avant ou après les réunions des sous-comités;
- Organiser un atelier sur la définition et l'estimation de points de référence pour les stocks de petits pélagiques et d'espèces démersales, conformément aux directives de la CGPM sur les plans de gestion pluriannuels;
- Produire une publication biennale sur l'état des pêches de la Méditerranée et de la mer Noire présentant une vue d'ensemble des principales activités de recherche en cours;
- Mettre au point des méthodes et réaliser des études sur l'identification des unités de stocks, les schémas migratoires et les taux d'échange entre les métapopulations;
- Réaliser des enquêtes sur les stocks d'espèces lessepsiennes qui sont en compétition avec les stocks indigènes ou qui les ont remplacés en tant que cibles privilégiées de la pêche, et sur leur aptitude à supporter une pression de pêche intensive;
- Passer en revue les évaluations des stocks en tenant compte des variables environnementales, notamment pour les espèces de petits pélagiques (par exemple, sardines et anchois).

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

- Faciliter la communication au Secrétariat de la CGPM de données sur les flottilles par les membres de l'UE, en recherchant des modalités réalisables d'interaction avec le registre des flottilles de l'UE;
- Examiner, sur la base du premier cadre de référence pour la collecte de données (DCRF) de la CGPM, la périodicité des données socio-économiques actuellement recueillies au titre de la Tâche 1.3 ainsi que la liste des champs définis comme obligatoires dans le registre des navires de la CGPM;
- Organiser un atelier sur les nouveaux cadres de collecte et de communication de données, tel que défini dans le premier DCRF ;
- Faciliter l'information des utilisateurs finaux grâce à une documentation (brochures, manuels) leur permettant d'exploiter pleinement les possibilités du nouveau système créé sur SharePoint par le Secrétariat ;
- Organiser les réunions et activités requises prévues au titre du premier FWP.

Réunions

117. Le Comité a fixé comme suit la liste des réunions à venir:

Réunion	Lieu/Date[3]
(SCEEM) Atelier sur les récifs artificiels en Méditerranée et en mer Noire (en collaboration avec EastMed)	Izmir, Turquie 27 septembre 2013
Groupe de travail du SCES sur l'évaluation des stocks d'espèces démersales (cinq jours)	Monténégro 28 janvier-1 février 2014
Groupe de travail du SCES sur l'évaluation des stocks de petits pélagiques (cinq jours)	
Atelier du SCES sur la définition et l'estimation de points de référence pour les pêches de la Méditerranée et de la mer Noire	
Groupe de travail du SCSES sur l'établissement d'une méthodologie commune pour la réalisation d'analyses socio-économiques	
Quatorzième session du SCES	Monténégro 3-5 février 2014
Treizième session du SCEEM	
Treizième session du SCSI	
Treizième session du SCSES	
Seizième session du CSC	St. Julian's, Malte 17-21 mars 2014

[3] Les dates et lieux ont été actualisés au moment de l'impression.

118. Il a été dûment pris note de la liste des réunions prévues au titre du FWP pour 2013-2014:

Réunion	Lieu/Date[4]
Atelier sous-régional sur la collecte de données et les systèmes d'information sur les pêches en mer Noire	Varna, Bulgarie 22-24 avril 2013
Atelier sur la pêche INDNR, notamment les mesures de SCS et les flottilles (Méditerranée)	Tunis, Tunisie 3-4 octobre 2013
Atelier sous-régional sur la faisabilité de la mise en œuvre de plans de gestion pluriannuels (Méditerranée occidentale, centrale et orientale)	Tunis, Tunisie 7-10 octobre 2013
Premier Symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire	St. Julian's, Malte 27-30 novembre 2013
Atelier transversal SCSI/SCES/SCSES sur les nouveaux cadres de collecte et de communication de données, en particulier celui de la CGPM (DCRF)	Monténégro 3-5 février 2014
Atelier sur la faisabilité de la mise en œuvre de plans de gestion pluriannuels en mer Noire	Trabzon, Turquie 24-25 février 2014
Réunion de lancement du projet de coopération pour l'utilisation durable des ressources biologiques marines de la Méditerranée	TBD

119. Le CSC a pris note de l'offre formulée par certains États membres de la CGPM d'accueillir des réunions, sous réserve de confirmation par leurs autorités compétentes.

ÉLECTION DU BUREAU ET CONFIRMATION DE LA NOMINATION DES COORDONNATEURS DES SOUS-COMITÉS

120. Le Comité s'est déclaré particulièrement satisfait du travail accompli par le CSC sous la direction du Bureau actuel, déjà réélu pour un mandat de deux ans.

121. Faute de candidature, le Comité a décidé que la question de l'élection du Bureau du CSC serait examinée par la Commission, à sa trente-septième session (Split, mai 2013).

122. Le Comité a approuvé la nomination de M. Federico Álvarez Prado, M. Francesco Colloca, M. Scander Ben Salem et M. Alaa Eldin El-Haweet, en tant que coordonnateurs du SCEEM, du SCES, du SCSES et du SCSI respectivement, pour un mandat de deux ans.

QUESTIONS DIVERSES

123. Aucune autre question n'a été soulevée.

DATE ET LIEU DE LA PROCHAINE SESSION

124. Le Comité a décidé que le lieu et la date de la prochaine session du CSC seraient arrêtés par la Commission, à sa trente-septième session[4].

ADOPTION DU RAPPORT

125. Le rapport, annexes comprises, a été adopté le jeudi 11 avril 2013.

[4] Les dates et lieux ont été actualisés au moment de l'impression

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-sixth session of GFCM concerning the management of fisheries
   - Report by the Chairperson: overview of SAC achievements during the intersession
   - Specific action in the Black Sea
   - Research activities by member countries
   - Major activities and initiatives of the FAO regional projects
4. **Formulation of advice in the field of fishery management and research**
5. **Review of the relevant Task Force activities concerning the SAC**

   5.1. **Review of SAC issues addressed within the amendment of the GFCM legal framework**

   5.2. **Review of activities under the first phase of the GFCM Framework Programme**
6. **Review of SAC preliminary work plan for 2013–2014**
7. **Election of SAC Bureau and endorsement of subcommittees coordinators nominations**
8. **Any other matter**
9. **Date and place of the next session**
10. **Adoption of the report**

Annexe A

Ordre du jour

1. **Ouverture et organisation de la session**
2. **Adoption de l'ordre du jour**
3. **Activités intersessions**
   - Examen des recommandations formulées par la Commission générale des pêches pour la Méditerranée à sa trente-sixième session au sujet de la gestion des pêches
   - Rapport du Président: vue d'ensemble des réalisations du CSC durant la période intersessions
   - Action spécifique en ce qui concerne la mer Noire
   - Activités de recherche entreprises par les États membres
   - Principales activités et initiatives des projets régionaux de la FAO
4. **Formulation de conseils dans le domaine de la gestion et de la recherche halieutiques**
5. **Examen des activités du Groupe de Travail intéressant le CSC**

   5.1 **Examen des questions intéressant le CSC compte tenu de l'amendement du cadre juridique de la CGPM**

   5.2 **Examen des activités qui relèvent de la première phase du programme cadre de la CGPM**
6. **Examen du plan de travail préliminaire du CSC 2013-2014**
7. **Élection du Bureau et confirmation de la nomination des coordinateurs des sous-comités**
8. **Questions diverses**
9. **Date et lieu de la prochaine session**
10. **Adoption du rapport**

Appendix B/Annexe B

List of participants / Liste des participants

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Appendix C

List of documents

GFCM:SAC15/2013/1	Agenda and Timetable
GFCM:SAC15/2013/2	Executive Report for the SAC intersessional activities
GFCM:SAC15/2013/Inf.1	List of documents
GFCM:SAC15/2013/Inf.2	List of participants
GFCM:SAC15/2013/Inf.3	Report of the thirty-sixth session of the General Fisheries Commission for the Mediterranean (GFCM) (Morocco, 14–19 May 2012)
GFCM:SAC15/2013/Inf.4	Report of the fourteenth session of the Scientific Advisory Committee (SAC) (Bulgaria, 20–24 February 2012) (bilingual)
GFCM:SAC15/2013/Inf.5	Statement of Competence and Voting Rights by the European Union and its Member States
GFCM:SAC15/2013/Inf.6	Report of the thirteenth session of the Sub-Committee on Marine Environment and Ecosystems (SCMEE) (Italy, 18–20 February 2013) (Available in English only)
GFCM:SAC15/2013/Inf.7	Report of the thirteenth session of the Sub-Committee on Statistics and Information (SCSI) (Italy, 18–20 February 2013) (Available in English only)
GFCM:SAC15/2013/Inf.8	Report of the thirteenth session of the Sub-Committee on Economic and Social Sciences (SCESS) (Italy, 18–20 February 2013) (Available in English only)
GFCM:SAC15/2013/Inf.9	Report of the fourteenth session of the Sub-Committee on Stock Assessment (SCSA) (Italy, 18-–-20 February 2013) (Available in English only)
GFCM:SAC15/2013/Inf.10	Research activities in Member Countries
GFCM:SAC15/2013/Inf.11	Report of the SCSA Working Group on Stock Assessment of Demersal Species (Croatia, 5–9 November 2012) (Available in English only)
GFCM:SAC15/2013/Inf.12	Report of the SCSA Working Group on Stock Assessment of Small Pelagic Species (Croatia, 5–9 November 2012) (Available in English only)
GFCM:SAC15/2013/Inf.13	Report of the Workshop on Mediterranean gears, fishing technology and selectivity – in collaboration with CopeMed (Morocco, 26–30 November 2012) (Available in English only)
GFCM:SAC15/2013/Inf.14	Report of the workshop on age determination of elasmobranchs in the GFCM area (Turkey, 8–12 October 2012) (Available in English only)
GFCM:SAC15/2013/Inf.15	Major activities of the FAO regional projects (Available only in English)
GFCM:SAC15/2013/Inf.16	GFCM Data Collection Reference Framework (DCRF). General introduction and steps forward (Available in English only)
GFCM:SAC15/2013/Inf.17	Excerpt of the report of the Framework Programme (FWP) Workshop on fisheries data collection in the Western, Central and Eastern Mediterranean Sea (Italy, 25–27 March 2013) (Available in English only)
GFCM:SAC15/2013/Inf.18	Report of the Framework Programme (FWP) Workshop on fisheries data collection and management plans in the Adriatic sea (Croatia, 20–22 March 2013) (Available in English only)
GFCM:SAC15/2013/Inf.19	Report of the joint GFCM/BSC workshop on IUU fishing in the Black Sea (Turkey, 25–27 February 2013) (Available in English only)
GFCM:SAC15/2013/Inf.20	Report of the Concerted Action for Lebanon meeting (Italy, 3–4 December 2013) (Available in English only)

GFCM:SAC15/2013/Inf.21	Conceptual note for the first GFCM regional Symposium on sustainable artisanal fisheries in the Mediterranean and the Black Sea (October/November 2013) (Available in English only)
GFCM:SAC15/2013/Inf.22	Draft adaptative management plan for red coral in the GFCM competence area (Available in English only)
GFCM:SAC15/2013/Dma.1	Elasmobranchs of the Mediterranean and Black sea: status, ecology and biology. Bibliographic analysis (by Bradai M.N., Saidi B. and Enajjar S.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 91.
GFCM:SAC15/2013/Dma.2	Review of jellyfish blooms in the Mediterranean and Black Sea (by Boero F.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 92.
GFCM:SAC15/2013/Dma.3	Age determination of elasmobranchs, with special reference to Mediterranean species: A technical manual (by Campana S.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 94. (Advance copy)

Annexe C

Liste des documents

GFCM:SAC15/2013/1	Ordre du jour et calendrier
GFCM:SAC15/2013/2	Rapport exécutif du Comité scientifique consultatif (CS) durant la période intersession
GFCM:SAC15/2013/Inf.1	Liste des documents
GFCM:SAC15/2013/Inf.2	Liste des participants
GFCM:SAC15/2013/Inf.3	Rapport de la trente-sixième session de la Commission générale des pêches pour la Méditerranée (CGPM (Maroc, 14-19 mai 2012)
GFCM:SAC15/2013/Inf.4	Rapport de la quatorzième session du Comité scientifique (CSC) (Bulgarie, 20-24 février 2012) (bilingue)
GFCM:SAC15/2013/Inf.5	Déclaration des compétences et droits de vote de l'Union européenne et de ses États membres
GFCM:SAC15/2013/Inf.6	Rapport de la treizième session du Sous-comité de l'environnement et des écosystèmes marines (SCEEM) (Italie, 18-20 février 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.7	Rapport de la treizième session du Sous-comité des statistiques et de l'information (SCSI) (Italie, 18-20 février 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.8	Rapport de la treizième session du Sous-comité des sciences économiques te sociales (SCSES) (Italie, 18-20 février 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.9	Rapport de la quatorzième session du Sous-comité de l'évaluation des stocks (SCES) (Italie, 18-20 février 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.10	Activités de recherche dans les Etats membres (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.11	Rapport du Groupe de travail du SCES sur l'évalusation des stocks d'espèces démersales (Croatie, 5-9 novembre 2012) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.12	Rapport du Groupe de travail du SCES sur l'évaluation des stocks d'espèces de petits pélagiques (Croatie, 5-9 novembre 2012) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.13	Rapport de l'atelier sur les engins et la technologie de pêche et la sélectivité – en collaboration avec CopeMed (Maro, 26-30 novembre 2012) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.14	Rapport de l'atelier sur la détermination de l'âge des élasmobranches dans la zone de compétence de la CGPM (Turquie, 8-12 octobre 2012) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.15	Principales activités des projets régionaux de la FAO (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.16	Cadre de référence de la CGPM pour la collecte de données (DCRF). Présentation générale et prochaines étapes (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.17	Extrait du rapport de l'atelier du Programme-cadre de la CGPM sur la collecte de données des pêches en Méditerranée occidentale, centrale et orientale (Italie, 25-27 mars 2013) (disponible en anglais seulement)

GFCM:SAC15/2013/Inf.18	Rapport de l'atelier du Programme-cadre de la CGPM sur la collecte de données des pêches et les plans de gestion en mer Adriatique (Croatie, 20-22 mars 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.19	Rapport de l'atelier conjoint CGPM/Commission de la mer Noire sur la pêche INDNR en mer Noire (Turquie, 25-27 février 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.20	Rapport de la réunion sur l'Action concertée pour le Liban (Italy, 3-4 décembre 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.21	Note conceptuelle sur le premier Symposium sur la pêche artisanale durable en Méditerranée et en mer Noire (octobre/novembre 2013) (disponible en anglais seulement)
GFCM:SAC15/2013/Inf.22	Projet de plan de gestion adaptative du corail rouge dans la zone de compétence de la CGPM (disponible en anglais seulement)
GFCM:SAC15/2013/Dma.1	Elasmobranchs of the Mediterranean and Black sea: status, ecology and biology. Bibliographic analysis (by Bradai M.N., Saidi B. and Enajjar S.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 91. (disponible en anglais seulement)
GFCM:SAC15/2013/Dma.2	Review of jellyfish blooms in the Mediterranean and Black Sea (by Boero F.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 92. (disponible en anglais seulement)
GFCM:SAC15/2013/Dma.3	Age determination of elasmobranchs, with special reference to Mediterranean species: A technical manual (by Campana S.). Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 94. (Copie préliminaire) (disponible en anglais seulement)

Appendix D / Annexe D

New standard format for national reports / Nouveau modèle pour les rapports nationaux
(in English only/en anglais seulement)

FORMAT FOR THE PREPARATION OF NATIONAL REPORTS/ MODÈLE POUR LA PRÉPARATION DES RAPPORTS NATIONAUX

Description of the fisheries

Provide the following information (use tables provided where appropriate):
Description of the fishing grounds and GSA.
Total landings by group of targeted species.
Total landings by species (estimated if needed)

Fleet:

- number of vessels by fleet segment (Tables will be provided). Indicate updates from last year.
- LOA (range and average)
- Total KW (or HP) + GT (or GRT)

Status of stocks of priority species

Indicate the species evaluated during the intersessional period expressing the exploitation status for each stock. The report should also indicate the geographical sub-areas covered by the assessment and whether those have been presented to the GFCM Working Groups or to any other instances.

Status of the statistics and information system

Description of the national system of fishery statistics and/or any improvement/change occurred. 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 . Type of data collected, transmission to GFCM Secretariat and other international bodies. Inventory of existing databases. Synergies with other applications.

Status of research in progress

Description of the results of the continuing and in progress research projects of interest to GFCM Sub-Committees and Working Groups, with particular emphasis on management oriented assessment and GFCM priority species.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

Description of the achievement and/or progress in activities related to the national research on the socio-economic aspects of the fishing communities and fishing sector.

Marine environmental studies in progress

Description of the main results from actions and studies carried out during the intersessional period which are relevant to the impact of the marine environment changes on the priority stocks and on the ecosystem alteration originated by the fisheries activities.

Involvement in activities of FAO regional projects

Description of activities carried out during the intersessional period by Regional Projects, level of involvement, results obtained and assistance received.

Management measures

Description of the management measures (legislation, regulations, etc) taken in direct response to GFCM recommendations during intersessional period **including the assessment of their effects**

Environment protection measures

Description of recent activities in establishing reserve areas during the intersession; and, whenever relevant scientific information do exist, highlighting the roles of existing marine protected areas in securing better opportunity for the sustainability of fish stocks.

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*

If derogation of Paragraph 4 *"CPCs shall ensure the prohibition of the exploitation of red coral populations at depth less than 50 m until scientific studies, as validated by GFCM-SAC, indicate otherwise"* is applicable, provide detailed information on the national management framework and the studies carried out at national level to apply this derogation.

With regard to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area*

Provide information on by-catch rates of cetaceans taking into account, amongst other relevant information: fisheries concerned, characteristics of gear type, times, locations (either by GSA or statistical rectangles) and affected cetacean species.

With regard to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*

Provide information on fishing activities, catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol.

Other recommendations will be added (eventually) when they request specific information to be transmitted through National Reports to SAC.

Proposals for future research programmes

Appendix E / Annexe E

Stock assessements as reviewed by SAC / Évaluations des stocks examinées par le CSC
(in English only/en anglais seulement)

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

GSA	Species	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
Combined GSA 01, GSA 02, GSA 03 and partially GSA 04 - Alboran Sea	Anchovy, *Engraulis encrasiclous*			This stock is not considered to be formally assessed	This assessment exercise was carried out by a COPEMED II Study Group. The WG endorsed the SG recommendations to improve data collection and to test bioeconomic models in this fishery.	SC does not comment the advice as the stock is considered as not formally assessed. The SC appreciated the effort to develop a joint international assessment under the COPEMED II project framework.	------
Combined GSA 01, GSA02 and GSA 03 - Alboran Sea	Sardine, *Sardina pilchardus*	VIT	High exploitation rate: average operating E is estimated at 0.43 (slightly higher than the threshold value F / Z = 0.4 as suggested biological reference point for small pelagic (Patterson, 1992)). Stock is in overfishing	Preliminary assessment: no advice can be provided.	The WG informally proposed to reduce the level of fishing mortality by 30%. However, the assessment is considered preliminary so no formal advice is provided. The WG endorsed the COPEMED SG recommendations on continue standardization of the methods used in the different countries.	SC does not comment the advice as the assessment is considered preliminary. Some clarification on the methodology and the reference points used is required for future assessment. The SC appreciated the effort to develop a joint international assessment under the COPEMED II project framework	-----
GSA 04 – (only Alboran Sea area)	Sardine, *Sardina pilchardus*	Shaefer model and a preliminary length cohort analysis with VIT.	Fully exploited.	Preliminary assessment: no advice can be provided.	The WG recommends continuing with this exercise and combining the data of the Alborán Sea into a joint assessment.	SC does not comment the advice as the assessment is considered preliminary. An updated assessment using only VIT was presented to the SC. The SC regards this assessment as preliminary and suggests continuing efforts to improve data and methods used.	-----

GSA	Species	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 07 - Gulf of Lion	Sardine, *Sardina pilchardus*	Direct method by acoustics and CPE	Very Low exploitation rate. Fully exploited with no room for further expansion.	Fishing mortality is already low and should not increase until the stock recovers	The WG acknowledged that recruitments since 2008 have been the highest of the 2001-2012 available time series, while the adult biomasses between 2008-2011 have been the lowest ones in the same time series, indicating that recruitment is not incorporated into adult population. The WG recognised that 2012 show a larger biomass than that observed since 2008. However, the WG recommends that this trend should be confirmed in next years before it can be considered into the advice on stock status.	The SC understands the difficulties in applying the stock status advice terminology for this stock (very low fishing pressure and abundance possible related to ecological reasons). However the SC recommends using the word "collapsed" to describe this stock. The advice should therefore be to reduce or close the fishery until recovery. Clarification on the biomass used to obtain harvest rates is required for future assessments. A recommendation to test the feasibility of analytical methods to facilitate advice is made.	SAC highlights that the current state of the stock is believed to be related to ecological and/or environmental reasons. Therefore it concludes that the word "collapse" does not fully apply. SAC advice is that the stock is under some environmental stress and that human exploitation should be kept to minimum to maximize potential for stock recovery
GSA 07 - Gulf of Lion	Anchovy, *Engraulis encrasiclous*	Direct method by acoustics and CPUE	Low exploitation rate and fully exploited, low commercial-sized anchovy abundance	Fishing mortality should not be allowed to increase	Although biomass is more or less stable in this stock since 2005, with a slight increasing trend, anchovy sizes remains low in comparison with years previous to 2005.	The SC endorsed the advice on stock status. The SC understands the difficulties in applying the stock status advice terminology for this stock (very low fishing pressure and abundance possible related to ecological reasons). A recommendation to test the feasibility of analytical methods to facilitate advice is made.	The SAC endorsed the advice.
GSA 16 – Southern Sicily	Sardine, *Sardina pilchardus*	Harvest Rate and Surplus production model (BioDyn)	Low to moderate exploitation rate (harvest rate = 11.9%). Sustainable exploited with a low abundance, slightly increasing in the last years	Fishing mortality should not be allowed to increase	The WG informs that there are market constraints that control the main target of the pelagic species fishery, but also due to the multispecies characteristics of the fishery, a common management may be needed.	The SC endorses the advice. The SC recommends using the analytically derived reference points (MSY related reference points) to provide advice on the status of this stock until further research on empirical precautionary reference points is conducted.	The SAC endorsed the advice.
GSA 16 – Southern Sicily	Anchovy, *Engraulis encrasiclous*	Harvest Rate and Surplus production model (BioDyn)	High exploitation rate. Overexploited status.	Fishing mortality should be reduced by means of a multi-annual management plan until there is evidence for stock recovery	The WG informs that there are market constraints that control the main target of the pelagic species fishery, but also due to the multispecies characteristics of the fishery, a common management may be needed.	The SC endorsed the advice. The SC recommends using the analytically derived reference points (MSY related reference points) to provide advice on the status of this stock until further research on empirical precautionary reference points is conducted.	The SAC endorsed the advice.

GSA	Species	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 17 – Northern Adriatic Sea	Sardine, *Sardina pilchardus*	VPA, ICA and acoustic survey	Exploitation rate is higher than the Patterson's reference point (E=0.52). Fully exploited with no room for further expansion	Fishing mortality should not be allowed to increase	The WG recognised that spatial distribution of shared stock of sardine is not limited to GSA17 area only, but it is extended in GSA18 area also. Therefore, the WG suggests that future assessments try to take into account combined data from these two GSAs.	The SC endorsed the advice. The SC highlights that there has been a strong increase in F against previous recommendations from the SAC. The SC recommends that biomass reference points should be revised. As this is a multispecies fishery, advice should be done together with anchovy in GSA 17	The SAC endorsed the advice.
GSA 17 – Northern Adriatic Sea	Anchovy, *Engraulis encrasiclous*	VPA, ICA and acoustic survey	Moderate exploitation rate (E = 0.4). Sustainably exploited.	Fishing mortality should not be allowed to increase	The WG recognised that spatial distribution of shared stock of anchovy is not limited to GSA17 area only, but it is extended in GSA18 area also. Therefore, the WG suggests that future assessments try to take into account combined data from these two GSAs.	The SC endorsed the advice. The SC highlights that there has been a strong increase in F against previous recommendations from the SAC. The SC recommends that biomass reference points should be revised. As this is a multispecies fishery, advice should be done together with sardine in GSA 17	The SAC endorsed the advice.
GSA 18 – Southern Adriatic Sea	Anchovy, *Engraulis encrasiclous*	DEPM	Since this is just a preliminary estimation it is not possible to diagnose the status of the anchovy stock in GSA 18 based on the DEPM investigation.	This stock is not considered to be formally assessed	Low fishing pressure in eastern GSA 18, especially in Montenegro. Higher fishing pressure in the western GSA18, although part of the fleet also operates in GSA17. The WG recommends to continue with both Acoustic and DEPM direct estimation methods, while improving the quality of the landings data in order to estimate an exploitation rate	The SC does not comment the advice as the stock is considered not to be formally assessed.	--

GSA	Species	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 29 – Black Sea	Sprat, *Sprattus sprattus*	ICA	Moderate exploitation rate. Sustainably exploited	Status quo exploitation for 2012 which implies catches of 100000 tons not to be exceeded	This assessment has previously been presented to an STECF EG.	The SC endorsed the advice.	The SAC endorsed the advice. The fact that the assessment was done with 2 years lag is highlighted
GSA 29 – Black Sea	Horse mackerel, *Trachurus mediterraneus ponticus*	Separable VPA	Uncertain exploitation rate. High fishing mortality, but exploitation rate is uncertain	Preliminary assessment: no advice can be provided.	The WG recommends to continue efforts to develop joint surveys, regional coordination in the sampling process and development of a fishery information system	The SC does not comment the advice as the assessment is considered preliminary. The SC endorses the WG recommendations to improve data collection for this stock.	--

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

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 01	European hake *(Merluccius merluccius)*	Catch, Lfreq catch & trawl surveys	2003-2011	XSA tuned with CPUE from commercial fleet and MEDITS data.	Overfishing (Fcurr/F0.1=5.4)	From a precautionary approach and taking into account the estimated reference points MSY proxies (F0.1, F40%SSB and F30%SSB), a reduction of the current fishing mortality is recommended by reducing the effort activity and improving the selection pattern of the fishery.	The statement "low abundance" is very vague. A quantitative way should be found to support it. Time series are often short and do not provide the appropriate basis to set up a baseline for sound comparison. Assessment and recommendations endorsed	The SC endorsed the advice. The SC recommends improving the exploitation pattern reducing juvenile catches.	The SAC endorsed the advice.
GSA 05	European hake *(Merluccius merluccius)*	Catch, effort, Lfreq catch & trawl surveys	2000-2011	XSA and Y/R analysis	Overfishing (Fcurr/F0.1=9.2)	To reduce fishing mortality. The use of the information from the vessel monitoring system will help improve the knowledge about the spatial distribution of the fishing effort.	It was suggested to include a plot of the spawning stock biomass against recruitment. Assessment and recommendations endorsed	The SC endorsed the advice. An extra effort to understand SSB/R relationship is recommended.	The SAC endorsed the advice.
GSA 06	European hake *(Merluccius merluccius)*	Catch, effort, Lfreq catch, trawl surveys	1999-2011	XSA, Y/R analysis, FLR predictions	Overfishing (Fcurr/F0.1=10.0)	A reduction in trawling fishing effort, along with a reduction of gillnet and long lining effort, in the context of a multi-annual management plan taking into account the multi-species landings of the trawl is recommended.	The assessment was found to contain contradictions, as the SSB increased while the recruitment decreased over the studied time period. An explanation to this pattern should be provided. Several checks have been proposed: analyse changes occurring in the fisheries (effort over time for each gear), compare recruitment data to the age 0 MEDITS index, compare commercial CPUEs with MEDITS index and compare the outputs of separable VPA to a classical VPA run. In that context, the statement "low level of SSB" would need further clarifications. Assessment and recommendations endorsed	The SC endorsed the advice. The discrepancy between biomass and recruitment, as well as possible confounding signals between the catch by age and the survey at age data should be further investigated.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 07	European hake *(Merluccius merluccius)*	Catch, effort, Lfreq catch, trawl surveys	1998-2011	XSA, Y/R analysis	Overfishing characterized by growth overexploitation with periodically higher recruitments (1998, 2001-2002 and 2007). Since 2007, the recruitment has reached the lowest level of the historical series 1998-2011 (Fcurr/F0.1=11.2)	To reduce growth overfishing: - Improve the fishing pattern of the trawl to arise the minimum length of catches equal to the minimum legal landing size; - close nursery areas at least temporally; - Reduce the effort of trawl, from reducing time at sea, number of fishing boats, engine power, Bollard pull and/or trawl size; To avoid recruitment overfishing: - Reduce the effort of longliners and gillnetters in order to increase (or at least maintain) the SSB; - Establish temporal closures for longliners and gillnetters during the period of maximum spawning (end of autumn and beginning of winter, main peak of spawning period); Freeze of the effort in the Fishery Restricted Area.	Comments such as the one about management measures currently in force (destruction of boats, temporary closures for trawlers, etc.) should be included in the stock assessment forms as well as in the report. It was also suggested to show a plot of the size distributions at least for the last three years, which could help to identify trends as well as a plot of the spawning stock biomass against recruitment. The WG endorsed the assessment and recommendations	The SC endorsed the advice. Same problems on the SSB and R relationships as in other hake stocks exist.	The SAC endorsed the advice.
GSA 12, 13, 14, 15, 16	European hake *(Merluccius merluccius)*	Catch & Lfreq catch	2010-2011	LCA, Y/R analysis	Stock is in overfishing status and low abundance. The stock is characterized by growth overexploitation. (Fcurr/F0.1=3.6)	To reach F0.1, current fishing mortality should be reduced by more than 80% in optimistic scenario. - The fishing pattern is essentially oriented to the juvenile fraction, so to reduce growth overfishing, management of this species should be oriented towards increasing direct and indirect selectivity pattern of the trawl in order to increase the minimum length of catches up to the minimum legal landing size. - Reduce the effort of trawlers targeting especially the juvenile fraction of the stock, from reducing time at sea, number of fishing boats, engine power. - It is not excluded that the stock is shared with adjacent subareas so it is recommended to proceed to joint assessment integrating CopeMed Area.	Since two growth hypotheses are presented, the choice between both is not clear. It was suggested that the hypothesis with a higher L could be favored. The WG considered this assessment preliminary because of the shortness of the time series considered. Two years of data were available.	SC does not comment the advice since the assessment is considered preliminary. The SC appreciated the effort to develop a joint international assessment under the MedSudMed project framework.	---

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 18	European hake *(Merluccius merluccius)*	Catch, effort, Lfreq catch, trawl surveys	1996-2011	SURBA, Y/R, LCA	The stock is in overfishing and thus it is necessary to consider a considerable reduction of the fishing mortality to allow the achievement of F0.1 (Fcurr/F0.1=4.4)	Consider a remarkable reduction of the fishing mortality. The reference point F0.1 can be gradually achieved by multiannual management plans that foresee a reduction of fishing mortality through fishing limitations. As observed in 2011, the fishing mortality from the Italian bottom trawlers represents about 80% of the total F in the GSA and that of the Italian longlines is accounting for about 9.5%, with an overall percentage of about 90%, while Montenegrin trawlers account only for about 1% of the F exerted on hake in the GSA and Albanian trawlers of about 9.7%. Moreover, the production of hake in GSA 18 is split in 12.5% caught by Italian longlines, 77.2% by Italian trawlers, about 1% by Montenegrin trawlers and about 9.4% by Albania trawlers.	The WG endorsed the assessment and recommendations	The SC endorsed the advice. The SC appreciated the effort to develop a joint international assessment under the AdriaMed project framework.	The SAC endorsed the advice.
GSA 01-03	Blackspot seabream, *Pagellus bogaraveo*	Lfreq catch	2009-2011	LCA and Y/R analysis	Stock is in overfishing status (Fc=0,194 higher than F0.1=0.113 and F40%MSY=0.120) and overexploited (MSY=331 t lower than Y at F0.1=473 t and Y at 40%=481 t). (Fcurr/F0.1=1.7)	Reduce the effort level to set the fishing mortality level to a more sustainable value. Rationalize the management of this resource by establishing similar management measures in both countries (Morocco and Spain).	Three scenarios on Fterminal were presented for the VIT analysis. The rationale behind the choice of the retained Fterminal could be stated more clearly, even though results were qualitatively similar. It was also recommended to compare the reference points obtained by the Yield per recruit approach with those obtained from the three scenarios using VIT. Finally, it was noted that overexploitation should be assessed based on biomass. The WG endorsed the assessment and recommendations.	The SC endorsed the advice. In order to assess if the stock is overexploited the SC recommends estimating BMSY instead of catch at MSY to be compared with the current stock biomass. Clarification on the methods applied (i.e. DCAC model), terminology and data used for the assessment is required. The SC appreciated the effort to develop a joint international assessment under the Copemed project.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 15-16	Common Pandora, *Pagellus erythrinus*	Trawls surveys, catch & Lfreq catch	2006-2011	LCA, XSA and Y/R analysis	Overfishing. As a consequence F needs consistent reduction from the current F towards the candidate limit reference point for long term sustainability based on F0.1. (Fcurr/F0.1=2.4)	Based on the results of the XSA performed, a reduction of about ~60% of the fishing mortality is needed to reach the technical target reference point F0.1; at present both SSB and recruitment show clear decreasing trends. A progressive reduction of current F through consistent effort reduction and an improvement in current exploitation patterns are recommended. In this context a multi-annual management plan to be implemented at GSA 15 and 16 taking into account the effects of the different gears targeting different life stages of common Pandora is advisable.	The VIT analysis showed an anomaly in 2009. The origin of this anomaly should be explained, and also why this anomaly has not been observed when running the XSA analysis. In addition, the XSA analysis was applied on 6 years data while the maximum age was 7 years, which does not allow the analysis to cover a complete cohort. At least 7 years should be needed to an adequate XSA run. The VIT analysis has been applied on single years, while the GFCM recommendations specify that years should be lumped together when using this approach. This remark was also addressed at the end of the sessions and a general recommendation is done in the last section of this report. The sensitivity of the results to the use of yearly or lumped data should be tested	The SC endorsed the advice. The SC recommends better explaining the approach used to estimate reference points for the stock. Some of the parameters included in the individual report and the stock assessment form need to be checked.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 17	Common sole, *Solea solea*	Trawls surveys, catch, Afreq catch & Lfreq catch	2004-2011	XSA, Surba, SS3, VIT	Overfishing. Current F (2011) estimated with different model comprised between 0.73 and 1.43 and higher than the proposed reference point (F0.1 = 0.26 as a proxy of FMSY). (Fcurr/F0.1=5.5)	A reduction of fishing pressure would be recommended, also taking into account that the exploitation is mainly orientated towards juveniles and the success of recruitment seems to be strictly related to environmental conditions. This could be achieved by a two-months closure for rapido trawling inside 11 km (6 nm) offshore along the Italian coast, after the fishing ban. Moreover, information provided by VMS will be useful in order to quantify the fishing effort of rapido trawlers in such area and period. Finally, specific studies on rapido trawl selectivity are necessary. In fact, it is not sure that the adoption of a larger mesh size would correspond to a decrease of juvenile catches. The same uncertainty regards the adoption of square mesh.	The group considered the use of the SS3 method as a good initiative. Comparisons of outputs with classical approaches should be done.	The SC endorsed the advice on stock status. The purposes of the associated management recommendations from the WG are however not completely explained in the text, therefore the SC recommends to incorporate all information that leads to the recommendation in future reports.	The SAC endorsed the advice.
GSA 05	Striped red mullet, *Mullus surmuletus*	Catch & trawl surveys	2000-2011	XSA and Y/R analysis	Overfishing (Fcurr/F0.1=3.1)	To reduce fishing mortality. The use of the information from the vessel monitoring system will help to improve the knowledge about the spatial distribution of the fishing effort.	No particular comment. Assessment and recommendation endorsed	The SC endorsed the advice. The recommendation to use VMS for the assessment/management of the stock is not sustained in the assessment sheet presented to the WG. The SC recommends incorporating all information and discussion that lead to the recommendation given in future reports.	The SAC endorsed the advice.
GSA 07	Red mullet, *Mullus barbatus*	Trawl surveys	2004-2011	XSA, Y/R	Overfishing (high fishing mortality and intermediate abundance) with periodically higher recruitments (2006 and 2010) (Fcurr/F0.1=2.5)	Reduce effort of trawl, by reducing the time at sea, the number of fishing boats, the engine power, the Bollard pull and/or trawl size.	No particular comment. Assessment and recommendation endorsed	The SC endorsed the advice on stock status. The SC recommends modifying the advice as follows: “reduce fishing mortality by means of effort and catch limitations”.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 15-16	Red mullet, *Mullus barbatus*	Trawls surveys, catch, Afreq catch & Lfreq catch	2006-2011	VIT XSA tuned by MEDITS SURBA	The WG proposed F0.1 = 0.45 as proxy of FMSY and as the exploitation reference point consistent with high long term yields. Taking into account the results obtained by the XSA analysis (current F0-4 is around 1.3), the stock is considered in overfishing. (Fcurr/F0.1=2.9)	Reduce the relevant fleets'effort and/or catches until fishing mortality is below or at the proposed FMSY level, in order to avoid future loss in stock productivity and landings. This should be achieved by means of a multi-annual management plan taking into account mixed-fisheries considerations. The current high discarding rate of juveniles of the 0 group needs to be reduced by improving the trawl net selectivity (i.e. adoption of sorting grids) and through the reduction of fishing effort on the continental shelf in autumn.	The discussion was focused on the identification of stock units in the Strait of Sicily. Red mullet is a typical coastal resource, the peculiarity of the Strait of Sicily (two shelves - the European and the African ones-separated by narrow deep bottoms) supports the hypothesis of the existence of different subpopulations in the area and thus the occurrence of a stock unit confined in GSAs 15 and 16. The WG discussed the recent change in the exploitation pattern of the trawl fleet of the 12-24 m LOA which can justify the observed decline in fishing mortality in recent years. SURBA displayed an increase in biomass, but the analysis showed a general decrease in the stock. It was noted that the survey data has a longer time extent that allowed to display a long-term increase, whereas the analysis captured a short-term decrease. It was suggested to consider the reference in time-scale. The WG endorsed the assessment and recommendations.	The SC endorsed the advice.	The SAC endorsed the advice.
GSA 07	Black-bellied anglerfish, *Lophius budegassa*	Trawls surveys, catch, Afreq catch & Lfreq catch	2009-2011	LCA/XSA	Following the Y/R methodology, in 2011 F0.1=0.292 and F2- 4=0.972, the stock seems to be in an overexploitation status, but this assessment was considered preliminary. (Fcurr/F0.1=3.3)	The assessment is considered preliminary. Hence, no management advice can be given	The authors wanted to keep this assessment as preliminary although 3 years of VIT analysis was considered enough to accept the assessment. However, because of the lack of information on biological parameters and fisheries independent data, this assessment was kept preliminary	The SC does not comment the advice since the assessment is considered preliminary.	---

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 15-16	Black-bellied anglerfish, *Lophius budegassa*	Trawl surveys & Lfreq catch	2002-2011	LCA, VIT , Surba	F0.1 = 0.16 was proposed as proxy of FMSY and as the exploitation reference point consistent with high long term yields. Taking into account the results obtained by the VIT analysis (current F1-7 is around 0.30), the stock is considered in overfishing. (Fcurr/F0.1=1.9)	Based on the results of the VIT, the WG recommends the relevant fleets' effort or catches to be reduced until fishing mortality is below or at the proposed FMSY level, in order to avoid future loss in stock productivity and landings. This should be achieved by means of a multi-annual management plan taking into account mixed fisheries considerations	A good consistency was noted between the F estimated by VIT and those by Beverton and Holt mortality estimator. It was also noted that Fmax is not a very reliable reference point as it is hard to estimate. The SURBA run was not found satisfactory, as a large uncertainty was observed. The WG endorsed the assessment and recommendations.	The SC endorsed the advice.	The SAC endorsed the advice.
GSA 26	Brush tooth lizard fish, *Saurida undosquamis*	Lfreq catch	2002-2012	LCA, Y/R	The results (the current fishing level of the lizard fish is higher than the biological reference points (F0.1 and Fmax)) indicating that the stock is overexploited. (Fcurr/F0.1=2.0)	Reduce the fishing mortality to F0.1 by limiting fishing activities. Improve the selection pattern of the trawl fishery.	Two different methods were used to estimate natural mortality. A small difference between the natural mortality for age 1 and the last age was noted. Since this assessment is new, it was suggested to use a broad range of methods to test how M estimates vary. It was also suggested to look into separating the artisanal fisheries. The WG endorsed the assessment and recommendations.	Given that only one year of data is available, the SC considers this assessment as preliminary.	---

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 05	Red shrimp, *Aristeus antennatus*	Catch, trawl surveys, Afreq catch & Lfreq catch	1992-2011	LCA, XSA, VPA, Y/R	The stock is subjected to overfishing. (Fcurr/F0.1=3.9)	To reduce fishing mortality. A possible management measure would be protecting the recruitment, by reducing temporally fishing time during the recruitment period at the beginning of autumn.	From the time series the stock seems to be in a low abundance period. As F>F0.1, the management recommendations should be reducing the fishing mortality. The WG endorsed the assessment and recommendations.	The SC endorsed the advice. The effect of differences between males and females in biological parameters and catchability should be further evaluated and discussed in the report. Also potential issues on stock unit between GSA05 and 06 should be investigated.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 06 *(partial, Catalonia only)*	Red shrimp, *Aristeus antennatus*	Catch & Lfreq catch	2008-2010	VIT year by year	The stock appeared to be subject to overfishing in all the years assessed, with current values of F (Fc) above the reference point F0.1. (Fcurr/F0.1=2.4)	Basing advice on the evaluation of females, which made up for 81% of the catches, decrease the fishing mortality of 59% in order to reach the reference point F0,1 level (this percentage was calculated using the average value of Fc and F0.1 for the three years assessed).	The WG questioned the reasons of performing two different assessments for the same area. The differences between both assessments are: (i) CSIC assessment covered 2008- 2010, and length sampling and landings only from Catalonia (GSA 06 North) and (ii) IEO assessment covered 1992-2011, length sampling from the South of the GSA, landings and surveys abundance indices from all the GSA (both North and South). Although IEO also has length sampling information from the North, it only covered recent years (from 2007), so these data were not included in this assessment, although they would be included in the future. It should be important to compare the information from the north and the south: growth parameters, size composition and landing patterns. If they are very different, it would make sense to perform two assessments separately. If not, a single assessment for the entire GSA 06 should be presented. For nursery areas: It is assumed that a great part of the recruitment is in inaccessible areas for the fleet, so it is not necessary to suggest protecting them. Fmax as reference point should be avoided and the use of F0.1 is recommended. As Fc>F0.1, the stock is in overfishing situation. Thus, a reduction of F should be proposed. The WG endorsed the assessment and recommendations.	The SC endorsed the recommendation to combine all data for this stock in GSA 06 in a single assessment. Also potential issues on stock unit between GSA05 and 06 should be investigated. Reference points should be provided for the stock, and not separated by years, sex and geographical locations.	The SAC considers the assessment as preliminary, in agreement with the SC comments

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 06	Red shrimp, *Aristeus antennatus*	Catch, trawl surveys & Lfreq catch	1996-2011	LCA, YpR and XSA	The stock is in overfishing status. Exploitation rate shows a high F and the stock abundance is considered intermediate (but no reference point for biomass). (Fcurr/F0.1=2.1)	According to Yield per Recruit a reduction of about a 51% in current fishing mortality is needed to reach the level of F0.1.	The WG questioned the reasons of performing two different assessments for the same area. The differences between both assessments are: (i) CSIC assessment covered 2008- 2010, and length sampling and landings only from Catalonia (GSA 06 North) and (ii) IEO assessment covered 1992-2011, length sampling from the South of the GSA, landings and surveys abundance indices from all the GSA (both North and South). Although IEO also has length sampling information from the North, it only covered recent years (from 2007), so these data were not included in this assessment, although they would be included in the future. It should be important to compare the information from the north and the south: growth parameters, size composition and landing patterns. If they are very different, it would make sense to perform two assessments separately. If not, a single assessment for the entire GSA 06 should be presented. For nursery areas: It is assumed that a great part of the recruitment is in inaccessible areas for the fleet, so it is not necessary to suggest protecting them. The WG endorsed the assessment and recommendations	The SC endorsed the advice. The SC recommends combining all data for this stock in GSA 06 in a single assessment. Also potential issues on stock unit between GSA05 and 06 should be investigated.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 01, 03, 04	Deep-water pink shrimp, *Parapenaeus longirostris*	Trawl surveys & Lfreq catch	2003-2011	Based on LCA , YpR and Schaeffer model.	The stock is in overfishing status. From the first model, the actual level of fishing mortality (Fbar= 1.135) is higher than the values calculated for the FMSY proxy (F0.1 = 0.48). The obtained results from the global model indicate that the deepwater pink shrimp stock is overexploited. Current biomass represents only 11% of the target biomass and the fishing mortality exceeds 2.6 times the target mortality. (Fcurr/F0.1=2.4)	In order to allow for the recovery of the stock, a reduction of 50% of the current fishing mortality in the trawl fisheries targeting P. longirostris is recommended. - The effort level in the trawl fisheries should be reduced to adjust the current fishing mortality to levels more in agreement with the sustainability values, with F0.1 as reference point (Schaeffer model). - According to the projection coming from the production model, the reduction of the fishing mortality (F) at the mentioned level could enable the recovery of the P. longirostris stock in 4-5 years. - Data from Algeria and Morocco on length-frequency distribution at landing are necessary and should be provided for the next year to improve the joint database used in the analyses carried out by the SG, with partial support of CopeMed II if necessary.	Production model has been applied to a very short data series, which does not reflect the oscillations characteristic of a longer period. However, as the landings are not very flat, the results could be considered quite reliable. The WG endorsed the assessment and recommendations. Discussion about the production model.	The SC endorsed the advice. Further research on differences in exploitation pattern, biological characteristics and migration rates between the different GSA areas is recommended. The SC appreciated the effort to develop a joint international assessment under the Copemed project framework.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 06	Deep-water pink shrimp, *Parapenaeus longirostris*	Catch, trawl surveys & Lfreq catch	2001-2011	Based on LCA and YpR.	Overfishing. (Fcurr/F0.1=3.2)	From a precautionary approach and taking into account the estimated reference point FMSY proxy F0.1, a reduction of fishing mortality about 70% to reach F0.1 is recommended. The deep-water pink shrimp fluctuations found in the GSA 06 are in agreement with that observed in other areas of the Mediterranean and it is assumed that environmental conditions can affect the stock in addition to fishing mortality.	No particular comment, assessment and recommendations endorsed	The SC endorsed the advice. The SC recommends improving the terminology used in the assessment and advice.	The SAC endorsed the advice.
GSA 12-16	Deep-water pink shrimp, *Parapenaeus longirostris*	Catch, trawl surveys & Lfreq catch	2007-2011	LCA and preliminary XSA with 5 years of data. Landing of 3 countries involved in the assessment. Comparison of VIT year by year.	The WG proposed F0.1 = 1.22 as proxy of FMSY and as the exploitation reference point consistent with high long term yields. Taking into account the results obtained by the LCA analysis (current F0-3 was around 1.5-1.6 in 2010 and 2011), the stock is considered in overfishing. (Fcurr/F0.1=1.3)	Maintaining the current exploitation pattern, characterized by high catches of undersized shrimps from small trawlers, and considering F0.1 as target reference points, a reduction between 20 and 28% was recommended. An improvement of exploitation pattern of Italian small trawlers is needed. To contribute to this objective the protection of nurseries areas from towed gears was recommended	The sensitivity analysis for different shrinkages showed great differences for FBAR. Low shrinkage values constrain a lot the data to the tuning data series. Also, the shrinkage years are too large (5), so this should be improved. A longer time series of data is needed to improve the performance of XSA. The opportunity to use the standardized abundance indices from trawl surveys to make more robust the conclusion of the assessment was outlined. The results of intercalibration experiment, carried out in July 2011 in the Strait of Sicily within the framework of the MedSudMed project, to standardize the catch rates of Tunisian vessel with that used in Italian and Maltese trawl surveys, make possible to assess stock dynamics including spatial aspects over the whole area of distribution of the stock. The WG endorsed the assessment and recommendations.	The SC endorsed the advice. Since the $F_{0.1}$ value seems higher than in other GSAs, the SC recommends to investigate the effect of the method applied (i.e combining LCA and Y/R estimates obtained for each sex separately) on the F_{01} calculation. The SC appreciated the effort to develop a joint international assessment under the Copemed project framework.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 18	Deep-water pink shrimp, *Parapenaeus longirostris*	Trawl surveys, catch & Lfreq catch	2008-2011	VIT and R-routine for medium term	Overfishing. (Fcurr/F0.1=2.1)	The BRPs can be gradually achieved by multiannual management plans requiring a more sharp reduction in the short term than in the medium term. However, a more gradual reduction will very likely imply lower social and economic costs, without hampering the sustainability objective. The objectives of a more sustainable harvest strategy could be achieved with a multiannual plan based on a reduction of fishing mortality through fishing activity limitations and possibly fishing capacity decreasing. It is however necessary to consider that most part (71%) of the total F in the GSA is exerted by the Italian fleet, while Montenegrin trawlers account only for about 1.7% of the F exerted on the GSA and Albanian trawlers of about 27.1%. Contribute of each country to the total production in the GSA 18 is: Italy 71%; Albania 26%; Montenegro 3%.	The discussion highlights that when the time series of landings is short and tools as VIT are used, the application of the model year by year, as performed in this assessment, is preferable. The effects on catches of the reduction scenario in the medium terms would improve if also the beneficial effect on the spawning stock biomass was incorporated. It is important to receive by the relevant Committee and experts also economic considerations on the forecasts performed under different management scenarios. The WG endorsed the assessment and recommendations.	The SC endorsed the advice.	The SAC endorsed the advice.
GSA 05	Norway lobster, *Nephrops norvegicus*	Catch & Trawl surveys	2001-2011	XSA and YpR.	Overfishing. (Fcurr/F0.1=3.2)	To reduce fishing mortality. The use of the information from the vessel monitoring system will help to improve the knowledge about the spatial distribution of the fishing effort.	Current value of F has been pointed out as intermediate when compared with last year, in which it showed a maximum. However, last year F is a very unstable estimation; there is some uncertainty, so it was proposed to use last 2-3 years to make the comparison. Results from the retrospective analysis show that F estimations are not very stable. For this reason, the WG proposed to take the results of this assessment with caution. The WG endorsed the assessment and recommendations	The SC endorsed the advice.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 17	Mantis shrimp, *Squilla mantis*	Catch, trawl surveys & Lfreq catch	2007-2011	VPA, Y/R	Overfishing. Current F (2011) estimates with VIT model and separable VPA respectively of 0.93 and 1.00, higher than reference point (F0.1 = 0.50 as a proxy of FMSY). Moreover the decreasing trends observed for recruitment and SSB in the VPA results and for relative abundance and biomass in MEDITS survey, have to be taken into consideration as a state of stress of the stock. (Fcurr/F0.1=1.9)	A reduction of fishing pressure would be recommended. The relevant fleets' effort or catches (demersal otter trawl fishing fleet) should be reduced until fishing mortality is below or at the proposed reference level (F0.1), in order to avoid future loss in stock productivity and landings. This should be achieved by means of a multi-annual management plan taking into account mixed-fisheries considerations.	No specific comments. Assessment and recommendations endorsed	The SC endorsed the advice.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 29	Spiny dogfish, *Squalus acanthias*	Catch, Lfreq catch & trawl surveys	1989-2011	VIT and YpR from NOAA.	In the last 20 years the stock biomass has shown a decrease of an order of magnitude, but the exact amount is uncertain. We estimated F0.1 = 0.227 (FMSY proxy) as a limit reference point consistent with high long term yields and low risk of fishery collapse for dogfish in the Black Sea. Taking into account that the current F = 0.262 the stock is considered to be overexploited (Overfishing?). (Fcurr/F0.1=1.2)	Gaps that need to be addressed in the near future include: - Low quality of the input data for assessments (in terms age and size composition, fishing effort, CPUE and research surveys); - The lack of quality survey information deteriorates the estimates of the current population parameters (abundance and mortality) in stock assessments and decreases the reliability of the short term predictions and management advice; - Insufficient knowledge of stock units; - Lack of knowledge, evaluations and monitoring programs for assessing the IUU and discards; - Lack of reliable frameworks of assessing and standardizing of the commercial fleets fishing effort and CPUE Management advice and recommendations - Reducing fishing mortality; - Improve selection pattern; - Close spawning seasons in spring and autumn; - Obligation for pregnant females to be discarded; - Regional management measures	It was noted that enough data seems to be available to carry out a run using VPA, or at least to run VIT on a yearly basis. It was also noted that this species seems to undergo a sharp decrease that does not translate very clearly on the yield per recruit diagram. The problem of the estimation of age has been raised as well as the difference in methodology with neighbouring countries, which makes difficult the use of data. The WG endorsed the assessment and recommendations	The correct terminology for the conclusion related to higher Fcurrent than the F reference point is that the stock is under overexploitation However, the SC also endorsed that the stock is overexploited, based on a clear decreasing trend in abundance. Notwithstanding the endorsement, the SC recommends revising the assessment method avoiding to use VIT for this stock. Virtual population methods (e.g. VPA, XSA) appear more appropriate since a long time series of catch data is available for this stock. The SC recommends also improving standardization of aging procedures in the region. In terms of management considerations, the SC advices to adopt the GFCM2012/3 Recommendation on the protection of coastal sharks.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 29	Whiting, *Merlangius merlangus euxinus*	Catch, Lfreq catch & trawl surveys	2000-2011	YPR-LEN	Overfishing: estimated F =0.375 exceeds FMSY= 0.352. Given that this is not a highly migratory species we may conclude that the resident population is more exploited in the southern part (Turkish waters) than in the rest of the Black Sea. If we consider the recommendation of the EWG 12-16 as FMSY 0.4, the two results obtained by us, Fc (2011) = 0.375 and Fc (2000-20011) = 0.479 oscillate around of the value of FMSY = 0.4. In this case, we can consider that the stock is fully exploited. Terminology not consistent but overfishing is identified. (Fcurr/F0.1=1.1)	Reduce fishing mortality; Improve selection pattern; Regional management measures; Organize workshop(s) for inter-calibration of age readings between scientists in the region, and harmonize the frameworks and methods of sampling of commercial fisheries and scientific surveys	It was noticed that the discards for this species were very high. The WG endorsed the assessment and recommendations	The SC acknowledged uncertainties in the stock advice in relation to exploitation rate for this stock, in agreement with the WG comments. The SC advices on the necessity to adopt a unique FMSY value to be used to assess the stock in assessment groups from different Organizations (e.g. STECF EWG versus GFCM SCSA-WG demersals). The SC endorses the recommendation on harmonization of management and data regulations among countries. The SC recommends also to adopt management measures aimed at minimizing discards.	The SAC endorsed the advice.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 29	Turbot, *Psetta maxima*	Catch & Afreq catch	1970-2010	Extended Survivors Analysis (XSA) under FLR and the technique "shrinkage to the mean" was applied for 1970-2010. Yield per Recruit method was applied for long term predictions	Stock is in overfishing and considered to be overexploited (but not formal biomass reference point). Relative stock size indices from surveys and two XSA estimations indicate that the stock is at a historic low which significantly increases the risk of fisheries collapse. Uncertainties regarding the actual landings impose to interpret the XSA assessment results only in relative terms, i.e. they are considered indicative of trends only. Recruitment has increased since 2003 but this has not yet materialized in a significant increase in SSB. (Fcurr/F0.1=3.5)	Reduction of catches to the lowest possible level; Harmonization of management regulations and technical measures between all Black Sea countries in terms of fisheries closures; Harmonize the methodologies and approaches for data collection between coastal states; Estimation of IUU fisheries.	The assessment presented showed many improvements that lead to an in-depth analysis of the state of the stock with long-term historical data. There is some uncertainty on the earlier part of the data, but effort has been invested in gathering the best available data. It has been suggested to include a stock recruitment curve. The choice of iological parameters could be explained in more details. The WG endorsed the assessment and recommendations although it has to be noted that data are up to 2010. 2011 assessment was, according to author, under revision and could not be presented to the WG on time	The SC endorsed the advice, given the strong signals from the assessment. The SC recommends that problems in model performance are further investigated in order to improve the quality of the assessment.	The SAC endorsed the advice. The fact that the assessment was done with 2 years lag is highlighted

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 17	Red mullet, *Mullus barbatus*	Trawl surveys, catch, Afreq catch & Lfreq catch	2006-2011	Length cohort analysis (LCA) and Extended Survivor Analysis (XSA).	F0.1 and Fmax were estimated by the means of a Yield per recruit analysis (YPR) and are equal respectively to 0.234 and 0.408. The Fc is equal to 0.864. The exploitation rate (age 0-4) from the XSA analysis for 2011 is lower than 0.5. (Fcurr/F0.1=3.5)	LCA analysis evidenced the different fishing patterns of the two fleets, which is also determined by the behavior of the species. The Italian fleet is clearly targeting recruitment; besides, the Fc for the Croatian fleet is between F0.1 and Fmax while the Fc for the Italian fleet is above both reference points, showing a possible situation of growth overfishing. Nevertheless, an exploitation rate (F/Z) of 0.4-0.5 is on the safer side for a demersal stock. The fishing mortality is high on part of the stock and the biomass trends are rather stable. Taking into account the different exploitation pattern, it could be wise to reduce the fishing mortality on the recruitment and this could be obtained by a prolongation of the closed season for trawling along the Western Adriatic coast where in autumn age 0 recruits born in summer are concentrated.	High fluctuations with exceptional year with very strong recruitment are an established feature of the Mullus barbatus stock in the Adriatic Sea. There is a discrepancy of trends between the XSA results and the MEDITS data on the total biomass estimates and on the SSB estimates: the spawning stock biomass and the stock biomass are decreasing in the last year in XSA, and the recruitment sees an increase in the last couple of years, whilst the signals coming from the MEDITS survey are all positive, with a stable biomass and a really high recruitment estimated for the 2012. Nevertheless, due to the discrepancy between the XSA results and the signals from the MEDITS survey, and due to the uncertainty in the model settings the WG is not able to give advice and this should be considered as a preliminary assessment	Advice is not commented as the stock assessment is considered preliminary. The SC recommends investigating suitable techniques to improve the knowledge on stock unit. The SC appreciated the effort to develop a joint international assessment under the Adriamed project.	---

GSA	Species	Data type	Years data	Methodology used	Stock status	Management advice	WG comments	SC comments	SAC comments
GSA 01, 02, 03, 04	European hake, *Merluccius merluccius*	Catch, length frequency (catch data, survey data)		For lengthy frequencies (GSA 01+03, period 2007-2010), the methodology applied was the software VIT.	The actual level of fishing mortality (Fc = 1.148) is higher than F0.1 = 0.48 which indicates that the stock is in overfishing status.	•To reduce by 50% the fishing mortality in the current trawl fishery.. • To perform joint genetic analysis and research on M. merluccius in Algeria, Morocco and Spain (GSAs 01, 02, 03 and 04) to identify if there is a single common M. merluccius shared stock. • To complete the information on M. merluccius stock in Algerian GSA 04 to join Algerian data to the GSAs 01 and 03 to cover all the study area. • To improve the national database it was stressed that monthly biological data from Algeria and Morocco on length-frequency distribution at landing are necessary for the assessment and should be provided for the next meeting of the SG. If necessary, partial support of CopeMed II could be provide to complete some series. • The organization of a meeting with the Sicily Strait area (CopeMed and MedSudMed SG) to analyze the possibility in comparing the biological and fisheries data and performing a joint evaluation on the M. merluccius stock if possible. • The SG agreed that biological and fisheries data in each country used for the assessment (biological parameters, demographic structure, etc.) should be uploaded to the CopeMed web (Regional Networks and databases). • The next assessment should be based on VPA (not in equilibrium) tuned by effort data from commercial fleets and independent indices from surveys. • To continue working in improving the data to carry out a M. merluccius joint stock assessment before the 2013 meeting of the WG of Demersal Species of the SCSA.	It has been noticed that growth parameter from Morocco was very low. The WG acknowledged the effort of this joint assessment and endorsed all the research recommendations.	Advice is not commented as the stock assessment is considered preliminary. The SC recommends investigating suitable techniques to improve the knowledge on stock unit. The SC appreciated the effort to develop a joint international assessment under the Copemed project.	---

Appendix F (a) / Annexe F (a)

Summary tables of national reports / Tableaux récapitulatifs des rapports nationaux
(in English only/en anglais seulement)

Albania

National Report 2013

Description of the fisheries

FLEET	597 vessels (2012)
PRODUCTION	6 950 t (2012)
ACTIVITIES	GSA 18

Status of stocks of priority species

Statistics and Information Systems

FISHERIES AND VESSELS DATA	Fisheries Directorate increased its administrative capacity for data collection and data processing

National management measures and research projects related to GFCM Decisions

ON FISHERIES AND AQUACULTURE	The first law "On Fisheries" approved by Council of Ministers and by Albanian Parliament, (Law Nr. 64, of date 31.05.2012 "On fisheries"), new law "On Aquaculture" prepared with the assistance of IPA 2008 Project "Establishing and Strengthening of the System for Monitoring, Control and Surveillance (MCS) in Albanian Fisheries" (Europe aid/128433/C/SER/AL)
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	This kind of fishing has been (in former law) and is (new actual law) forbidden
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	Fishing of this species is forbidden by the Law no. 64/2012 date 31/5/2012. The implementation regulation is under preparation by the Directorate.
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Fishing of this species is forbidden by the Law no. 64/2012 date 31/5/2012

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Scientific fishery survey Acoustic, DEPM, Medits, Biological sampling (starting from April 2013) Laboratory of Fisheries and Aquaculture uses ATRIS (AdriaMed Trawl Survey Information System) data base with trawl fishery survey data

MARINE ENVIRONMENTAL STUDIES
Environmental studies and monitoring are carried up through the National Programme of Environment Monitoring

SOCIO-ECONOMIC STUDIES
Social and economical aspect studies on marine fisheries have just started by the Fisheries and Aquaculture Institute "HYDRA", with the support of FAO AdriaMed project

Involvement in activities of FAO Regional Projects

AdriaMed	Achieve homogeneous level of knowledge that would allow undertaking ecosystem-oriented activities and setting-up common tools at sub regional level for the sustainable management of fisheries operating on shared stocks

	Fishery and Aquaculture Laboratory was directly involved in the monitoring of fisheries resources in several scientific surveys
	Albanian experts partecipated in the AdriaMed Working Groups on Fisheries Resources (Demersal and Small Pelagics) for the joint analysis and stock assessment of shared stocks with Montenegro and Italy experts

Proposal for future research programmes

To continue in demersal and pelagic stock evaluation in a way of having real knowledge of that stocks by the purpose of compiling the proper policies and management measures to guaranty a responsible and sustainable exploiting of the main marine resources
To be further supporting the Albanian legal and sublegal acts preparation of fishery and aquaculture field
To further train the Albanian specialists on mathematical processing of data that have resulted from above mentioned evaluations
Re-evaluation of Small Scale /Artisanal Fisheries as a further evaluation made on 2005 in a way of having knowledge about the trendy of developments of this part of marine fisheries which has high economical, biological, environmental and social value

Algeria

National Report 2013

Description of the fisheries

FLEET	4 316 vessels (2011); 4 191 (2010)
PRODUCTION	104 008 t (2011); 95 167 t (2010)
ACTIVITIES	GSA 04

Status of stocks of priority species

Sardina pilchardus	Optimal rate of exploitation
Engraulis encrasicholus	Uncertain
Parapenaeus longirostris	In overfishing status

Statistics and Information Systems

FISHERIES DATA	National statistical scheme covers landing sites for marine fisheries. Catch and effort data

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
ALPEL Acoustic Survey
Centre National pour le Développement de la Pêche et de l'Aquaculture (CNRDPA) a mis en place un programme d'évaluation des stocks halieutiques des côtes algériennes (2025)
Demersal trawl survey

MARINE ENVIRONMENTAL STUDIES
Assessment of pollution on coastal water

SOCIO-ECONOMIC STUDIES

Involvement in activities of FAO Regional Projects

FAO COPEMED	Training in fishing technologies

Proposal for future research programmes

Socio-economic studies on artisanal fishery
Biology of small pelagics
Ichthyoplankton
Red microalgae identification
Biology of swordfish and small tunas

Bulgaria

National Report 2013

Description of the fisheries

FLEET	2 366 vessels (31/12/2012); 2 366 (31/12/2011)
PRODUCTION	7 974 t (2012); 8 130 t (2011)
ACTIVITIES	GSA 29

Status of stocks of priority species (2011)

Sprattus sprattus	In overfishing status
Psetta maxima	Severely depleted
Engraulis encrasiculos	In overfishing status
Merlangius merlangus euxinus	In overfishing status

Statistics and Information Systems

FISHERIES AND VESSELS DATA	Information-statistics system (ISS) of National Agency for Fisheries and Aquaculture based on the EU legislation

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	Not applicable for the Black Sea
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	No information available
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Not applicable for the Black Sea

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Data collection program (DCR 199/2008 EC) in Bulgarian and Romanian part of Black Sea – scientific cruises for estimation of abundance and biomass of turbot (swept area method)
Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries (SRCSSMBSF)
Assessing and predicting the combined effects of natural and human-made pressures in the Mediterranean and the Black Sea in view of their better governance (fisheries and non-indigenous species)
Assessments on Black Sea stocks
COMFISH Strengthening the impact of fisheries related research through dissemination, communication and technology transfer
MESMA Monitoring and Evaluation of Spatially Managed Areas
CREAM Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas
KNOWSEAS Knowledge-based Sustainable Management for Europe's Seas
Project on the Studies for carrying out the Common Fisheries Policy: Adverse Fisheries Impacts on Cetacean Populations in the Black Sea

MARINE ENVIRONMENTAL STUDIES
Enlargement of the ecological network NATURA 2000 in Bulgarian Black Sea territorial waters to overcome the mid incompleteness regarding marine habitats
Monitoring of fish biodiversity and cetaceans
SOCIO-ECONOMIC STUDIES
Bulgaria-Japan Research Collaboration for Sustainable Development with the purpose to promote Basic and Applied Sciences as well as Humanities and Social Sciences
Involvement in activities of FAO Regional Projects
FAO BlackSeaFish
Proposal for future research programmes

Croatia

National Report 2013

Description of the fisheries

FLEET	4 232 vessels (2011); 4 091 (2010)
PRODUCTION	69 700 t (2011); 51 438 t (2010)
ACTIVITIES	GSAs 17 and 18

Status of stocks of priority species

Engraulis encrasicolus (GSA 17)	Fully exploited
Sardina pilchardus (GSA 17)	Fully exploited
Solea solea (GSA 17)	In overfishing status

Statistics and Information Systems

VESSELS REGISTER AND ACTIVITIES	Web-based Croatian Fishing Fleet Register
CATCH AND LANDINGS	Fishing vessels equal to or longer than 10 m submit the logbook reporting data on catch and landings
VMS	Croatia has in 2011 embarked on installation of electronic logbooks on all its vessels over 15 m in length (since 1 Jan 2012 the system is operational on all vessels over 18 m LoA)

National management measures and research projects related to GFCM Decisions

ON LARGE PELAGIC FISHERIES	All recommendations on bluefin tuna and swordfish in Mediterranean Sea as adopted by ICCAT and GFCM are fully incorporated in Croatian legislation and have been implemented in the inter-sessional period
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	Croatia is in an advanced stage of preparing a legal act, which will fully incorporate the provisions of GFCM into national legislation. Traditional areas for collecting red coral are in the territorial waters of the Croatian open fishing sea mostly in central and southern parts at depths greater than 50 m
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	By-catch rates of cetaceans (according to Paragraph 3. of the Reccommendation): *see below*
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Ban on use bottom-set nets to catch certain species of sharks including: *Hexanchus griseus, Cetorhinus maximus* and all species of the families Alopiidae, Carcharhinidae, Sphyrnidae and Lamnidae, is in force since 2010
	Catch/incidental taking of sharks species listed in Annex II or III of the SPA/BD Protocol (according to Paragraph 9. of the Reccommendation): *see below*

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
PELMON Monitoring of small pelagic stock by acoustic survey
PERIMON Collection of biological and fisheries related data as needed for fishery dependent assessments (i.e. VPA)
DEMMON Evaluation of demersal resources in the Croatian fishing sea. Fisheries and biological data collection includes on board sampling and laboratory analysis, sampling on the landing ports and gathering basic socio-economic
PRIMO Monitoring of coastal fisheries and biological sampling on most important fishing gears (trammel and gill nets, long lines and traps)
MEDITS Biomass estimation of demersal resources (since 1996)
SOLEMON Evaluation of *Solea solea* and other flatfish stocks in the Adriatic Sea and estimation of the impact of different gear in the framework of AdriaMed
DEEP SEA Project on investigation of distribution and status of biological resources in deep south Adriatic in the framework of AdriaMed (started in 2008)
UWTV Survey Alternative assessment of biomass stock of Norway lobster using underwater camera in the framework of AdriaMed

MARINE ENVIRONMENTAL STUDIES
Systematic exploration of the Adriatic Sea as basis for sustainable resources management, monitoring of parameters relevant to the marine environmental and renewable resources

SOCIO-ECONOMIC STUDIES
Studies are currently being developed within the definition of the national data collection program fully in line with the EU DCF rules

Involvement in activities of FAO Regional Projects

AdriaMed	Fully involved in all activities

Proposal for future research programmes

It is deemed necessary to continue with the activities in the framework of FAO AdriaMed Project
Consideration should be given to international monitoring of demersal resources in Jabuka Pit. Jabuka/Pommo Pit is a principal fishing ground in the Adriatic Sea for Croatian and Italian bottom trawl fisheries fleet
Concerning small pelagic fish species, particularly sardine and anchovy, determination of spawning grounds as well as nursery area is necessary; hence those studies should be conducted

Information submitted to the Secretariat according to GFCM RECCOMMENDATIONS

By-catch rates according to Paragraph 3. REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS

YEAR	No by-catches of cetaceans were recorded in 2012
SPECIES	/
FISHERIES AND GEAR	/
TIME AND LOCATION (GSA/STATISTICAL GRID)	/

Information on fishing activities, catch data, incidental taking, release and/or discarding events for sharks species listed either in Annex II or III of the SPA/BD Protocol according to Paragraph 9. REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS

YEAR	There were no recorded by-catches of Annex II or III shark species
SPECIES	/
FISHERIES AND GEAR	/
TIME AND LOCATION (GSA/STATISTICAL GRID)	/

Cyprus

National Report 2013

Description of the fisheries

FLEET	488 vessels (2012); 542 vessels (2011)
PRODUCTION	
ACTIVITIES	GSAs 25 and 14, 15 and 21 (international waters)

Status of stocks of priority species

Statistics and Information Systems

FISHERIES DATA	Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture
FISHING FLEET REGISTER	Cyprus National Database

National management measures and research projects related to GFCM Decisions

ON FISHING EFFORT	Restrictive access to fisheries, restrictions on the use of fishing gears, Fishing Protected Areas, Regulation of fishing capacity, Minimum sizes of marine organisms, minimum mesh sizes, Seasonal and area closures
ON LARGE PELAGIC FISHERIES	During the intersessional period the ICCAT recommendations on the management of Mediterranean swordfish, the multiannual recovery plan for bluefin tuna and the conservation of thresher sharks, endorsed by GFCM, were implemented
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	There is no exploitation of red coral by the Cyprus Fleet
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	By-catch rates of cetaceans (according to Paragraph 3. of the Reccommendation): *see below*
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Data based on the recommendation are collected by the Department of Fisheries and Marine Research and the recommendations have been included in the fishing license rules

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
National Fisheries Data Collection Programme (annually)
MEDITS Biomass estimation of demersal resources
EU Oceanographic research projects, research projects of aquaculture

MARINE ENVIRONMENTAL STUDIES
Research on marine ecology with a particular emphasis on marine biodiversity
Effects on the marine ecosystem from various anthropogenic activities, such as aquaculture, desalination, breakwaters, sewage, etc
Monitoring studies on the appearance and expansion of invasive alien species in the marine environment of Cyprus
Monitoring of eutrophication events by nuisance macroalgae
Programs for the conservation of sea turtles, monk seal, Posidonia seagrass meadows, etc
Studies in the framework of the establishment of marine protected areas, including the development of artificial reefs

Monitoring of marine ecological and environmental parameters, as well as estimation of pollutants in marine organisms
Assessment of the Ecological Quality Status of coastal waters, under the Water Framework Directive 2000/60/EC
Study of the ecology and monitoring of the environmental parameters of the Larnaca Salt Lake complex and Akrotiri wetlands

SOCIO-ECONOMIC STUDIES
Surveys and interviews by the DFMR

Involvement in activities of FAO Regional Projects

EastMed	The DFMR participates in the regional project and activities

Proposal for future research programmes

Information submitted to the Secretariat according to GFCM RECCOMMENDATIONS

By-catch rates according to Paragraph 3. REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEAN

YEAR	No information on by-catch of cetaceans was reported or recorded by the DFMR within GSA 25 for 2012
SPECIES	/
FISHERIES AND GEAR	/
TIME AND LOCATION (GSA/STATISTICAL GRID)	/

Egypt

National Report 2013

Description of the fisheries

FLEET	4 529 vessels (3 082 with engine - 1 444 sail boats) (2011); 4 633 (3 092 with engine 1 541 sail boats) (2010)
PRODUCTION	77 799 t (2011); 77 388 (2010)
ACTIVITIES	GSA 26

Status of stocks of priority species

Sardinella aurata	Stock is in balanced position
Saurida undosquamis	Overexploited

Statistics and Information Systems

CATCH/EFFORT MONITORING	General Authority for Fish Resources Development (GAFRD) operators
DATABASE	Samac.Net: monthly statistical reports involving system referential data, catch/effort estimates, statistical diagnostics on the accuracy of sampling
VESSEL REGISTER	A vessel information spreadsheet according to GFCM requirements has been designed. All Mediterranean harbors are covered and an ongoing fleet register updated annually

National management measures and research projects related to GFCM Decisions

ON FISHING EFFORT	Specific management regulations are limited to freeze on the issue of additional fishing boats licenses and a closed season for all fishing activities from 1 May to 30 June each year in the Mediterranean Sea
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Sampling of biological data for the most commercial pelagic and demersal species (started in 2011) under the framework of EastMed
Investigation of geographical distribution, relative abundance and biological parameters of the pelagic and demersal species (2012-2013)
MARINE ENVIRONMENTAL STUDIES
Pilot study on Implementation of the 40 mm square mesh size to the Egyptian trawl fleet will be developed under the framework of EastMed
SOCIO-ECONOMIC STUDIES
Sampling programme developed, with the support of EastMed to estimate all the socio-economic variables for fleet segments according to the GFCM Task 1 fleet segmentation and to provide a preliminary assessment of socio economic situation of the Egyptian fisheries fleet through an interview based survey
Mohamed Zyton (2012) studied the occupational safety and health in the Egyptian fishing industry: many hazardous work conditions and practices that result in high morbidity and mortality rates, and high injury rates

Involvement in activities of FAO Regional Projects	
EastMed	

Proposal for future research programmes
Mapping of the most important spawning and nursery grounds for the establishment of marine protected areas to be used as an effective fisheries management tool is needed
The whole life cycle of the different species should be studied to describe their population dynamics and consequently applying the fishery management models
Strong need for the appropriate measures of stock biomass and stock abundance, of the commercial species which would provide real stock information upon which management strategy could be developed

France

National Report 2013

Description of the fisheries

FLEET	1 325 vessels (2011); 1 348 vessels (2010)
PRODUCTION	
ACTIVITIES	GSAs 07 and 08

Status of stocks of priority species

Merluccius merluccius (GSA 07)	In overfishing status
Mullus barbatus (GSA 07)	In overfishing status
Sardina pilchardus (GSA 07)	Low biomass level
Engraulis encrasicolus (GSA 07)	Low biomass level
Thunnus thynnus (GSA 07)	Reduction in catches coherent with the recovery plan set by ICCAT

Statistics and Information Systems

FISHERIES DATA	Système d'Information Halieutique (SIH) managed by IFREMER is carried out within the framework of the Data Collection framework of the EU. Catch and effort surveys and biological sampling carried out for small scale fisheries <12 m LOA
OBSERVERS PROGRAMS	Catches, marine mammal by-catch, bluefin tuna aerial surveys

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Bluefin tuna research
RECOPESCA Geolocalization of fishing effort in vessels not equiped with VMS
HACOUSMED Harmonisation des données ACOUstiques en MEDiterranée
MARINE ENVIRONMENTAL STUDIES
ECOPELGOL Study of the pelagic eosystem dynamics in the Gulf of Lion
AMPED Marine Protected Areas for highly migratory species
IPEP Impact of fisheries on protected species
AMPED Marine Protected Areas for highly migratory species
SOCIO-ECONOMIC STUDIES
RP3 National project to assess revenues by reducing fuel consumption and reducing environmental impact

Involvement in activities of FAO Regional Projects
Proposal for future research programmes

Greece

National Report 2013

Description of the fisheries

FLEET	16 696 vessels (31/12/2012); 17 164 (21/12/2011)
PRODUCTION	60 349 t (2011, provisional data); 74 885 t (2010)
ACTIVITIES	GSAs 20, 22, 23

Status of stocks of priority species

Engraulis encrasicolus (GSA 22)	Fully exploited with no expected room for expansion
Sardina pilchardus (GSA 22)	Overexploited
Mullus barbatus (GSA 22-23)	Fully exploited
M. surmuletus (GSA 22-23)	Fully exploited
Merluccius merluccius (GSA 22-23)	Overexploited
Parapeneus longirostris (GSA 22-23)	Overexploited

Statistics and Information Systems

VESSELS WITH MOTOR > 19 HP	The Hellenic Statistical Authority (EL.STAT)
OTHER DATA	Directorate General for Fisheries supervised by the Ministry of Rural Development, and Food

National management measures and research projects related to GFCM Decisions

ON LARGE PELAGIC FISHERIES	Recommendations on blue fin tuna and swordfish in the Mediterranean Sea as adopted by ICCAT and GFCM were fully implemented during the intersessional period
ON SMALL PELAGIC FISHERIES	A national management plan for the small pelagic fish stocks of *Engraulis encrasicolus* (anchovy) and *Sardina pilchardus* (sardine) exploited by purse seine fishery has been implemented in 2012
ON EEL	Measures targeting to the direct reduction of fishing and natural mortality, the establishment of an efficient recording system and the improvement of the efficiency of eel migrations
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	The coral fishing is regulated by national legislation which is in force since 1994. According to this, fishing authorisations are issued and the fishery is managed by regulating the allowable fishing depth, the harvesting areas and the permitted fishing gear. National legislation will be updated according to Recommendation GFCM/35/2011/2
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	Cetaceans are not targeted in any fishery in Greece. Regarding to incidents of dead cetaceans special care is provided for data collection since 2000. The use of monofilament nets is forbidden in the Greek waters since 1997
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Sharks and rays are not targeted species for any fishery in Greece, however their catch is monitored by the National Fisheries Data Collection Programme. National legislation on swordfish fishery was harmonized with the REC. GFCM/36/2012/3

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Data collection programme on biology and landings of silver and yellow eel
MEDIAS Data collection to provide fisheries indipendent information for the assessment of small pelagic species
Estimation of biological parameters and transversal variables relating to fishing activity of drifting long lines
FISHPOPTRACE Structure of Fish Populations an d Traceability of Fish and Fish Products

ALBAMONTE Rapid assessment of alien marine species in the Albanian and Montenegrin coast
ARCHIMEDES Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume or the mass of the net
BADMINTON Bycatch and Discards: Management indicators, trends and location
DEEPFISHMAN Management and Monitoring Of Deep-sea Fisheries and Stocks
FISHINMED Mediterranean Network of sustainable small-scale fishing communities
MAREA Mediterranean hAlieutic Resources Evaluation and Advice
MESMA Monitoring and Evaluation of Spatially Managed Areas
MET-SMA-FISH Métiers in Small Scale Fisheries
MIAS Updating the inventory of Marine Invasive Alien Species across European Seas
Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture
Socio economic effects of management measures of the future CFP
SUSY Surfacing System for Ship Recovery
TRAWLPLAN Management plan for the demersal trawl fisheries in the Greek seas

MARINE ENVIRONMENTAL STUDIES
ARCHITECTURE Architecture and roadmap to manage multiple pressures on lagoons
ConShagAudMIBAGR Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece, including the Inventory of Relevant Marine IBAs
CORAL FISH 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
CREAM Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas
EFH-GIS The identification and mapping of Essential Fish Habitats using Geographic Information Systems
KOUPONIA Collection of environmental, ecological, oceanographic and fishery data for the Argolikos gulf
MADE Mitigating adverse ecological impacts of open ocean fisheries
MEDISEH Mediterranean Sensitive Habitats
MYFISH Maximising yield of fisheries while balancing ecosystem, economic and social concerns
NETMED Planning a network of marine protected areas for the Mediterranean Sea
ODEMM Options for Delivering Ecosystem-based marine management
PEGASO People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast
SMPE Elaboration of the Strategic Study of Environmental Impact of aquaculture within the frame of the National Cadastral Design and Sustainable Development plan for aquaculture
WISER Water body in Europe: integrative system to assess ecological status and recovery

SOCIO-ECONOMIC STUDIES
BEMTOOL Bio-Economic Modelling TOOLs
JAKEFISH Judgment and Knowledge in Fisheries Involving StakeHolders

Involvement in activities of FAO Regional Projects

EastMed	Researchers and fisheries officers from the administration took part in several activities concerning the objectives of the project and based on the work plan

Proposal for future research programmes

Israel

No data provided

Description of the fisheries	
FLEET	
PRODUCTION	
ACTIVITIES	

Status of stocks of priority species	

Statistics and Information Systems	

National management measures and research projects related to GFCM Decisions	
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress
FISHERIES ECOLOGY/BIOLOGY STUDIES
MARINE ENVIRONMENTAL STUDIES
SOCIO-ECONOMIC STUDIES

Involvement in activities of FAO Regional Projects	

Proposal for future research programmes	

Italy

National Report 2013

Description of the fisheries

FLEET	13 078 (2011); 13 301 (2010)
PRODUCTION	210 324 t (2011); 223 000 t (2010)
ACTIVITIES	GSAs 09, 10, 11, 16, 15, 19, 17 and 18

Status of stocks of priority species

Merluccius merluccius (all GSAs)	In overfishing status
Mullus brabatus (all GSAs)	In overfishing status
Solea vulgaris (GSA 17)	In overfishing status
Pagellus erythrinus (GSAs 09, 15, 16)	In overfishing status
M. surmuletus (GSA 09)	In overfishing status
Lophius budegassa (GSAs 15, 16)	In overfishing status
Nephrops norvegicus (GSA 09)	In overfishing status
Squilla mantis (GSAs 09, 17)	In overfishing status
Parapenaeus longirostris (GSA 09)	Sustainable exploitation
P. longirostris (GSAs 10, 16, 18)	In overfishing status
Aristaeomorpha antennatus (GSA 09)	In overfishing status
A. foliacea (GSAs 09, 11, 16)	In overfishing status
Engraulis encrasicolus (GSA 16)	In overfishing status
E. encrasicolus (GSA 17)	Sustainable exploitation
Sardina pilchardus (GSA 17)	Fully exploited with no expected room for expansion
S. pilchardus (GSA 16)	Low biomass level

Statistics and Information Systems

FISHERIES DATA	IREPA on behalf of the Ministry of agriculture and forestry policies (MiPAAF)
DATABASE	European Regulation on Data Collection (EU reg. n. 199/2008): centralized database has been developed to store fishery statistics, economic data of the fleet, biological data, etc

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	According to our best updated knowledge, validated scientific studies providing new information on Italian coral populations at depth less than 50 m are not available. Therefore, derogation of paragraph 4 is not currently applicable at the Italian level
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	Details on annual bycatch rates in pelagic/mid-water trawlers and total estimates of bottlenose dolphins (*Tursiops truncatus*) for GSA 17 are regularly reported through the Annual Reports on the implementation of Council Regulation (EC) 812/2004
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Details on annual bycatch rates in pelagic/mid-water trawlers and total estimates of elasmobranch species (including, *Alopias vulpinus, Pteromylaeus bovines, Pteroplatytrygon violacea, Myliobatis aquila, Mustelus* sp, *Squalus* sp,) for GSA 17 through the Annual Reports on the implementation of Council Regulation (EC) 812/2004

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Fisheries data collected within the Italian National Data Collection Program 2012 (The General Directorate for Fisheries and Aquaculture - MIPAAF)
ITAFISHNET Development of a net for the exchange of information between national researchers
Development of the System GIS-PESCA on the entire coastline
Assessment of bycatch of protected species in the pelagic trawl
Nutritional and safety aspects of fish species from fishery and aquaculture

Assessment of *Anguilla anguilla* in the framework of UE Reg. 1100/2007
Preliminary assessment of the main species of Elasmobranchs
Assessment of the red coral in the Italian seas
Diffusion of *Anisakis* sp and potential risks
Species identification of fishery products
Guidelines and technical measures for the management of Fishery Restricted Areas
Spatio-temporal identification of nursery area in the Italian seas

MARINE ENVIRONMENTAL STUDIES
Fishery and marine pollution: studies on the effects of pollutants on marine fishery

SOCIO-ECONOMIC STUDIES
Bio-economic models
Cooperation development in the Mediterranean fishery sector – the labor context, the producers associations, training

Involvement in activities of FAO Regional Projects

AdriaMed	Involvement in trainer and/or trainees activities on the collection, storing and processing of fishery related data, technical meetings, stock assessment activities
MedSudMed	Involvement in trainer and/or trainees activities on the collection, storing and processing of fishery related data, technical meetings, stock assessment activities
EastMed	Activities on the collection of fisheries data and training on artisanal fisheries monitoring in Eastern Mditerranean countries are being co-funded

Proposal for future research programmes

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
Assessing impact of fishing on communities and ecosystems
Evaluating spatial management measures (no take zones, fishery restricted areas, marine protected areas)
Investigating effect of climate change on stock dynamics
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
Mapping spawning grounds and other essential fish habitats
In special areas such as the Strait of Sicily and the Adriatic Sea, where straddling and trans boundary 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.*

Japan | ***National Report 2013***

Description of the fisheries

FLEET	273 vessels (0 active)
PRODUCTION	0 t (since 2010)
ACTIVITIES	No Japanese vessels have operated in the Mediterranean since 2010

Status of stocks of priority species

Thunnus thynnus	Stocks managed by ICCAT

Statistics and Information Systems

FISHERIES DATA	Catch reports to Fisheries Agency of Japan and analyzed by National Research Institute of Far Seas Fisheries of the Fisheries Research Agency (NRIFSF)

National management measures and research projects related to GFCM Decisions

ON LARGE PELAGIC FISHERIES	Japan has been implementing the ICCAT and GFCM recommendations related to fishing activities in the Mediterranean. But Japanese fishing vessels have not operated in the Mediterranean recently
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	No Japanese vessels have operated in the Mediterranean since 2010
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	No Japanese vessels have operated since 2010 in the Mediterranean. Thus, we do not have any information about it
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAY	No Japanese vessels have operated since 2010 in the Mediterranean. Thus, we don't have any information about it

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES

The biological and stock assessment researches on Atlantic tunas and billfishes have been carried out by the NRIFSF. These researches are not focused on the Mediterranean because no Japanese vessels have operated there recently and we cannot collect the data

MARINE ENVIRONMENTAL STUDIES

The Fisheries Agency of Japan and the NRIFSF have been conducting various programs and studies. However, there is no program or studies focused on the Mediterranean area because of no fishing data

SOCIO-ECONOMIC STUDIES

There is no social science study on the Japanese tuna fisheries in the Mediterranean provided to the Fisheries Agency because of no fishing data

Involvement in activities of FAO Regional Projects

There is no activities of FAO Regional Projects in which Japan is involved in the Mediterranean

Proposal for future research programmes

Lebanon

National Report 2013

Description of the fisheries

FLEET	2 662 vessels (2004)
PRODUCTION	4 540 t (2012) (North Lebanon only)
ACTIVITIES	GSA 27

Status of stocks of priority species

Boops boops	Overexploited
Diplodus sargus sargus	Fully exploited

Statistics and Information Systems

CATCH ASSESMENT	Since 2005, commercial fisheries data (North Lebanon only) collected by Marine Resources and Coastal Zone Management program (MRCZM), University of Balamand (UOB)
DATA ENTRY	FLOUCA (Lebanese term for fishing boat and stands for Fish Landing Operational Utility for Catch Assessment) software and standard statistical methodology provided by FAO

National management measures and research projects related to GFCM Decisions

ON GEAR	Minister Decision 8/1 (4/1/2012) regarding the organizing and defining some marine fishing gear 'Fyke nets'
ON CONTROL	Acquiring and commissioning of four fisheries patrol boats to help in monitoring and control activities
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Pilot survey on fisheries dependent data collection in Lebanon including training
Historical Catch Reconstruction for fisheries in Lebanon
PESCA LIBANO PROJECT Technical Assistance to the Ministry of Agriculture for fishery development (CIHEAM-MAI Bari, the Istituto Agronomico per l'Oltremare, Lebanese Ministry of Agriculture and the Lebanese National Council for Scientific research)
CANA PROJECT Establishing Monitoring and Sustainable Development of the Lebanese Sea (by the Italian Ministry of Foreign Affairs and run by the Lebanese National Council for Scientific research

MARINE ENVIRONMENTAL STUDIES
PEGASO People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and Coast
Evaluation of coastal risk on the Chekka El Heri beach through the assessment of the physical oceanographic parameters
Deployment of an artficial reef in front of Aabdeh (North Lebanon)
UNEP - Environmental Resources Monitoring Project
UNDP - Early recovery of NBC surrounding municipalities' project

SOCIO-ECONOMIC STUDIES
First country-wide pilot socio-economic survey of fishing communities conducted by FAO EastMed Project

Involvement in activities of FAO Regional Projects

EastMed Project	Fishing Licensing System; Catch assessment pilot study; New fishing vessels design and/or new vessel building materials; Pilot country-wide socio-economic survey

Proposal 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 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
Research the impact of invasive species on commercial stocks in particular and the coastal marine ecosystem in general with a special emphasis on L. sceleratus
Update on a yearly basis the list of coastal marine biodiversity richness in Lebanese territorial waters
Monitor marine food chains and webs in the perspective of climate change with a special emphasis on primary producers
Monitor marine macro-algae in the perspective of climate change

Libya | ***National Report 2013***

Description of the fisheries

FLEET	The number of our fleet was changed due to Libyan revolution
PRODUCTION	No accurate total landings in 2012 due to difficulties in collecting production data
ACTIVITIES	No fishing activity in 2011 due to Libyan revolution

Status of stocks of priority species

No stock assessment and no species evaluated during the intersessional period

Statistics and Information Systems

No major improvement/change occurred on the national fishery statistics during the intersessional period

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	No exploitation of red coral exist in Libya, although there was a record of its occurrence in the eastern coastal waters
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	No relevant information available
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	MBRC has issued an identification manual on cartilaginous fishes as first step towards the process of conservation of sharks and rays

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES

MARINE ENVIRONMENTAL STUDIES

SOCIO-ECONOMIC STUDIES

Involvement in activities of FAO Regional Projects

MedSudMed	Analysis of the biomass of small pelagic of 2010 survey, analysis of the distribution of egg and larvae and some environmental factors in the eastern part of Libya on 2010

Proposal for future research programmes

Malta | ***National Report 2013***

Description of the fisheries

FLEET	2 989 vessels (2012); 3 039 (2011)
PRODUCTION	1 527 t (2012); 1 835 t (2011)
ACTIVITIES	GSA 15

Status of stocks of priority species (assessments conducted in 2012, reference year 2010)

Lophius budegassa	Overexploited
Parapenaeus longirostris	Overexploited
Merluccius merluccius	Overexploited
Aristaeomorpha foliacea	Overexploited
Mullus barbatus	Overexploited
Pagellus erythrinus	Overexploited

Statistics and Information Systems

CATCH AND EFFORT	Data collected in line with the EU Data Collection Framework (DCF) EC 199/2008, EC 949/2008, EC 93/2010
FISHERIES INFORMATION SYSTEM	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

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	In Malta red coral is a strictly protected species listed in Schedule VI – Animals and Plant Species of National Interest in need of Strict Protection – of the Legal Notice 311 of 2006 (as amended) – Flora, Fauna and Natural Habitats Protection Regulations, 2006. Thus recommendation GFCM/35/2011/2 does not apply for Malta
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	The Fisheries Control Directorate conducts onboard observations on Drifting longlines and FAD. Catches of cetaceans are being monitored through this source
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Data on shark catches are recorded at the fish market and during onboard observations

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Determination of growth parameters for dolphin fish (*Coryphaena hippurus*) and collection of samples for genetic analysis for the determination of stock boundaries within the Mediterranean
Genetic analysis and tissue samples of *Octopus vulgaris* from Tunisian, Maltese and Sicilian waters (GSAs 12-16)
MESMA Monitoring and evaluating spatially managed marine areas
CREAM Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas
GAP Bridging the gap between fisheries scientists and fishers, through identification of nursery and spawning ground of commercially important demersal species

MARINE ENVIRONMENTAL STUDIES
Identification and mapping of the spatial distribution of sediment types and biocenoses, including the spatial distribution of sensitive habitats such as maerl beds
Researching the biology of prawns (*Palaemon* and *Processa* spp.) targeted by artisanal beam trawls traditionally used on *Posidonia oceanica* meadows

SOCIO-ECONOMIC STUDIES
Socio-economic data collected on an annual basis to fulfil the requirements of the Data Collection Framework (DCF) in line with Council Regulation EC 199/2008, Commission Decisions 2008/949/EC and 2010/93/EU, and the GFCM Task 1.3
Collection of fish-processing economic data based on Maltese business directory and processed fisheries products (postal questionnaires and interviews)

Involvement in activities of FAO Regional Projects

Proposal for future research programmes

Currently Malta is focusing on its Data Collection Framework, in view of the changes being proposed at EU level with regards to the Common Fisheries Policy

Monaco

No data provided

Description of the fisheries	
FLEET	
PRODUCTION	
ACTIVITIES	

Status of stocks of priority species	

Statistics and Information Systems	

National management measures and research projects related to GFCM Decisions	
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress
FISHERIES ECOLOGY/BIOLOGY STUDIES
MARINE ENVIRONMENTAL STUDIES
SOCIO-ECONOMIC STUDIES

Involvement in activities of FAO Regional Projects	

Proposal for future research programmes	

Montenegro | ***National Report 2013***

Description of the fisheries

FLEET	112 vessels (2012); 218 vessels (2011)
PRODUCTION	
ACTIVITIES	GSA 18

Status of stocks of priority species

Statistics and Information Systems

FISHERIES DATA COLLECTION	Fisheries Information System

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	Red coral is protected and not exploited in Montenegro it is protected by the "Resolution on protection on certain plant and animal species" (Official Gazette of Montenegro 76/06)
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	"Resolution on protection on certain plant and animal species" (Official Gazette of Montenegro 76/06) of the Environmental Protection Act (O.G, 51/2008) protect cetacean species (*Delphinus delphis, Stenella coeruleoalba, Stenella frontalis, Tursiops truncatus, Grampus griseus* and *Balaena physalis*)
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Under consideration for integragion of the legal acts in Montenegro

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Samples of eighteen economically important species were taken from vessels in three fishing ports (2011-2012)
MEDIAS Biomass estimation of small pelagic species in GSA 18 using DEPM and Acoustic method
MEDITS Biomass estimation of demersal resources in GSA 18
MORM-MONT Monitoring of coastal fisheries and fish fry composition along the Montenegrin coast, with the aim of conservation and sustainable management of marine fisheries
MARINE ENVIRONMENTAL STUDIES
Katić MPA establishment. Pilot project (2 phases) to be considered as an operational model for the development of a national system of MPAs in Montenegro
CAMP Coastal Area Management Programme
PPPOP Special Plan for the Coastal Area of Montenegro
SOCIO-ECONOMIC STUDIES
In 2011 the Pilot project on collecting socio-economic data in marine fishery has not developed. Further elaboration and continuation of this project is expected in the next period

Involvment in activities of FAO Regional Projects

AdriaMed	Several activities whithin the project framework

Proposal for future research programmes

Morocco | ***National Report 2013***

Description of the fisheries

FLEET	3 403 vessels (2011)
PRODUCTION	31 711 t (2011)
ACTIVITIES	GSAs 02 and 03

Status of stocks of priority species

Sardina pilchardus	In overfishing status
Pagellus bogaraveo	In overfishing status
Parapenaeus longirostris	In overfishing status

Statistics and Information Systems

FISHERIES AND ECONOMIC DATA	Institut National de Recherche Halieutique (INRH) in collaboration with Département des pêches maritimes (DPM) and l'Office National des Pêches (ONP)

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Stock assessment of shared stocks with Spain and Algeria

MARINE ENVIRONMENTAL STUDIES
Assessment of Interactions of fisheries on the environment
Monitoring sea turtles and cetaceans straddings in the area Tangiers- Jebha

SOCIO-ECONOMIC STUDIES
Socio-economic study of sardine fisheries
Socio-economic study of artisanal fisheries sector

Involvement in activities of FAO Regional Projects

Proposal for future research programmes

Marine Protected Areas
Monitoring Artisanal Fisheries activities in Al Hoceima National Park
Interactions between fisheries activities and marine mammals

Romania | ***National Report 2013***

Description of the fisheries

FLEET	488 vessels (200 active) (2011); 476 vessels (206 active) (2010)
PRODUCTION	568 t (2011); 258 t (2010)
ACTIVITIES	GSA 29

Status of stocks of priority species

Sprattus sprattus	60 000 t (2011); 59 627 t (2010)
Psetta maxima	1 495 t (2011); 1 148 (2011)
Merlangius merlangus	26 171 t (2011); 20 948 t (2010)
Squalus acanthias	1 619 t (2011); 13 051 (2010)

Statistics and Information Systems

FISHERIES DATA	National Institute for Marine Research and Development (NIMRD) database
VESSELS DATA	National Agency of Fisheries and Aquaculture (NAFA) data collection

National management measures and research projects related to GFCM Decisions

REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	"Adverse Fisheries Impacts on Cetacean Populations in the Black Sea" project to provide an analysis of the historical and current status of cetacean populations in the Black Sea and qualitative and quantitative assessments of their by-catch in Black Sea fisheries by fishery and fishing gear (Romania, Turkey and Ukraine). The scientific information and advice are sought to promote possible management actions at international level, based on sound scientific knowledge shared among the Black Sea riparian countries
	National level: "Reducing the impact of marine bioresources exploitation by developing eco-efficient solutions" Ministry of Education funded some activities related to assessment of the actual state of cetaceans populations at Romanian littoral and establish the methods for determining conservation status of the dolphins
	By-catch rates of cetaceans (according to Paragraph 3. of the Reccommendation): *see below*
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	Romania signed the MoU (Memorandum of Understanding) on migratory sharks, with the occasion of the tenth meeting of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals, in 2011 with objective of migratory sharks conservation, based on the latest scientific information available, given the socio-economic value of these species

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Reducing the impact of marine bioresources exploitation by developing eco-efficient solutions
NAFA/EC-DG MARE National Data Collection Program
Investigation and applied studies of the ecosystem approach to fishery in the Ionian Sea (Greece) and Black Sea (Romania)

Quality Intelligent Sensing and Information Processing technology for fish product during cold chain management Romania-China
Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries
CREAM Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas

MARINE ENVIRONMENTAL STUDIES
Obtaining the updated information to expand the European ecological network Natura 2000 (Special Areas of Conservation) in the Romanian marine areas
Water Framework Directives and Marine Strategy Implementation: influence of river contribution on the chemical composition and trophic status of Romanian transitional and coastal waters
RACE Radiation background of Black Sea coastal environment
ECOMAGIS Implementation of a GIS for Ecosystem-based Management, through integrated assessment of the biocoenosis status and evolution trends in the changing environment
NATO Bio-optical characteristies of the Black Sea
ODEMM Options for Delivering Ecosystem-based of marine management
OCEAN COLOUR Application for the Western Black Sea
SEADATANET II European infrastructure for Ocean and Marine Data Management
MY OCEAN II Development and pre-operational validation of upgraded GMES Marine Care Services and capabilities
PERSEUS Policy oriented Marine Environmental Research for the Southern European Seas
COCONET A Coast to Coast NETwork of protected areas: from the shore to the deep sea
MISIS Guiding Improvements in the Black Sea Integrated Monitoring System
Characterization of the benthic and planktonic communities on the Romanian continental shelf

SOCIO-ECONOMIC STUDIES
SymNET Industrial Symbiosis Network for Environment Protection and Sustainable Development in the Black Sea Basin
Obtaining the updated information to expand the European ecological network Natura 2000 (Special Areas of Conservation) in the Romanian marine

Involvement in activities of FAO Regional Projects

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

Proposal for future research programmes

Research regarding distribution and abundance of the two main species in the Black Sea: turbot and dogfish

Information submitted to the Secretariat according to GFCM RECCOMMENDATIONS

By-catch rates according to Paragraph 3. REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS

YEAR	2011
SPECIES	*Phocoena phocoena* (n=54)
FISHERIES AND GEAR	/
TIME AND LOCATION (GSA/STATISTICAL GRID)	29 (Romanian littoral)

YEAR	2010
SPECIES	*Phocoena phocoena* (n=15); *Tursiops truncatus* (n=2)
FISHERIES AND GEAR	/
TIME AND LOCATION (GSA/STATISTICAL GRID)	29 (Romanian littoral)

Slovenia

National Report 2013

Description of the fisheries

FLEET	175 vessels (01/01/2013); 186 vessels (01/01/2012)
PRODUCTION	329 t (2012); 719 7 (2011)
ACTIVITIES	GSA 17

Status of stocks of priority species

Sardina pilchardus	Fully exploited with no room for further expansion
Engraulis encrasicolus	Sustainably exploited

Statistics and Information Systems

FISHERY DATA	Centralized information system (InfoRIB)
VMS	VMS data
CONTROL AND MONITORING	Inspection information system (AQUASPEC)

National management measures and research projects related to GFCM Decisions

ON FISHING CAPACITY AND OPPORTUNITIES	Temporary suspension of the granting of commercial fishing licences (measures to be implemented in 2012–2013); Review of commercial fishing licences (measures to be implemented in 2013)
ON FISHING EFFORT	Reduction of the fishing effort by implementation of a permanent and temporary cessation of fishing activities (measures to be implemented in 2012–2013)
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
MEDITS Biomass estimation of demersal resources (since 1996)
MEDIAS Echo-survey performed by Italian scientists from CNR ISMAR (since 2007)
SOLEMON Evaluation of *Solea solea* and other flatfish stocks in the Central and Northern Adriatic and estimation of the impact of different gear in the frame of AdriaMed
MARINE ENVIRONMENTAL STUDIES
Biological and ecological characteristics and seasonal dynamics of five commercially important fish species in the Portorož Fisheries Reserve (2010-2013)
SOCIO-ECONOMIC STUDIES
Evaluation of the economic situation of the fishing sector, aquaculture sector, processing industry

Involvement in activities of FAO Regional Projects	
AdriaMed Project	Stock assessment of some species, eg. *Sardina pilchardus, Engraulis encrasicolus, Squilla mantis, Solea solea* ; cooperation in the framework of the SOLEMON project

Proposal for future research programmes

Spain | ***National Report 2013***

Description of the fisheries

FLEET	2 972 vessels (21/12/2011); 3 219 (31/12/2010)
PRODUCTION	60 031 t (2011); 46 071 t (2010)
ACTIVITIES	GSAs 01, 02, 05, 06 and 07

Status of stocks of priority species

Merluccius merluccius (GSA 01)	In overfishing status
M. merluccius (GSA 06)	In overfishing status
Pagellus bogaraveo (GSA 01)	In overfishing status
Aristeus antennatus (GSA 06)	In overfishing status
Parapenaeus longirostris (GSA 01)	In overfishing status
P. longirostris (GSA 06)	In overfishing status

Statistics and Information Systems

FISHERIES DATA	Collected by the General Secretariat for Fisheries of the Spanish Ministry
BIOLOGICAL DATA	Collected by the Instituto Español de Oceanografía (IEO)
ECONOMIC DATA	Collected by the General Subdirectorate for Statistics

National management measures and research projects related to GFCM Decisions

ON FISHING EFFORT	Order AAA/2808/2012 establishes a Management Plan for Fisheries Resources Conservation within the Mediterranean for purse seiners, trawl and artisanal fleet, for the period 2013-2017
ON ARTISANAL FISHERIES	Ministerial Order AAA/2794/2012 regulating artisanal fisheries ('artes fijos y menores') in the Mediterranean
ON RECREATIONAL FISHERIES	Royal Decree 347/2011 establishes a National Register of authorised vessels and species, fishing modalities, limits of catches, general conditions for recreational fisheries and competitions, prohibited practices, etc. Marketing of catches is strictly prohibited
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
MEDITS Biomass estimation of demersal resources
MEDIAS Acoustic survey of pelagic resources
Fisheries and landings data collection by IEO
Blue-fin tuna tagging project (commercial and recreational fisheries)
Swordfish routine collection of biological samples (mainly long-line) and tagging (commercial fisheries)
Research on maturity and growth of albacore (commercial and recreational fisheries)
Research on small tuna maturity and fecundity rates, age and growth

MARINE ENVIRONMENTAL STUDIES
Oceanographic conditions by IEO in GSAs 01, 05 and 06 under the framework of the activities developed to study climatic changes in the Mediterranean
TROFOALBORAN Project on Pelagic ecosystem trophic web dynamics influencing the early life stages of sardine and anchovy off their main nursery grounds
Research activities related with the effects of Marine Protected Areas on exploited communities, species and artisanal fisheries
LANBAL Selectivity of artisanal fisheries, with attention to diversity of species and in particular benthic structures, performance of different type of nets
COCONET A Coast to Coast NETwork of protected areas: from the shore to the deep sea
SARAS Project (Eurofleets/UE) focusing the very recent processes in the sea floor along Alboran Basin and margins
MONTERA Searching geohabitats on seamounts and related benthic communities
CONTOURIBER Project looking at the sedimentary dynamic of the drift deposits driven by contour currents around continental margins
MOSAICO AND TESELA Projects along the south east Iberian coastal zone searching the effects of the river discharges on the sea floor deposits and modelling
INDEMARES (2009-2013) Research, conservation and assessment of the sea habitats in order to comply with commitments regarding the Marine European Natura 2000 network and reinforce the application of international conventions on the sea
Research on the biology, ecology and fisheries of the lobster *Palinurus elephas* and on abundance of the endangered species *Pinna nobilis* in MPAs and control areas
SOCIO-ECONOMIC STUDIES
Information on statistics of the Spanish fishery sector are available (since 2008) at the Ministry of Agriculture, Food and Environment website

Involvement in activities of FAO Regional Projects

Proposal for future research programmes

For the assessment of marine resources much a greater attention is needed in taking into considerations 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

Syrian Arab Republic

No data provided

Description of the fisheries	
FLEET	
PRODUCTION	
ACTIVITIES	

Status of stocks of priority species	

Statistics and Information Systems	

National management measures and research projects related to GFCM Decisions	
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress
FISHERIES ECOLOGY/BIOLOGY STUDIES
MARINE ENVIRONMENTAL STUDIES
SOCIO-ECONOMIC STUDIES

Involvement in activities of FAO Regional Projects	

Proposal for future research programmes	

Tunisia

National Report 2013

Description of the fisheries

FLEET	> 12 000 vessels
PRODUCTION	109 160 t (2011); 102 066 t (2010)
ACTIVITIES	GSAs 12, 13 and 14

Status of stocks of priority species

Statistics and Information Systems

FISHERIES DATA	Ministère de l'Agriculture - Direction Générale de la Pêche et de l'Aquaculture (DGPA)
ARTISANAL FISHERIES DATA	DGPA with FAO CopeMed II: pilot action for collection and improvement of artisanal fisheries statistical data

National management measures and research projects related to GFCM Decisions

ON FISHING EFFORT	Trawling ban in Gulf of Gabés (GSA 14) between 1 July 2012 and 30 September 2012
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES
Demersals and Small Pelagics Stock Assessment and fisheries management and Improvement of gear selectivity
Stock assessments of hake and red shrimp within the FAO MedSudMed Project
Biology of elasmobranchs, feeding habits of two Dasiatids species
Genetic analyses of *Epinephelus* sp. Populations

MARINE ENVIRONMENTAL STUDIES
Monitoring of nesting sites and strandings of sea turtles
Identification of nursery areas for sharks and rays
Presence and localization of the Lessepsian puffer fish species *Lagocephalus sceleratus*
Studies on interactions between Delphinidae and maritime traffic in the northern coast of Tunisia
Habitat distribution in archipel de la Galite and bathymetric limits of coralligenous and inventory of mega-benthos species

SOCIO-ECONOMIC STUDIES
Bio-economic analysis of pelagic fisheries in Zarzis region
Socio-economic analysis of artisanal fisheries and assessment of management actions in lagoon de Boughrara

Involvement in activities of FAO Regional Projects	
MedSudMed	Stock assessments of hake and deep-sea pink shrimp

Proposal for future research programmes

Turkey

National Report 2013

Description of the fisheries

FLEET	17 165 vessels (2011)
PRODUCTION	477 658 t (2011)
ACTIVITIES	GSAs 22, 24, 28, 29

Status of stocks of priority species

Statistics and Information Systems

FISHERIES DATA	Fisheries Informatiom System (FIS) to collect, process, transmit, and disseminate fisheries and biological relevant data
VESSELS >15 M	Data collected by The Ministry of Food, Agriculture and Livestock; VMS device being implemented; Automated Identification System (AIS) onboard.

National management measures and research projects related to GFCM Decisions

ON TURBOT	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
EFFORT AND SELECTIVITY CONTROL	Minimum size restrictions have been enhanced for some species; prohibitions for use of some fishing gear and for some fishing zones have been introduced
REC. GFCM/35/2011/2 ON THE EXPLOITATION OF RED CORAL	It is prohibited to harvest red coral in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing
REC. GFCM/36/2012/2 ON MITIGATION OF INCIDENTAL CATCHES OF CETACEANS	It is prohibited to catch cetaceans such as dolphin, whale and seal in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing. Turkey has attempted to take measures to mitigate by catch of cetaceans. Turkey has involved in some bilateral pilot projects to reduce by catch (buoy gear project to prevent the usage of modified driftnet gear)
REC. GFCM/36/2012/3 ON FISHERIES MANAGEMENT MEASURES FOR CONSERVATION OF SHARKS AND RAYS	For all season, shark and rays catching are prohibited in all coastal lines of Turkey in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing

Other research projects in progress

FISHERIES ECOLOGY/BIOLOGY STUDIES

MARINE ENVIRONMENTAL STUDIES
Strengthening Protected Area Network of Turkey: Catalyzing Sustainability of Marine and Coastal Protected Areas

SOCIO-ECONOMIC STUDIES
Two studies on the status of Aegean fishery and northern Mediterranean and one on Mediterranean fishermen (2010)

Involvement in activities of FAO Regional Projects

Proposal for future research programmes

Appendix F (b) / Annexe F (b)

Countries national reports / Rapports nationaux des pays
(in original language/dans la langue d'origine)

- Albania/Albanie
- Algeria/Algérie
- Bulgaria/Bulgarie
- Croatia/Croatie
- Cyprus/Chypre
- Egypt/Égypte
- France/France
- Greece/Grèce
- Italy/Italie
- Japan/Japon
- Lebanon/Liban
- Libya/Libye
- Malta/Malte
- Montenegro/Monténégro
- Morocco/Maroc
- Romania/Roumanie
- Slovenia/Slovénie
- Spain/Espagne
- Tunisia/Tunisie
- Turkey/Turquie

ALBANIA/ALBANIE

Description of the fisheries

Description of the fishing grounds and GSA

The Albanian national waters extend in 12 marine mile (or 22 km) from the coast. The continental shelf in north is extended till 25 mile (Adriatic Sea) and 2–3 mile in south (Ionian Sea). The international waters over 25 mile from the Albanian coast in Adriatic part has a depth of 1000 meters and the marine bottom varies from sandy to slushy one, while in the south the depth of 200 meters can be reached nearly the coast. The Albanian territorial waters of Adriatic and Ionian together with international waters, according the depth stratum are estimated to be as below:

South Adriatic GSA 18	10-50m	50-100m	100-200m	200-500m	500-800m	**Total**
Area (KM)	568	2231	2186	1840	1910	8735

Total landings by main targeted species (in ton)

ANE	Engraulis encrasicholus	**7**
MUX	Mullus spp.	**132**
DEX	Dentex spp.	**22**
SOX	Soleidae	**68**
SQC	Loligo spp.	**52**
DPS	Parapenaeus	**209**
TGS	Penaeus kerathurus	**9**
GPX	Epinephelus spp.	**18**
SBG	Sparusaurata	**70**
SHD	Alosafallax	**30**
BSS	Dicentrarchuslabrax	**170**
HKE	Merluccius merluccius	**286**
OCC	Octopus vulgaris	**113**
DGX	Squalidae	**38**
SWO	Xiphiasgladius	**20**
GUY	Trigla spp.	**19**
MUL	Mugilidae	**160**
SKA	Raja spp.	**30**
PIL	Sardina pilchardus	**125**
CTC	Sepia officinalis	**90**
FRX	Rutilus spp.	**110**
MAZ	Scomber spp.	**52**
PAX	Pagellus spp.	**31**
JAX	Trachurus spp.	**170**
BOG	Boops boops	**88**
	Total production 2012 (fisheries & aquaculture)	**6950 tons**

Fishing fleet:

Vessel Type	Number	Total Power
Trawlers/Trawlers	223	57053.23
Seiners/Seiners	361	12923.09
Purse seiners/Purse seiners	3	357.94
Multipurpose vessels/Multipurpose vessels	10	4128.99
	597	74463.25

Basic Numerical Statistics

Length

No. of Observations	564	**Minimum**	1	**Maximum**	31
Total	6289.2	**Mean**	11.1511	**Mode**	5
Variance	55.0635	**Standard Deviation**	7.42048	**Standard Error**	0.31246
Confidence Interval	10.539 - 11.763				

GT

No. of Observations	564	**Minimum**	0.1	**Maximum**	163
Total	11029	**Mean**	19.555	**Mode**	1
Variance	980.936	**Standard Deviation**	31.3199	**Standard Error**	1.31881
Confidence Interval	16.970 - 22.140				

Power

No. of Observations	553	**Minimum**	0	**Maximum**	1081.3
Total	67310.6	**Mean**	121.719	**Mode**	18.64
Variance	20276.3	**Standard Deviation**	142.395	**Standard Error**	6.05525
Confidence Interval	109.851 - 133.587				

Status of stocks of priority species

In the frame of FAO AdriaMed project a pilot action to collect biological data collection in Albania (2013) is being initiated. In the frame of the MEDITS Programme (2004, 2008, 2010-2012) biological and abundance data of MEDITS target species are collected (Albania participation in MEDITS surveys is supported by FAO AdriaMed project). Biomass estimation of small pelagic resources with acoustic and DEPM survey are conducted since 2009 regularly with the support of FAO AdriaMed project (according to the EC MEDIAS protocol).

Status of the statistics and information system

The Fisheries Directorate has increased its administrative capacity becoming in two sectors: Fisheries and Aquaculture sector and monitoring and planning sector. The new sector of monitoring and planning has as duty data collection and processing that are collected at local level in the framework of the national plan of data collection.
The new law on fisheries is based on **Council Regulation (EC) No 199/2008 of 25 February 2008** concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy and **Commission Decision of 18 December 2009** adopting a multiannual Community programme for

the collection, management and use of data in the fisheries sector for the period 2011-2013. As explained above as implementation of this law will be approved a decision of Council of Ministers "concerning the 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".

To implement the obligations from the new legislations in process, the structure of the Fisheries Directorate is changed and is in further changing process.
Furthermore, under the new law on the inspectorate, the duties of fisheries inspectors would be linked only to the control of law enforcement. Currently fisheries inspectors are charged with collecting data, a task which will be extended to local monitors (15) foreseen to be recruited. Structure planned for this year's fishery Directorate is as follows:

- The duties of local monitors will be in line with National Program which will be approved by DCM.

The system of data collection based on log-books for fishing vessels over 10 meters LOA is not functioning normally. Logbooks currently should be collected by fisheries inspectors and sent to the Fisheries Directorate. With the assistance of IPA project has been prepared software as web application that enable to store log-book data entered into the system from inspectors or local monitors (in future). This software includes all areas of log books and has passed the testing phase and now is operative. Data should be entered in a protected web page to be elaborated from the Fisheries Directorate.
In regard of GFCM recommendations, Albania has fulfilled GFCM **Task 1**, in complete manner.

Status of research in progress

Scientific fishery survey Acoustic, DEPM, Medits, Biological sampling (starting from April 2013). Laboratory of Fisheries and Aquaculture uses ATRIS (AdriaMed Trawl Survey Information System) data base with trawl fishery survey data. The system, MS/Access based, offers some basic utilities to interface data with the Geographical Information System (GIS) and the possibility for easy exchange of date with other common software systems or data format.

Status of the social sciences studies in progress or achieved during intersessional period (economy, relevant legislation, sociology, etc.)

In the framework of the NPISAA 2010-2014, article 70 "Approximation of Legislation" and article 96 "Fisheries" of SAA, the Ministry of Environment, Forestry and Water Administration has finalized the **drafting** the new law **"On Aquaculture".** This Law, like the Law "On Fisheries" has been prepared with the assistance of IPA 2008 Project "Establishing and Strengthening of the System for Monitoring, Control and Surveillance (MCS) in Albanian Fisheries"(Europe aid/128433/C/SER/AL), The first law **"On Fisheries"** is approved by Council of Ministers and by Albanian Parliament, **(Law Nr. 64, of date31.05.2012*"On fisheries"***).As implementation of the new fisheries law are prepared 4 Decision of Council of the Ministers, which are in promulgation phase.

1. *The establishment of a National framework for the collection, management and use of data in the fisheries sector and support for scientific advice according the Albanian Fisheries Policy"*
2. *"Establishing a control system for ensuring compliance with the rules of the management fisheries policy";*
3. *"Management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea"*;

4. *"Establishing a system to prevent, deter and eliminate illegal, unreported and unregulated fishing (IUU)"*.

Also, the Regulation base to make possible Law **"On Fisheries"** application as well as to fully approximate the UE Directives is under preparation.

The social and economic aspects studies on marine fisheries have just started and are carrying up from Fisheries and Aquaculture Institute "HYDRA", by the FAO-AdriaMed support. This study follows the same study on 2005. The results from this study in progress will delineate a consolidated situation of social and economic aspects on marine fisheries of Albanian fleet.

Marine environmental studies in progress

The environmental studies and monitoring are carried up through the National Programme of Environment Monitoring. The MoEFWA publishes periodically the State of Environment Report. UNDP intervention includes nature conservation, protected areas (PAs) and land degradation. UNDP has supported MoEFWA to establish and strengthen protected areas in Albania, together with related management plans.

Involvement in activities of FAO Regional Projects

The **FAO-ADRIAMED Project** aimed at achieving a homogeneous level of knowledge that would allow undertaking ecosystem–oriented activities and setting-up common tools at sub regional level for the sustainable management of fisheries operating on shared stocks.
Fishery and Aquaculture Laboratory was directly involved in the monitoring of fisheries resources in the following scientific surveys:
Joint acoustic and ichthyoplankton survey (16/07-13/08/2012 – South Adriatic Sea – Albania, Italy, and Montenegro).
Extension to the eastern waters of the South Adriatic Sea (GSA18) of the MEDITS trawl survey (July 2012 - South Adriatic Sea – Albania, Italy, and Montenegro).

The participation of Albanian experts in the AdriaMed Working Groups on Fisheries Resources (Demersal and Small Pelagics) resulted in the joint analysis and stock assessment with Montenegro and Italy experts of shared stocks like *Merluccius merluccius*, *Parapenaeus longirostris* and preliminarily *Engraulis encrasicolus*. The stock assessment results were presented at the General Fisheries Commission for the Mediterranean (GFCM)/SAC - Working Groups on Demersal Fish and Small Pelagic Fish, where scientific advices for fisheries management were formulated for the South Adriatic Sea (GSA 18).
Regional collaboration, like different Technical Cooperation Projects under the FAO, GFCM (General Commission for Mediterranean Fisheries) and FAO-Adriamed gave a good support on aquaculture evaluation in general, in certification aspects of aquaculture products, and in monitoring the technical, social, environmental, and market issues on aquaculture, pointing out the strong points and, also the weak points, in a way of possible further supporting.
The above supports, especially in a frame of FAO-TCP (Technical Cooperation Projects) have been done through different workshops attended by the Inspectorate Structure/IMOC (Interinstitutional Operative Centre) centre and the different fishermen and aquaculture subjects.

Management measures:

With regard to: ***Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area.***

This kind of fishing has been (in former law) and is (new actual law) forbidden**.**

With regard to: ***Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM Area***

Fishing of this species is forbidden by the Law no. 64/2012 date 31/5/2012. The implementation regulation is under preparation by the Directorate.

With regard to: ***Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM Area***

Fishing of this species is forbidden by the Law no. 64/2012 date 31/5/2012.

Proposal for future research programmes

- To continue in demersal and pelagic stock evaluation in a way of having real knowledge of that stocks by the purpose of compiling the proper policies and management measures to guaranty a responsible and sustainable exploiting of the main marine resources.
- To further train the Albanian specialists on mathematical processing of data that have resulted from above mentioned evaluations.
- Re-evaluation of Small Scale /Artisanal Fisheries as a further evaluation made on 2005 in a way of having knowledge about the trendy of developments of this part of marine fisheries which has high economical, biological, environmental and social value.
- To be further supporting the Albanian legal and sublegal acts preparation of fishery and aquaculture field.

ALGERIA/ALGÉRIE

La production nationale des produits de la pêche et de l'aquaculture en Algérie a enregistré un total de **104 008,35 tonnes** pour l'année **2011**, soit une augmentation de près de **8 840** tonnes par rapport à l'année **2010.** Cette production est répartie comme suit:

- Poissons démersaux : **7 125,95**, soit **6,85%** par rapport à la production totale;
- Poissons pélagiques : **81 267,66 tonnes**, soit **78,13%** par rapport à la production totale;
- Crustacées : **2 401,04 tonnes**, soit **2,31%** par rapport à la production totale;
- Mollusques : **1 613,7 tonnes**, soit **1,55%** par rapport à la production totale.
- Autres produits (productions aquacole et plaisancière) : **11 600 tonnes**, soit **11,15%** par rapport à la production totale.

La flottille de pêche enregistrée en **2011** est de 4 316 **unités** pour une puissance totale de 60 954,15 CV. Cette flottille est répartie comme suit:

- 512 chalutiers;
- 1143 sardiniers;
- 2646 petits métiers;
- 15 thoniers.

État des stocks des espèces prioritaires

Les études d'évaluation des ressources démersales et pélagique à intérêt commercial réalisées au niveau du Centre National de Recherche et de Développement de la Pêche et de l'aquaculture) concernent particulièrement le stock exploitable de la sardine (*sardina pilchardus*) de la région de Beni Saf, situé à l'ouest de l'Algérie. Cette étude, basée sur les structures de taille pour la période 2005-2007 a révélé que cette espèce, capturée principalement par des senneurs exerçant dans la zone algérienne de la Mer d'Alboran, présente des tailles qui fluctuent entre 11 et 20cm de longueur avec une longueur moyenne de l'ordre de 16,5 cm. L'analyse de la distribution des fréquences de taille, fait ressortir une distribution à trois modes avec des valeurs respectives de 15,25, 17,25 et 18,25. La biomasse totale équilibrée est estimée à 14 068,31 tonnes où les gains, représentés par la croissance et le recrutement sont respectivement de 47,74% et 52,26% alors que les pertes causées par la mortalité naturelle et la mortalité par pêche sont respectivement de 69,46% et 30,54%. Aussi, la biomasse du stock reproducteur apparaît très importante et elle représente plus que 87% de la biomasse totale. La capacité de régénération du stock semble élevée (turnover = 121,73%).

La courbe de rendement par recrue ne présente pas de maximum d'où la nécessité de chercher d'autres points de référence biologique tel que le F0.1 dont la valeur a été estimée à 1. Ce résultat montre que le stock de la sardine exploité au niveau de la zone algérienne de la Mer d'Alboran est à son optimum.

Il est à signaler, que les résultats des paramètres de croissance, notamment ceux de la relation taille poids, sont similaires à ceux présentés par la partie marocaine et espagnole lors de la réunion du groupe de travail des petits pélagique de la Mer d'Alboran, tenue à Nador (Maroc).

Concernant les résultats de l'étude sur le stock de l'anchois (*engraulis encrasicholus*) de la région de Beni Saf, ils ne présentent pas de maximum, d'où il a été difficile de déterminer actuellement l'état d'exploitation de ce stock et ceci par manque de série chronologique des données issues de l'échantillonnage biologique.

Aussi, et dans la même région, une étude sur l'évaluation du stock de la crevette blanche (*Parapenaeus longirostris*) a été réalisée. Il en ressort que le stock de cette espèce dans la zone algérienne de la Mer d'Alboran est en état de surexploitation.

En se basant sur l'ensemble de ces résultats, que le groupe de travail de la CGPM sur l'évaluation des stocks démersaux tenu à Split du 05 au 09 novembre 2012 a recommandé l'adoption de mesures permettant une réduction de la mortalité par pêche de 50% au niveau de cette région.

État du système d'information et statistique

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.

Ayant également la tradition d'avoir une étroite collaboration avec des organismes internationaux dont le projet d'évaluation des ressources halieutiques (ERH) en coopération avec la Fédération allemande « GTZ » lancé en 1993 et qui avait comme objectif la mise en place d'un dispositif d'échantillonnage et de collecte de données bio-statistiques relatives à la pêche.

Le secteur s'est engagé en 2011 sur un projet en coopération avec la FAO/CopeMed dont le principal but est l'amélioration du système statistique actuel pour assurer la fiabilité des données statistiques en prenant comme référence les mesures et les recommandations des organisations régionales et internationales spécialisées notamment celles de la FAO, l'ICCAT et la CGPM.

En dépit des progrès et des efforts déployés pour atteindre cet objectif, il est important de rappeler, que le système statistique algérien reste contraignant en matière de fiabilité de données. Cette défaillance est principalement due au manque de cohérence entre les différentes structures intervenantes dans le domaine statistique de la pêche. Aussi, il est à mentionner, que le système a été jugé limité en matière des paramètres fournis notamment ceux relatifs à l'échantillonnage biologique, nécessaires pour les études sur les évaluations des stocks ainsi que les informations utiles pour les études socio-économiques.

C'est dans cette optique, que le projet de coopération avec la FAO/COPMED a été lancé pour la mise en place d'un observatoire socio-économique et statistique national des pêches. C'est un projet qui se propose d'être un outil capable de fournir des recommandations pertinentes à travers des études et analyses socio-économiques approfondies et fiables.

Ainsi, l'observatoire aura à définir, en collaboration avec les structures suscitées, les meilleures stratégies de développement du secteur notamment du point de vue économique, ce qui représentera un support et une aide pour toute prise de décision concernant la gestion rationnelle et durable des ressources marines. Il aura ainsi, les prérogatives suivantes :

- Établir des tables des comptes économiques par différentes segmentations;
- Effectuer des études micro économiques et financières des différents projets et investissements;
- Réaliser des enquêtes économiques et sociales;
- Assurer une évaluation économique régulière de l'effort de pêche;
- Élaborer des rapports de situation d'une façon périodique (semestriel et annuel);
- Proposer des orientations et des recommandations appropriées dans le cadre de la stratégie générale du secteur.

État de la recherche

Le Centre National pour le Développement de la Pêche et de l'Aquaculture « CNRDPA » a mis en place un programme d'évaluation des stocks halieutiques des côtes algériennes dans le cadre du Schéma National des activités de la Pêche et de l'aquaculture à l'horizon 2025.

Parmi l'ensemble des démarches entreprises pour les évaluations des stocks disponibles le long du littoral algérien, le Ministère de la Pêche et des Ressources Halieutiques a mis à la disposition de son Centre de Recherche, le navire BELKACEM Grine, réservé pour la formation et la recherche dans le domaine de la pêche.

Ainsi, une première campagne de prospection hydroacoustique des petits pélagiques des côtes algériennes (ALPEL 2011) a été réalisée du 18 septembre au 13 octobre 2011 à travers laquelle, les chercheurs du centre ont procédé à une prospection acoustique d'Est en Ouest entre les isobathes 20 et 500 m de profondeur. Au total 140 radiales ont été effectuées.

Cette campagne a permis d'avoir une idée ponctuelle dans le temps et dans l'espace sur la répartition spatiale et bathymétrique des bancs de petits pélagiques le long de la côte pendant la saison automnale et ceci par analyse géostatistique. Des données hydrologiques (température, salinité) ont été collectées afin de faire la relation entre l'abondance des espèces par zone en fonction des paramètres environnementaux.

De plus, quatre pêches ont été réalisées (au niveau du golfe de Béjaia, la baie de Zemmouri et à Ghazaouet) dans le but de tester l'ensemble des équipements existants à bord du navire de recherche (chalut, treuil, balances) nouvellement acquis.

De plus, durant cette campagne, un recensement des cétacés le long de la côte algérienne a été également réalisé.

La campagne de prospection hydroacoustique des petits pélagiques a été suivi d'une première campagne d'évaluation des ressources halieutiques de type démersales, lancée en mai 2012 dont le principal objectif, est l'évaluation des indices d'abondance des ressources démersales existantes entre les isobathes 20 et 800 mètres de profondeur pour chaque secteur du littoral algérien en utilisant un chalut de fond.

Néanmoins, les résultats de ces campagnes ne permettent pas d'avoir une idée sur les niveaux d'exploitation des différents stocks pélagiques et démersaux mais elles donnent seulement une image figée dans le temps et dans l'espace de ces stocks.

La répétition de ce genre de campagne permettra dans l'avenir de confirmer ou d'infirmer les différentes observations annuelles et permettra éventuellement de donner des résultats exploitables en termes de gestion.

Le secteur de la pêche en Algérie a également enregistré en 2011 une étude de la sélectivité du chalut à mailles carrées avec l'appui du projet CopeMed II. Ce projet, vient au renforcement de la coopération scientifique sous régionale dans le but d'une gestion durable des ressources halieutiques, notamment les stocks partagés qui représentent actuellement une préoccupation majeure. Les études menées contribuent au maintien de la durabilité des ressources halieutiques et leur interaction dans les écosystèmes marins en tenant compte des aspects biologiques, socio-économiques et environnementaux. Il apporte également son soutien pour l'amélioration du système de collecte des

données statistiques relatives à la pêche ainsi que le renforcement du cadre institutionnel national et international pour la gestion des pêcheries.

L'octroi du soutien du projet CopeMed II dans certaines activités de recherche considérées comme prioritaires sur le plan du renforcement de la collaboration et la coopération scientifique sous régionale ainsi que le transfert de technologie à travers la formation des jeunes chercheurs algériens.

Concernant les études menées dans le domaine de l'aquaculture au niveau du Centre National de Développement de la Pêche et de l'Aquaculture (CNRDPA), elles traitent particulièrement de :

- La reproduction du tilapia, sandre, et la crevette;
- L'intégration de la pisciculture à l'agriculture;
- L'essai de reproduction artificielle et élevage larvaire des espèces marines.
- Une étude comparative des stocks, de la biologie (reproduction, croissance) et de la qualité des mollusques bivalves issus de deux sites dans la baie de Bou- Ismail;
- Des études technico-économiques des fermes aquacoles;
- La sélection des espèces locales de micro algues et optimisation des conditions de culture des souches d'intérêt industriel.

Aussi, et à titre d'exemple, le secteur a connu une réussite dans une opération de reproduction de la crevette japonaise *penaeus japonicus* en 2011 dont la production de cette crevette a commencé par l'importation des géniteurs (femelles matures dans le milieu naturel) de l'Égypte au mois d'avril 2011. Les géniteurs ont été mis en bassins d'acclimatation, adaptation et amélioration de la maturité avec une alimentation à base de polychètes contenant plus de 60% de protéines. La ponte est provoquée par choc thermique suite à une augmentation de la température de 2 C°. Après un élevage larvaire d'une durée d'un mois, il y a eu obtention de plus de 2 000 000 post-larves de crevette de 2 cm de taille. Les post-larves ont été transférées dans des étangs de 2500 m² de surface pour un grossissement qui dure environ 4 mois.

Pour une première expérience, l'année 2011 a permis à la ferme de crevetticulture de Skikda, la production d'environ 800 kg de crevette dont la taille est comprise entre 10 et 20g.
Quant aux études qui traitent de l'industrie et transformations des produits de la pêche, visent essentiellement:

- La maîtrise des techniques de transformation et valorisation des produits de la pêche à faible valeur marchande;
- La valorisation des végétaux aquatiques: inventaire et valorisation des algues marines dans la région centrale d'Algérie;
- La fabrication d'aliment artificiel pour poisson.

Dans le cadre de la coopération algéro-européenne, le Secteur de la Pêche et des Ressources Halieutiques s'est également engagé dans le lancement d'un projet de jumelage P3A, intitulé « **Renforcement des capacités du Centre National de Recherche pour le Développement de la Pêche et de l'Aquaculture (CNRDPA)** ». L'objectif général, est d'assurer un développent et une gestion durable de la pêche et de l'aquaculture en Algérie fondés sur des avis scientifiques pertinents. Aussi, l'objectif spécifique, est d'optimiser le management et l'efficacité opérationnelle du CNRDPA en tant qu'instrument essentiel d'aide à la décision.

Textes réglementaires publies durant la période intersession 2010-2011

Les textes réglementaires publiés durant l'année 2011, relatifs à l'exercice de l'activité de pêche et d'aquaculture ainsi qu'à la recherche scientifiques se résument comme suite :

Concernant l'exercice de l'activité de pêche

Arrêté du 5 Joumada Ethania 1432 correspondant au 8 mai 2011 fixant les caractéristiques de la bouée de repérage utilisée pour la pratique de la pêche sous-marine **(JO n°35-2011).**

Concernant l'exercice de l'activité aquacole

Arrêté interministériel du 30 Moharram 1432 correspondant au 5 janvier 2011 fixant les seuils limites de présence de contaminants chimiques, microbiologiques et toxicologiques dans les produits de la pêche et de l'aquaculture **(JO n°25-2011).**

Études dans le domaine de l'environnement marin

Parmi les projets de recherche inscrits au niveau du Centre National de Recherche et de Développement de la Pêche et de l'Aquacultures et qui touchent le domaine de l'environnement marin, et à l'exception de ceux qui traitent particulièrement de l'halieutique, nous citons :

- Une étude de l'impact de l'aquaculture sur le milieu marin;
- Une étude de l'état des lieux de la contamination des eaux côtières

Aussi, depuis l'année 2010 et dans le cadre du Plan National de Recherche « PNR », deux d'entre eux, touchent à l'environnement marin. Ces projets portent sur:

- Le contrôle et surveillance de la pollution au niveau des eaux côtières : cas de la baie de Bou-Ismail (Wilaya de Tipaza);
- La contribution à la protection des eaux côtières algériennes contre la pollution chimique par application d'un nouveau procédé de traitement Electro-Fenton.

Recherche future

Les programmes de recherches futures concernent particulièrement:

- L'étude de la biologie de l'espadon capturé le long des côtes algériennes ;
- Suivi de l'évaluation des biomasses des stocks de la sardine, anchois, allache, bogue et chinchard européen et le chinchard à queue jaune;
- Étude portant sur l'ichtyoplancton des côtes algériennes;
- Étude de la biologie des thonidés mineurs des côtes algériennes;
- Introduction de nouvelles espèces pour l'aquaculture continentale;
- Étude de la biologie de quelques espèces de mollusques bivalves;
- Étude socio-économique concernant l'activité de la pêche artisanale en collaboration avec le projet CopeMed II;
- Identification des espèces d'algues rouges.

BULGARIA/BULGARIE

Description of the fisheries

Description of the fishing grounds and GSA

The Bulgarian marine fishery is taking place in the Black Sea (GFCM Fishing Sub-area 37.4 (Division 37.4.2), and Geographical Sub-area (GSA) 29). The opportunities of marine fishing in the country are limited by the specific characteristics of the Black Sea.

Fishing grounds

Everywhere in the Black Sea the fishing grounds are connected with the shelf, where the concentrations of the basic fishing resources are distributed and the routes of their migration pass. The fishing grounds of the Bulgarian sector are with small depths (up to 100-120m) from Cape Kartalburun to the river Rezovo in southern direction. Fishing by active fishing gears is carried out on small fishing vessels (>12m) in the 3-miles zone offshore. During summer (July-August), the most abundant fish species in front of the Bulgarian Black Sea coast is sprat, dwelling in the water column under the termocline (usually under 10.5 C) under 20 m. The warm period (May-October) is the main fishing season along the entire Bulgarian coast. During this period (starting in May) the spring migration of horse mackerel (*Trachurus mediterraneus*) and anchovy (*Engraulis encrasicolus*) occurs. The two species migrate near the shore for spawning and feeding. The second migration of horse mackerel occurs in September-October. During these months, depending on economic reasons (fuel price) many fishing vessels are orientated for (horse mackerel) active fishing with OTM in the southern part down the city of Bourgas.

Trap nets (59 with GPS and registered) were situated along the Bulgarian coast, being in the Southern region-Bourgas to Ahtopol with highest concentration. Very low percentage of the total catches belongs to the stationary pound nets. Most actively exploited demersal fish species in Bulgarian territorial waters is the turbot (with gillnets), excluding 45 to 60 day period of complete ban every year. Fishing free zones are those areas used as military polygons, and protected areas – e.g., regions in front of Cape Kaliakra (500m from the coast) and marine reserve Cockatrice in the southern BG part. Fishery beyond the 3-mile zone till 12 miles (EEZ zone) is permitted. The most intensive fisheries of the Black Sea sprat is conducted in April till October with mid-water trawls on vessels 15-30 m long and >30m (very small number). After 12 mile zone, special permission is needed for fishing. Harvesting of Black Sea sprat is conducted during the day, when the sprat aggregations become denser and are successfully fished by the fishing gears. The length of Black Sea sprat in catches makes up 65-120 mm. Whiting (*Merlangius merlangus euxinus*) represents bycatch of the sprat fishery (by active fishing gears) and is not fished independently. Its agglomerations are close to the bottom, usually under 60-70m depths. Highly migrating species like bluefish (*Pomatomus saltatrix*) and bonito (*Sarda sarda*) are being caught by passive fishing gears in the BG southern part (Sozopol, Nessebar, mostly) accidentally, during (August-October).

The *Rapana venosa* fishery is one of the main fishery activities with high economic value. Rapa whelk is fished by divers along the entire Bulgarian Black Sea shelf, more concentrated close to sea snail processing companies (Varna, Bourgas). Fisheries of picked dogfish and rays (thornback ray and stingray) are conducted with baited hooks and dogfish nets all year when the hydro-meteorological conditions are suitable, most often where sprat (its main food) are concentrated. Sturgeon fishery is banned with all means in the Bulgarian Black Sea waters.

Total landings by main targeted species

Species	FAO code	Total landings (kg)
Turbot (*Psetta maxima*)	TUR	36 378.08
Spiny dogfish (*Sq.acanthias*)	DGS	28 673.15
Gobies	GPA	89 468.91
Horse mackerel (*Tr.mediterraneus*)	HMM	381 485.59
Anchovy (*E.encrasicolus*)	ANE	8 816.00
Sprat (*Sprattus sprattus*)	SPR	2 830 412.90
Bluefish (*P.saltatrix*)	BLU	552 497.64
Thornback ray (*Raja clavata*)	RJC	68 580.09
Grey mullet (*M.cephalus*)	MUF	24 693.50
Rapa whelk (*Rapana venosa*)	RPN	3 793 254.50
Red mullet (*M.barbatus*)	MUT	132 432.76
BS silverside (*A.mochon pontica*)	SIL	28 149.48

Total landings – commercial fishery for the period of 01.01 – 31.12.2012

Fleet - number of fishing vessels, LOA, kW, GT

Length (Loa)	*To 31.12.2012*			
	Number	**Mean length**	**GT**	**Power kW**
> 6 meters	805	4.9	582.1	6 506.6
6 to 11.99 m	1 466	7.2	3 128.6	39 443.6
12 to 17.99 m	64	14.4	1 226.7	8 853.2
18 to 23.99 m	20	21.0	890.1	3 714.4
Over 24 m	11	25.6	1 233.7	2 847.9
total	**2 366**	**6.8**	**7 061.3**	**61 365.6**

Status of stocks of priority species

Assessments of the Black Sea stocks

The assessments of the Black Sea resources are compromised by the paucity of fishery-independent survey data. In addition, in the absence of fishery-independent estimates of recruitment, the results of short-term catch predictions are also uncertain.

Four of the stock assessments undertaken, sprat, turbot, anchovy and whiting, were of sufficient quality to provide analytical estimates of recent exploitation rates and stock status in relation to proposed biological reference points. Although the assessments for sprat, anchovy and whiting are considered sufficiently reliable to be used as a basis for short-term catch forecasts, the assessment results for turbot are less reliable and are indicative of relative trends only.

Similarly, the assessment results for horse mackerel and red mullet should be treated as provisional, are only indicative of trends and are not sufficiently reliable to be used as a basis for catch forecasts. The results of the assessment of picked dogfish were inconclusive with respect to stock status.

Based on the results of assessments for sprat, turbot, anchovy and whiting, STECF proposes that the following limit reference points be adopted as appropriate proxies for FMSY and which are consistent with high long-term yields:
Sprat: FMSY = F≤0.64 , consistent with the exploitation rate E≤0.4
Turbot : FMSY = Range (F0.1-FMAX)is F=0.07 – F= 0.15
Anchovy FMSY = F≤0.54 , consistent with the exploitation rate E≤0.4
Whiting: FMSY = F ≤0.40

In relation to the above proposed reference points the current status of sprat, turbot anchovy and whiting in the Black Sea can be summarised as follows :
Sprat: Fishing mortality in 2011 is estimated to be F = 0.8. STECF concludes that in 2011, the stock was subject to overfishing (F>FMSY). STECF notes that results of the 2012 assessment are consistent with those from the 2011 assessment.
Turbot: Fishing mortality appears to be at an historical high and is almost 6 times FMAX. Survey indices and relative trends in the stock from the assessment indicate that the stock size is at a historical low and SSB is less than 10% of the estimated SSB at the end of the 1970s. STECF concludes that the stock is severely depleted and is being exploited at an unsustainable rate.
Anchovy: Fishing mortality in 2011 is estimated to be F = 1.3. STECF concludes that in 2011, the stock was subject to overfishing (F>FMSY).
Whiting: Fishing mortality in 2011 is estimated to be F = 0.66. STECF concludes that in 2011, the stock was subject to overfishing (F>FMSY).

Based on the EWG 12=16 review of gill net selectivity for turbot in the Black Sea, STECF concludes that further work is required before new recommendations on gill net selectivity as a potential management instrument can be provided (STECF,2012).

Based on the results of the assessments for Black Sea anchovy, sprat and whiting, STECF proposes that catch limits in 2013 for these stocks be set in line with the fishing mortality reference points proposed above.

Adopting such an approach implies that catches in 2013 should be less than or equal to the following:
Sprat 64,000 t
Anchovy 141,616 t
Whiting 4,971 t

As there is no international allocation key for either of the above species, STECF is unable to advise on a specific EU TAC for sprat anchovy or whiting.

Given the estimated dramatic decline in the stock biomass of turbot in the Black Sea and the extremely high annual estimates of fishing mortality, STECF advises on the basis of precautionary considerations that there should be no fisheries for turbot and individuals caught unintentionally should be promptly released. STECF considers also that an international management plan should be initiated to restore spawning stock biomass to the level capable producing maximum sustainable yield.

The geographical area covered by the above described assessments is Black Sea (GFCM Fishing Sub-area 37.4 (Division 37.4.2), and Geographical Sub-area (GSA) 29).

Status of statistics and information system

The information-statistics system (ISS) of NAFA Bulgaria has been created in relation with the engagements of Bulgaria, based on the EU legislation, which after the country accession to the EU (01.01.2007) became compulsory. With ISS creation centralized collection and storage of the information has been initiated. The data are in numerical format which is base for:

- Check of confidentiality of the input data;
- Analysis of data and possibility to detect the unconformities;
- Control on the activities;
- Data summarize aiming the presentation to the EU and other international and national organizations.

NAFA supports through ISS the following registers:

- Register of the commercial fishery permissions issued;
- Register of the issued tickets for recreational fishery;
- Register of the persons, dealing with aquaculture;
- Fishing fleet register;
- First sale centers registers;
- Traders register;
- Producers register;
- Register of fish producers and other aquatic products branch organizations;
- Fishery permissions for scientific purposes register;

ISS of NAFA represents electronic database and it consists of organized information fields/units, allowing messages to be generated. These information fields/units are maintained in a way that guarantees the protection of the information against destruction, illegal amendment or usage.

On the basis of the collected data, management decisions and state policy and aims regarding the conservation of the stocks are undertaken and defined. On this basis are elaborated measures promoting increase of fish and other aquatic organisms consumption.

In 2012:

- There were no crucial amendments implemented in the ISS.
- According to amendments of the national legislation (art. 18e, al. 9 of Fisheries and Aquaculture Law) NAFA should be in the position to have the following information at its disposal: general information and economic statistics of the fishing vessels; data on the employment in the sector and on fishing activities.

The data generated through the ISS is used for exchange of information with national, European and International organizations: EC, GFCM, ICCAT, FAO, EUROSTAT.

Status of research in progress

Enlargement of the ecological network Natura 2000 in Bulgarian Black Sea territorial waters to overcome the mid incompleteness regarding marine habitats 1100" temporary covered by marine water sand and muddy shallow waters and 1170"Reefes"; species 4125 *Alosa immaculata*, 1349 *Tursiops truncatus* и 1351 *Phocoena phocoena* and partially fill of the habitat 1180 "Underwater structures, created under the action of soaking gases" and species 1349 Tursiops *truncatus* scientific reserves.

Data collection program (DCR 199/2008 EC) in Bulgarian and Romanian part of Black Sea – scientific cruises for estimation of abundance and biomass of turbot (swept area method).

Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries (SRCSSMBSF)
Training course "Working visit and training of specialists in Trabzon", organized by Central Fisheries Research Institute, CFRI-Trabzon, under project "Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries (SRCSSMBSF)"

Overall objective
Cooperation between the Black Sea riparian countries for knowing and rationally managing the marine ecosystem and its resources, carrying out diagnostics of fish stocks status as well as advice on management strategies. The major task is to develop methods for joint-regional stock assessment for the Black Sea that will ultimately enable researchers to determine the condition of stocks and advice on management strategies.

Specific objectives
- Harmonization of methods and tools to assess the present state of fish stocks by scientific surveys, holistic models;
- Alignment of the common methods for sampling, processing and interpretation data from fisheries and stock assessment using analytic models;
- Awareness of the fishery organizations and decision–makers from national fisheries regarding the need to use in the management strategies of the advice from research and joint – regional stock assessment.

Assessments on Black Sea stocks - http://stecf.jrc.ec.europa.eu/documents/43805/409649/12-11_STECF+12-15+-+Black+Sea+Assessments_JRC76532.pdf

"Bulgaria-Japan Research Collaboration for Sustainable Development"

Bulgarian Academy of Sciences (hereinafter referred to as "BAS") and Science Council of Japan (hereinafter referred to as "SCJ") concluded the bilateral Agreement of Cooperation on 30 th March 2012, with the purpose to promote Basic and Applied Sciences as well as Humanities and Social Sciences. In the Agreement of Cooperation, Energy Recourses and Energy Efficiency; Nanosciences, New Materials and Technologies; Biomedicine and Quality of Life; as well as Climate Changes and Risks are specified as the areas of cooperation to put special attention. Per this Agreement of Cooperation, BAS raised its proposals with the detailed information such as names of Bulgarian researchers, backgrounds, summaries of researches, and names of Japanese researchers to actually collaborate with.
Among those, SCJ identified some proposals from BAS, which relates to a key item, that is "Sustainability. "While consulting with the BAS side, SCJ started planning to host a kick-off meeting, where relevant researchers of counties, as well as some of Japanese industries and others which had and are currently enjoying some relations with Bulgaria can get together.
The ultimate objective of this meeting is bridging the researchers of the two counties, hoping that such a small event will stimulate further and active research collaboration, as well as drawing attention of Japanese scientists and relevant Japanese organizations for possible new partnerships with Bulgarian researchers and scientists in the future.

OCEAN. 2011-3: Assessing and predicting the combined effects of natural and human-made pressures in the Mediterranean and the Black Sea in view of their better governance
Subtask 1.1.5. Fisheries and non-indigenous species

Monitoring of fish biodiversity and cetaceans under MFSD and WFD contract between IO-BAS and Ministry of Environment and water – Bulgaria.

COMFISH Strengthening the impact of fisheries related research through dissemination, communication and technology transfer

ComFish takes the view that it is not sufficient to focus on pressing issues in fisheries or on communication impasses between stakeholders in isolation (scientists – industry – policy makers). A broader view is necessary, and this is very much in line with the ecosystem approach of the revision of the Common Fisheries Policy to be implemented in 2012.
In this frame of mind, ComFish aims to identify important fisheries topics with long term impacts and ascertain whether scientific results have been properly communicated to fisheries stakeholders. If yes, why and how was this done? If not, then the question must be answered which communication needs must be addressed. What are the related challenges, needed actions and possible solutions?
ComFish will identify these topics and through five regional participatory stakeholder events address these communication impasses. Next, ComFish will use the outcome of the events to prepare Information Packages, that include audio-visual materials, and communicate the identified priority issues to a wider circle of stakeholders as well as to EU citizens. Finally, ComFish will organise a Partnering Event to facilitate network building amongst stakeholders, to jointly address and overcome communication impasses and to stimulate collaborations. All activities are supported by a robust science based impact analysis.
ComFish has nine partners in eight EU countries: four are communication specialists and five are institutions engaged in marine research and policy advice. The project benefits from an extensive Advisory Board with representation from all major fisheries stakeholders in Europe as well as over 40 Project Associated Members, mostly FP6/FP7 research project co-ordinators. The project lasts 36 months."
Methodology
The project will facilitate exploitation and transfer of national and European research results through friendly-user applications and technologies. Specific attention should also be given to dissemination towards the EU citizens. The ComFish project proposes to use a mix of innovative and well tried mechanisms to improve communication and uptake of scientific knowledge amongst the stakeholders. This includes the following activities:

- Stakeholder-led regional focus meetings with science-based post- and inter-event evaluations.
- presenting and discussing scientific results, practical solutions and novel technologies to the stakeholder groupings and individuals that either take part in the ComFish network or will join the network once the project takes shape.
- use of multimedia to disseminate the accumulated knowledge to key stakeholder groupings, including the youth and the general public.
- final project meeting to present the project's deliverables, stimulate B2B contacts and discuss future activities and developments.

The activities will contribute to a better networking of the key stakeholders from the EU and beyond, encouraging uptake of innovation and knowledge by specific stakeholders and contribute to raising awareness of the EU fisheries policy among the public.

Knowledge-based Sustainable Management for Europe's Seas (KnowSeas)

The overall objective of the project is to provide a comprehensive scientific knowledge base and practical guidance for the application of the Ecosystem Approach to the sustainable development of Europe's regional seas. This will increase the evidence base available for decision makers and facilitate the practical implementation of the Ecosystem Approach, currently seen by some stakeholders as confusing and nebulous. It will be delivered through a series of specific sub-objectives that lead to a scientifically based suite of tools to assist policy makers and regulators with the practical application of the Ecosystem Approach. It is also expected to deliver high quality scientific outputs that advance our understanding of coupled social and ecological systems.

Monitoring and Evaluation of Spatially Managed Areas (MESMA)

Aim of Black Sea Case Study
We will focus in this case study on environmental improvement and cross border issues related to marine spatial planning. Important topics will be:

- International cooperation and agreements for sustainable development and protection of the Black Sea ecosystem,
- Assessment of establishment of a cross border Network of marine protected areas to represent the Black Sea Basin and stop further deterioration of the Black Sea marine environment, as well as actions to manage and plan human use and activities,
- Use of plankton species, such as e.g. jelly fish, as indicators for water quality changes in the system and human impact.

In the case study we will describe and analyze the links between economic, social and ecological marine spatial planning processes with the aim of provide practical input for the development of a long term strategy towards evaluation and monitoring of marine spatial planning in the Black Sea, both national and regional.

Options for Delivering Ecosystem-Based Marine Management (ODEMM)

Project objectives
The overall aim of the ODEMM project is to develop a set of fully-costed 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. The key objective is to produce scientifically-based operational procedures that allow for a step by step transition from the current fragmented system to fully integrated management.

Methodology
This will be achieved by: (1) providing a comprehensive knowledge base to support policy for the development of sustainable and integrated management of European marine ecosystems: (ii) developing Operational Objectives to achieve the High-Level Policy Objectives
set by the MSFD and the HD, and with reference to the proposed Maritime Policy; (iii) identifying Management Options (individual management tools and combinations of tools) to meet the Operational Objectives; (iv) providing a risk assessment framework for the evaluation of Management Options and to assess the risk associated with the different options; (v)conducting a cost-benefit analysis of a range of Management Options using appropriate techniques; (vi) identifying stakeholder opinions on the creation of governance structures directed towards implementation of the ecosystem approach, and to elaborate different scenarios for changing governance structures and legislation to facilitate a gradual transition from the current fragmented management approach towards fully integrated ecosystem management; (vii) documenting the steps necessary for the transition from the

current fragmented management scheme to a mature and integrated approach, and providing a toolkit that could be used to evaluate options for delivering ecosystem-based management, and (viii) communicating and consulting on the outcomes of the project effectively with policy makers and other relevant user groups.
Major steps forward in methodology and knowledge base related to sustainable management and regional governance of the European marine environment will be made in this project. These will be published in journal articles, and through a series of technical reports or electronic newsletters and briefings. In addition to this a number of key results or expected outputs are listed below:
1. Technical report of the 'Current State of Knowledge on the Sustainability of European Seas'
CREAM FP7 Coordinating research in support to application of EAF (Ecosystem
Approach to Fisheries) and management advice in the Mediterranean and Black Seas "

The project is organized in 6 work packages:
i) Project Coordination
ii) Review of current knowledge in data collection and methodological practices in assessment and management
iii) Identification of data needs, quality, harmonization, methodologies and models for EAF
iv) Establishing coordination with the assessment and management international/regional bodies
v) Training and capacity building. Symposium. Dissemination component
vi) Strengthening the scientific basis of EAF application in Mediterranean and Black Sea fisheries

Project on the Studies for carrying out the Common Fisheries Policy: Adverse Fisheries Impacts on Cetacean Populations in the Black Sea

A. A review and analysis of all national and international legislation aiming at
the protection and conservation of cetaceans in the Black Sea, with identification of possible gaps and loopholes in the legislation or in its implementation. Also included in the review is a rapid assessment of the capacity of existing national fisheries legislation in Bulgaria, Romania, Turkey and Ukraine

B. Collection of new data from Bulgaria, Romania, Turkey and Ukraine and a review of existing information from all coastal States on harbour porpoises *Phocoena phocoena*, common dolphins *Delphinus delphis*, and bottlenose dolphins *Tursiops truncatus* in the Black Sea and their interactions with fisheries in the Black Sea including the following aspects:
Evolution of the size of the cetacean populations and understanding whether these populations are known to be/have been residential and local or with a wide home range and migration paths within the Black Sea and between the Black Sea and the Mediterranean;
A historical overview of the interactions between cetaceans and Black Sea fisheries; Collection and analysis of data on fishing fleets in each of the surveyed countries, stratified by fleet segment and fishery, to include temporal trends in effort and capacity, the present situation, average number of days fished per strata per year;
Detail of fishing gear used by each strata, including maximum dimensions of each gear type in use;
and Identification of fisheries and fishing gears with highest by catch of and impact on any of the
three cetacean species being surveyed, with a focus on:
By catch rates and mortality in different fisheries/fishing gears by species;
Areas and periods with high bycatch rates;
Criteria used for diagnosis of bycatch rates and for assessing impact of bycatch on populations;
Demographic components of cetacean populations most prone to bycatch mortality.

C. Implementation of cetacean surveys in the western Black Sea, including Bulgaria, Romania and Ukraine (comprehensive aerial and boat surveys), and for the entire Black Sea (opportunistic survey

using ferry routes) with subsequent synoptic assessment of cetacean abundance and distribution, and identification of hot spots and critical habitats.

D. Identification of means of reducing cetacean bycatch by Black Sea fisheries exhibiting high rates of bycatch through a critical review of existing literature and preparation of a draft regional strategy for reducing cetacean bycatch in the Black Sea

Marine environmental studies in progress

In 2012 has been initiated monitoring program of the Ministry of Environment and water - Bulgaria and IO-BAS under the WFD and MSFD 2008/56/EO;
The results are about to be presented and evaluated.
Obligation of Bulgaria is to prepare and to present the Initial assessment for GES of marine waters under MFSD which is in progress.

Involvement in activities of FAO Regional Projects

FAO BlackSeaFish

The main expected results of the project are:

- Identification of main issues relevant for cooperation in fisheries research, fisheries management, monitoring, control and surveillance (MCS) of fisheries and fisheries data collection in the Black Sea;
- an improved regional network of fisheries research and management institutions with mechanisms for dialogue and exchange among them;
- a document for a project in support of the countries in developing their capacity and the regional scientific, technical and institutional cooperation and exchange necessary to support responsible fisheries in the Black Sea, in accordance with the FAO Code of Conduct for Responsible Fisheries and the Ecosystem Approach to Fisheries;
- Reinforced regional cooperation on fisheries issues.

Activity 1- National Overview Reports

- The first activity of the preparatory project will be the preparation of the National Overview Reports by the National consultants that will serve as the basis for the preparation of the full phase project.

Activity 2 – Formulation Mission

- After reviewing the National Overview Reports, the drafting team will visit the countries in the region, and will hold interviews with responsible officials and selected stakeholders, to obtain their views on possible priority issues and desirable approaches. Based on the Overview reports and these country visits, as well as on the documents previously prepared by the GFCM, the BSC and other organizations, the drafting team will prepare a document (Concept Note) summarizing and organizing the different priority issues identified by the countries, and proposing possible options for the project approach and activities. This will form the basis for discussion at the regional coordination workshop.

Activity 3 – Coordination workshop

- A regional coordination workshop will be organized, bringing together the representatives of the countries, including the Directors of Fisheries and the NFPs, as well as representatives of relevant regional organizations, to discuss the national overview reports, and design the project framework. This will include the identification of national and main common subregional priorities, the preliminary selection of issues and the preferred approach, including the definition of the institutional partners to the project. These elements will form

the basis of the first draft of the project document which will be finalized by the drafting team and sent by FAO to the different participating countries for comments.

Activity 4 – Validation Meeting

- At the validation meeting, the final draft project document, including the comments received, will be presented to participant countries and potential donors for approval and funding proposals.

Management measures

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

With regard to: ***Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area***
Not applicable for the Black Sea.

With regard to: ***Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area***
No information available.

With regard to*: Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*
Not applicable for the Black Sea.

CROATIA/CROATIE

Description of the fisheries

Croatian fisheries are carried out within the GSA 17 – Northern Adriatic and GSA 18 – Southern Adriatic. Majority of catches are realized within the GSA 17. Fisheries are divided in several main segments – small pelagic (purse seine) fishery, bottom trawl and other towed fishery, fixed gear fishery, bluefin tuna fishery and coastal (artisanal) fishery.

Total landings by main targeted species (in tons) in 2011

	2011
Sardina pilchardus	45805,34
Engraulis encrasicolus	14330,56
Scomber japonicus	483,21
Mullus barbatus	1090,16
Merluccius merluccius	775,06
Eledone spp	449,9
Trachurus spp	355,27
Nephrops norvegicus	283,3
Spicara spp	207,62
Octopus vulgaris	147,87
Solea solea	314,88
Boops boops	117,17
Sprattus sprattus	56,1
Parapenaeus longirostris	151,22
Oblada melanura	55,58
Loligo vulgaris	149,23
Pagellus erythrinus	102,57
Sarpa salpa	64,67
Triglidae	58,95
Lophius spp.	111,2

Note: Total landings in 2011 in Croatia were 69700,75 tons.

Vessels registered for commercial fishing
(source: Croatian Fleet register):

number of vessels	4232	
LOA (range and average)	**number**	
< 12 metres	3579	
12 - 24 metres	523	
more than 24 metres	130	
Total kW + GT	45469,65 GT	336026,52 kW

Note: The data provided are preliminary, as the fleet register is still being cross-checked and verified. The figures in the table do not include small scale artisanal fisheries for personal needs, which shall be adequately reflected following the re-structuring currently ongoing.

Status of stocks of priority species

Small pelagics

Abundance indices of small pelagic (anchovy and sardine) evaluated by means of fishery independent methods (i.e. acoustic survey), showed large annual fluctuations. Acoustic estimates (anchovy and sardine abundance) from eastern and western part of GSA 17 have been used for joint VPA assessments performed within AdriaMed Project framework (Ljubljana, 2012:, The AdriaMed Working Group on Small Pelagic Fishery Resources in the Adriatic Sea) and presented to SCSA-WG on stock assessment of small pelagic species (Split, 2012) Outputs of these VPA assessments demonstrated that both stocks (anchovy and sardine) in GSA 17, in relation to their estimated biomass levels in (2011), can be considered as fully exploited. The WG suggests that future assessments take into account combined data from 17 and 18 GSAs, and, also suggests continuing to explore the relationships between recruitment and environment.

Demersal resources

Assessment of common sole (*Solea solea*) stock in GSA 17 has been performed and presented to SCSA (Rome, 23 - 26 Jan. 2012). According to this assessment, as in previous year, recent state of stock is characterized as "overfished". Management advice is similar as the previous years: reduction of fishing mortality, especially by rapido trawling along western Adriatic coast. A preliminary stock assessment document has been performed and presented to the SCSA for red mullet (*Mullus barbatus*) according which stock showing stabile state of recruitment and SSB, but fishing mortality is above safe limit.
According to the scientific surveys MEDITS, long-term trends in biomass index in Croatian fishing sea shows high fluctuation with negative changes in last 2-3 years for the most important stocks as hake, Norway lobster, selachians etc. Those changes are visible primarily in the decrease in the biomass of recruits in the extraterritorial waters in the open Adriatic Sea (Jabuka pit) which are known as spawning and nursery areas for majority of demersal stocks. Situation with the most important demersal stocks hake and red mullet show increase in the index of biomass and index of abundance, mainly due to the good recruitment in the last year.

Status of the statistics and information system

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. The Fleet Register is a centralized structure, where field offices enter the data which are all immediately recorded and stored in a central database. Data on the vessels (GT, kW, technical elements) are obtained from official documents issued by other relevant institutions (Ministry of maritime affairs, transport and infrastructure - Croatian Register of Shipping and Croatian Register of Boats).
Republic of 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.
Croatia has since 2000 been implementing the obligation of all license holders to keep and submit the logbooks on fishing activities. According to the provisions of the national regulation, all license holders operating with fishing vessels equal to or longer than 10 m have to keep and submit the logbook. Logbook contains the data on catch and landing per species and quantity. Data on catches over 10 kg has to be entered into the logbook for all species.
First sales of catches are regulated as has been explained in the report for previous years.

All sales data are reported via a web-based application in an electronic form. These data include relevant information on the vessel and the buyer, as well as on prices and quantities.
Croatia has in 2011 embarked on installation of electronic logbooks on all its vessels over 15 m in length (since 1st.January 2012 the system is operational on all vessels over 18 m LoA). The process is continuing.

Status of research in progress

Monitoring of small pelagic stock by acoustic survey (PELMON) is based on annual fishery independent evaluations of stocks abundance by annual acoustic surveys, combined with collection of environmental data related to pelagic ecosystem. In addition, collection of biological and fisheries related data as needed for fishery dependent assessments (i.e. VPA) has also been undertaken through project PERIMON.
Project "DEMMON", monitoring of demersal stocks has been continued, aiming at status evaluation of demersal resources in the Croatian fishing sea. Fisheries and biological data collection includes on board sampling and laboratory analysis, sampling on the landing ports and gathering basic socio-economic data.
Monitoring of coastal fisheries is organized through PRIMO project, and it includes fisheries biological sampling on most important fishing gears (trammel and gill nets, as well as long lines and traps). Croatian scientists are included in project *"MEDITS" Mediterranean International Bottom Trawl Survey* permanently since 1996.
All monitoring projects have in 2012 been included in the data collection framework for 2012-2013, pursuant to EU regulation in force (DCF).
Project *"SOLEMON" Evaluation of stock of Common Sole (Solea solea) and other flatfish in the Adriatic sea* is an international project under umbrella of FAO AdriaMed for evaluations of common sole and other flatfish using "beam trawl" (rapido).
Project *"DEEP SEA"* is an international project started in 2008 under framework of FAO AdriaMed. The aim of the project is investigation of distribution and status of biological resources in deep south Adriatic.)
Project *"UWTV Survey"* is an international project under umbrella of FAO AdriaMed for alternative assessment of biomass stock of Norway lobster in the Jabuka/Pommo pit using underwater camera. Survey was conducted in 2011 together with scientists from Ancona.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.).

Social and economic studies are currently being developed within the definition of the national data collection program fully in line with the EU DCF rules.

Marine environmental studies in progress

Croatia has been conducting a permanent national monitoring project "Systematic exploration of the Adriatic Sea as basis for sustainable resources management" which includes monitoring of biotic and abiotic parameters relevant to the marine environmental and renewable resources. Environmental data related to the marine ecosystems are also gathered in the framework of monitoring programs for fishery resources.

Involvement in activities of FAO Regional Projects

Croatia is fully involved in all activities conducting within Regional FAO AdriaMed project.

Management measures

All recommendations on bluefin tuna and swordfish in Mediterranean Sea as adopted by ICCAT and GFCM are fully incorporated in Croatian legislation and have been implemented in the inter-sessional period.

With regard to: ***Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area***

Croatia is in an advanced stage of preparing a legal act, which will fully incorporate the provisions of GFCM into national legislation.
Traditional areas for collecting red coral are in the territorial waters of the Croatian open fishing sea mostly in central and southern parts at depths greater than 50 m.

With regard to: ***Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area***

No by-catches of cetaceans were recorded in 2012.

With regard to: ***Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area***

Ban on use bottom-set nets to catch certain species of sharks including: *Hexanchus griseus*, *Cetorhinus maximus* and all species of the families *Alopiidae*, *Carcharhinidae, Sphyrnidae* and *Lamnidae*, is in force since 2010. There were no recorded by-catches of Annex II or III shark species.

Proposal for future research programmes

Support from Regional FAO AdriaMed Project related to fisheries research and management within Adriatic Sea (GSA 17&18) has been very important. It is deemed necessary to continue with the activities in this framework.
Consideration should be given to international monitoring of demersal resources in Jabuka Pit. Jabuka/Pommo Pit is a principal fishing ground in the Adriatic Sea for Croatian and Italian bottom trawl fisheries fleet.

Concerning small pelagic fish species, particularly sardine and anchovy, determination of spawning grounds as well as nursery area is necessary; hence those studies should be conducted.

CYPRUS/CHYPRE

Description of the fisheries

The Cyprus capture fisheries consist of the small-scale inshore fishery (artisanal fishery), the trawl fishery and the polyvalent fishery.

The small scale inshore fishery fleet consists of small wooden and or fiber glass vessels with length ranging between 4 to 12 m (OAL), and an average length of 8.2 m. It operates within the territorial waters of Cyprus (Geographical Sub Area 25-Cyprus). Fishing gears used are mainly passive gears (bottom set nets and bottom longlines), targeting demersal species.

The polyvalent fishery fleet consists of 23 licensed vessels with length ranging between 12 – 26m (OAL), and an average length of 16 m. The fleet operates with passive polyvalent gears, both in the territorial waters of Cyprus GSA 25 and international waters of the Eastern Mediterranean, mainly in GSA 26-South Levant. Polyvalent vessels target highly migratory species, such as bluefin tuna (*Thunnus thynnus)*, swordfish (*Xiphias gladius*) and albacore (*Thunnus alalunga*) with surface longlines. Demersal species are also targeted in a lesser extent.

The bottom trawl fishery consists of vessels with length ranging between 21,4 to 26,8m (OAL) and are categorized into trawlers fishing in Cyprus waters (GSA 25) and trawlers fishing in International waters (Central and Eastern Mediterranean) (GSA 14, GSA 15 GSA 21)...

Thus the fishing grounds where the Cyprus fleet operates are distinguished as “Cyprus waters” and “International waters”. For the purpose of this report the term “Cyprus Waters” is used to describe the marine area under the effective control of the Government of Cyprus. It is known that since 1974, the most important fishing grounds of Cyprus are not accessible to the Government of the Republic of Cyprus. From the 846 sq. nautical miles of continental shelf and the total coastline of 773 km, only about 60 percent and 45 percent respectively are effectively controlled by the Government of Cyprus.

Table 1 presents information on fishing effort (number of licensed vessels, working days and total KW and GT) per active fleet category for the year 2012.

Table 1: Cyprus Fishery 2012

YEAR 2012	Production Metric tonnes	Effort (Working Days)	Number of Vessels	Fleet Total KW
Artisanal Fishery	583	49 000	461	21 589
Bottom Trawl Fishery Cyprus Waters	73	389	2	630
Bottom Trawl Fishery International waters	40	198	4	1 412
Polyvalent Fishery	366	620	21	3 253

Status of stocks of priority species

During the intersessional period Cyprus continued with the monitoring of demersal and large pelagic species in GSA 25, as part of the Cyprus National Fisheries Data Collection Programme, performed under the framework of the Community Data Collection Framework (Regulations (EC) 199/2008 and (EC) 665/2008, Decision 2008/949/EC).

The GFCM demersal priority species for which biological sampling was performed (for collecting length, age, maturity and sex data) are: *Boops boops*, *Mullus barbatus*, *Mullus surmuletus*, *Pagellus erythrinus*. Sampling was also conducted for *Spicara smaris*, which is of great national commercial importance. Furthermore, systematic length sampling was performed for an additional number of species: *Sparisoma cretense*, *Siganus rivulatus*, *Siganus luridus*, *Merluccius merluccius*, *Pagrus pagrus*, *Diplodus sargus*, *Diplodus vulgaris* and *Spicara maena*.

Biological sampling was also conducted for the ICCAT and GFCM priority species *Thunnus alalunga*, *Thunnus thynnus* and *Xiphias gladius*. Data have been submitted to ICCAT, contributing to the assessment of the status of the stocks.

During the 2010 SCSA Working Group on Demersal Species the status of the five demersal stocks for which biological sampling is performed was evaluated, using LCA – pseudocohort and Y/R analysis; the findings are considered preliminary.

Status of the statistics and information system

The authority responsible for the collection and management of fishery statistics in Cyprus is the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment.

The data collected by the fishery statistical system are used to fulfil the following objectives:

a) To serve as a guide for management purposes, i.e. to direct the DFMR to decide on the introduction of measures and regulations for the fishery
b) To provide statistical information to other bodies: The data are transmitted to the International Organizations and Agencies, where Cyprus has the legal obligation to send, i.e. FAO, GFCM, ICCAT and the European Union.
c) To be analysed for scientific purposes: Along with length distributions collected by sampling, the data are used to evaluate the stocks of the five most important commercial demersal fish species.

The Cyprus National Database for the collection and storage of data in the fisheries sector is comprised of the following databases: i) the Data Collection Network System (Data Transmission), ii) the Central Database and iii) the Fishing Vessel Fleet Register (FVR). The database facilitates the storage of data and its transmission to the relevant International bodies.

The system comprises a series of sub-databases which include the following data: Fishing capacity, Fishing effort, Catches (Landings and Discards), Catch per Unit Effort data series, Biological Measurements, Economic data on the fishing fleet and processing industry. Updates of the National Database are made whenever necessary, for incorporating new requirements.

All the data collected by the national database are dealt with confidence. Data access is limited to authorised personnel.

Status of research in progress

Within the framework of the National Fisheries Data Collection Programme, which is implemented since 2005, Cyprus performs annually biological sampling for the evaluation of length and age composition of landings, and the estimation of biological parameters (growth, maturity) for a number

of species. Discards sampling is also performed annually for the evaluation of the discard rates from the bottom otter trawl.

Furthermore, the National Programme includes the implementation of the International Bottom Trawl Survey in the Mediterranean (MEDITS) around Cyprus waters (GSA 25). The aim of the survey is to collect biological data from the Cyprus demersal species and creating time series of abundance and biomass indices and length frequency distributions. The trends of these data will provide information on the status of the Cyprus fishery resources, which may contribute to their management.

The DFMR participates in many EU Oceanographic research projects, most of them aiming to develop the operational Oceanography in the Mediterranean Sea. Finally, research in Aquaculture is being done in the Department's experimental stations. The research projects of Aquaculture include reproduction, development of brood stock populations and good quality and quantity of eggs and larvae of species cultured.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

The DFMR carries out socio-economic surveys to assess the economic situation of the fisheries sector in Cyprus. The sources for collecting the socio-economic data are the Inshore Fishery Production Reports, Logbooks, the Fishing Licenses and the Sales Notes from the fishmongers for verifying the quantities of production and the value of production of the Inshore Fishery. Moreover, an important tool used for the economic analysis is the face-to-face interviews. Some of the target variables are income, gross value of landings, production cost, financial position of fishermen, investments, live/weight prices per species and number of persons employed.

Marine environmental studies in progress

Marine ecological research is undertaken through various national and EU-funded projects and includes:

- Research on marine ecology with a particular emphasis on marine biodiversity.
- Studies on the effects on the marine ecosystem from various anthropogenic activities, such as aquaculture, desalination, breakwaters, sewage etc.
- Monitoring studies on the appearance and expansion of invasive alien species in the marine environment of Cyprus.
- Monitoring of eutrophication events by nuisance macroalgae.
- Protection and conservation programs for endangered aquatic species and their habitats, e.g., program for the conservation of marine turtles (*Chelonia mydas* & *Caretta caretta*), monk seal (*Monachus monachus*), *Posidonia* seagrass meadows (*Posidonia oceanica*) etc.
- Studies in the framework of the establishment of marine protected areas, including the development of artificial reefs.
- Monitoring of marine ecological and environmental parameters, as well as estimation of pollutants in marine organisms.
- Assessment of the Ecological Quality Status of coastal waters, under the Water Framework Directive (2000/60/EC).
- Study of the ecology and monitoring of the environmental parameters of the Larnaca Salt Lake complex and Akrotiri wetlands.
- Implementation of the Habitats Directive (92/43/EEC) as regards to coastal waters.
- Implementation of the Marine Framework Strategy Directive (2008/56/EC).

Involvements in activities of FAO Regional Projects

The Department of Fisheries and Marine Research participates in the EastMed regional project and activities.

Management measures

The National and Community legislation provide for a number of management measures for the regulation of the Cyprus fisheries, including:

- Restrictive access to fisheries (limited number of licenses for each fleet segment)
- Effort control: Restrictions on the use of fishing gears (quantities, soaking time, depth and distance off shore)
- Establishment of Fishing Protected Areas (Implementation of (EC) Regulation 1967/2006)
- Regulation of fishing capacity (scrapping, assignment for other uses than fishing, engine restrictions, ceiling of the fleet vessel register)
- Minimum sizes of marine organisms (restriction of catching, retain on board, transship, landing, transfer, store, sell and market)
- Technical conservation measures: minimum mesh sizes
- Seasonal and area closures

Moreover, the DFMR formulated and implements a Fisheries Management Plan for the Cyprus Fleet targeting demersal and mesopelagic stocks in the coastal zone of the Republic of Cyprus. The Plan includes measures which are aimed at reducing the fishing effort for all categories of professional vessels that are active in the territorial waters, under the exclusive control of the Republic of Cyprus and to adjust the fishing fleet to the availability of such stocks. The main measures, which have been programmed, include the permanent withdrawal of vessels, the use of more selective fishing methods, the reduction in the number of fishing licenses, the reduction in the permitted fishing tools, the creation of fishing protected areas and stricter control measures.

During the intersessional period the ICCAT recommendations on the management of Mediterranean swordfish, the multiannual recovery plan for bluefin tuna and the conservation of thresher sharks, endorsed by GFCM, were implemented.

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*
There is no exploitation of red coral by the Cyprus Fleet.

With regard to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area*
No information on by-catch of cetaceans was reported or recorded by the Department of Fisheries during 2012 within GSA 25.

With regard to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*
Data based on the recommendation are collected by the Department of Fisheries and Marine Research and the recommendations have been included in the fishing license rules.

Proposal for future research programs

At this point Cyprus has no research suggestions for consideration by SAC.

EGYPT/ÉGYPTE

Description of the fishery

The Egyptian Mediterranean coast (GSA 26) extends from the Libyan boarder in the west, till the Palestinian boarder in the east, covering a distant of 1100 km long that produces an annual average of more than 70 thousand ton of valuable marine species. The fishing grounds along the Egyptian Mediterranean coast are divided into four regions; Western region (from Alexandria to El-Salloum), Demietta region, Nile Delta region and Eastern region (Port Said and El- Arish). To the west of Alexandria, some 540 Km including El-Salloum Bay, the fish production is very low because this area is mostly rocky and the fishery depends on small-scale fishermen with small boats as well as the continental shelf is very narrow. More than 70% of fish production comes from the area from Alexandria to Port Said where the bottom is suitable for trawling and the continental shelf is the widest.

Fleet

The fleet composed of 3082 motorized vessels and 1444 unmotorized boats.

Fishing method		Number	Length (m)	GT	HP
Gill & Trammel nets	Average	502	10.3	11.2	48.3
	Range		4-25m	.8-140	6-140
Hooks & line	Average	1247	12.3	17.7	82.9
	Range		3-20.9	1.6-74	6-200
Purse Seine	Average	242	16.3	31.0	228.3
	Range		9.5-27	7.6-103	75-425
Trawl	Average	1091	19.2	60.0	433.3
	Range		5.9-31	7.7-343	75-1150

Total landings by main targeted species

According to the General Authority for Fish Resources Development (GAFRD, 2011), about 77799 MT were landed at different fishing ports from the Egyptian Mediterranean coast.

Species / group	Scientific name	Catch (MT)	%
Sardinellas nei	*Sardinella spp.*	7878	10.13
Shrimp	*Penaeus & Metapenaeus spp*	10799	13.88
Gray mullet	*Mugil spp.& Liza spp*	4191	5.39
Crabs	*Portunus spp*	3814	4.90
Bivalves	*Ex Mollusca*	3615	4.65
Anchovy & small sardine	*Engraulis encrasicolus*	2003	2.57
Red mullet	*Mullus spp.*	4124	5.30
Red porgy	*Pagrus spp.& Pagellus spp.*	3990	5.13
Bogue	Boops boops	4156	5.34
Cuttlefish	*Sepia officinalis*	2480	3.19
Sharks, Rays, etc	*Chondrichthyes spp.*	3333	4.28

Species / group	Scientific name	Catch (MT)	%
Sea breams	*Diplodus spp*	1417	1.82
Little tuna	*Euthynnus alletteratus*	951	1.22
King fish	*Scomberomorus commerson*	939	1.21
Lizardfish	*Saurida undosquamis*	2371	3.05
Hairtail	*Trichiurus lepturus*	2087	2.68
Gilthead Sea bream	*Sparus aurata*	1198	1.54
Sea bass	*Dicentrarchus labrax*	969	1.25
Gurnard	*Eutrigla gurnardus*	1648	2.12
Meagre	*Argyrosomus regius*	687	0.88
Grouper	*Epinephelus spp.*	878	1.13
Spinefeet	*Siganus spp.*	1005	1.29
Horse makerel	*Trachurus spp.*	971	1.25
Barracudas	*Sphyraena spp.*	469	0.60
White Seabream	*Sparus sp.*	949	1.22
Sole	*Solea spp.*	1145	1.47
Black spotted bass	*Dicentrarchus punctatus*	469	0.60
Bluefish	*Pomatomus saltatrix*	566	0.73
Mantis shrimp	*Oratosquilla massavensis*	260	0.33
Others		8437	10.84

Status of stocks of priority species

Assessment of the round sardinella *Sardinella aurata*, in the East Mediterranean sea (North Sinai) using length frequency and yield per recruit analysis indicated that the stock is in balanced position and the current exploitation rate is less than the predicted (EMax) and (E0.1) (Abdel Hakim *et al,* 2012).

The catch per unit of effort of Albacore Thunnus *alalunga* was estimated during an experimental fishing trip conducted on board of commercial Egyptian long liner. The CPUE for albacore ranged from 7 to 22 fish / 1000 hooks for the different fishing trips, with an average CPUE of 12 fish/1000 hooks (SE±4.4) (Hosny and El Haweet, 2012).

A preliminary assessment of the Lizard fish *Saurida undosquamis* as a Lesspsian migrant species of commercial importance in Egypt using LCA and yield per recruit showed that the current fishing level of the lizard fish (Fc = 0.588) is higher than the biological reference points (F0.1 = 0.29 and Fmax = 0.44) indicating that, the lizard fish *Saurida undosquamis* stock in GSA 26 is overexploited (El Haweet *et al,* 2013).

Status of the statistics and information system

Egypt has established an efficient data collection programme through progress made in the implementation of a catch/effort monitoring system, within the framework of the FAO Regional Project EastMed. In 2011, Egypt started working on a pilot statistical monitoring programme for the Egyptian Mediterranean fisheries. Significant efforts were deployed to enable the Samac referential data to comply as much as possible with the GFCM standards and data compliance requirements. In 2012, the EastMed project set up a decentralized computer system (Samac.Net) for the regular handling of catch and effort samples and the production of estimates for the pilot area. Data operators

at GAFRD and at the designated outposts were trained on its use. At the end of each month, all outposts submit to the Samac administrator their data for integration into a single database and for the production of estimates at national level. The set of Samac.Net workbooks provides a source of monthly statistical reports involving system referential data, catch/effort estimates, tables and graphs and statistical diagnostics on the accuracy of sampling operations. As a next step, the country will use Samac.web. This should provide four different levels of accessibility, namely: login as Samac administrator, login as data supervisor and/or operator, login as privileged user, public user – no login. A vessel information spreadsheet according to GFCM requirements has been designed. All Mediterranean harbors are covered and an ongoing fleet register updated annually.

Status of research in progress

The survey on biological sampling which has been started in 2011 with the Support of the EastMed project (GFCM) is continued and achieved progress in the sampling of biological data for the most commercial pelagic and demersal species, in this context two workshops were conducted in Alexandria and Rashid, during 24-26 February 2013. The workshops aimed to introduce the selectivity problems for all the used gears in addition to introducing a guide for shrimp species identification.

The National institute of Oceanography and Fisheries has conducted three marine surveys during the period from April 2012 - February 2013 to study the geographical distribution, relative abundance and biological parameters of the pelagic and demersal species.

Status of the social sciences studies achieved during the intercessional period (economy, relevant legislation, sociology, etc.)

A catch assessment survey and a dedicated socio-economic sampling programme were developed, with the support of the EastMed project. A sampling plan was implemented in order to achieve the estimation of all the socio-economic variables for fleet segments according to the GFCM Task I fleet segmentation and to provide a preliminary assessment of socio economic situation of the Egyptian fisheries fleet through an interview based survey. Some socio-economic indicators was calculated and compared with values of other similar sectors (e.g. agriculture). The evaluation of these indicators will also be used to give management advice to the Ministry in order to improve the economic conditions of people involved in fisheries.

Mohamed Zyton (2012) studied the occupational safety and health in the Egyptian fisheries and he concluded that the Egyptian fishing industry involve many hazardous work conditions and practices that result in high morbidity and mortality rates, and high injury rates. The study recommends further research on suitable measures for the management of this problem.

Marine environmental studies

FAO EastMed Project of pilot study on Implementation of the 40 mm square mesh size GFCM Resolution to the Egyptian trawl fleet will be developed. The study will focus on selectivity rather than on efficiency.

Management measures

Specific management regulations are limited to freeze on the issue of additional fishing boat s licenses and a closed season for all fishing activities from 1 May to 30 June each year at the Mediterranean Sea.

Research suggestions for consideration by SAC

- Mapping of the most important spawning and nursery grounds for the establishment of marine protected areas to be used as an effective fisheries management tool is needed.
- The whole life cycle of the different species should be studied to describe their population dynamics and consequently applying the fishery management models.
- There is a strong need for the appropriate measures of stock biomass and stock abundance, of the commercial species which would provide real stock information upon which management strategy could be developed.

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Description des pêcheries

Les pêcheries françaises de Méditerranée sont réparties entre deux GSA: la GSA 07 qui regroupe les zones de pêche du golfe du Lion et celles des côtes continentales françaises à l'ouest du golfe de Gênes et la GSA 08 couvrant les zones de pêche de Corse. A ces pêches maritimes, littorales, et du large, s'ajoutent d'une part une activité de pêche lagunaire intéressant plus d'une vingtaine de lagunes dont la majeure partie borde le littoral du golfe du Lion et d'autre part, une activité hauturière couvrant l'ensemble de la Méditerranée, la pêche du thon rouge à la senne tournante. À l'exception de cette dernière, le golfe du Lion, grâce à son large plateau continental (15 000 km²) et l'importance de ses lagunes (49 734 ha) sur le littoral, regroupe la majeure partie de l'activité halieutique française en Méditerranée et de sa production. Les différents métiers peuvent se définir en 3 grands groupes: le chalutage, la pêche des poissons pélagiques à la senne tournante, et un ensemble de métiers divers pratiqués d'une façon polyvalente et à petite échelle, principalement à la côte et dans les lagunes. Ces flottilles et leur production se répartissent de la manière suivante :

GSA 07 – Golfe du Lion et côtes provençales[(1)]

Flottille	Nombre de navires	Puissance totale (kW)	Jauge totale (UMS)	Nombre de marins
Senneurs à thons rouge	18	12 604	4 357	196
Senneurs (hors thons rouges)	34	5 857	499	128
Chalutiers de fond	64	19 853	5 543	248
Chalutiers pélagiques et mixtes	25	7 900	3 412	121
Ganguis	25	1 436	139	40
Dragueurs	21	1 843	93	26
Fileyeurs exclusifs	274	19 302	947	359
Fileyeurs polyvalents	196	18 653	794	290
Telliniers	30	1 483	46	34
Capéchades	146	4 669	148	163
Métiers de l'hameçon	34	2 913	133	51
Plongeurs mer	35	2 272	67	52
Plongeurs étang	47	2 666	57	54
Divers petits métiers mer	16	1 212	35	46
Divers petits métiers étang	88	4 698	117	101
Divers petits métiers étang-mer	67	4 268	116	94
Total	**1 120**	**111 629**	**16 503**	**2 003**

[(1)] Source SIH/IFREMER : Synthèse des flottilles de pêche 2010, Façade Méditerranée (hors Corse)

GSA 08 (Corse)

L'activité de pêche en Corse est répartie sur l'ensemble de son littoral (1043 km) avec 50 % des unités de pêche regroupés dans le golfe d'Ajaccio. La flottille est composée de 205 unités artisanales réparties entre 184 petits métiers côtiers (principalement des navires de 6 à 10 mètres), 4 fileyeurs palangriers, 9 chalutiers de fond, et 8 armements de plongeurs-corailleurs. Les fileyeurs ciblent surtout la langouste (mars à septembre), mais aussi rouget barbet, daurades et homard. Les quelques chalutiers pêchent sur le petit plateau continental et en bordure du talus de la côte Est de l'île, et ciblent rouget barbet, St-Pierre et langoustines.

État des stocks des principales espèces

Évaluation du stock partagé franco-espagnol de merlu (Merluccius merluccius) du golfe du Lion (GSA 07)

Les principales conclusions de l'évaluation du merlu sont une surexploitation de croissance avec risque de surexploitation du recrutement. D'exceptionnels forts recrutements sont observés périodiquement (1998, 2001-2002 et 2007) et semblent participer au maintien de l'exploitation avec un très faible niveau d'abondance. Depuis 2007, le recrutement a atteint le plus faible niveau de la série historique 1998-2011. Une analyse prospective a montré pour le point de référence ($F_{0.1}$) une valeur de 0.15, avec un F actuel de 1.65.

Évaluation du stock partagé franco-espagnol de rouget (Mullus barbatus) du golfe du Lion (GSA 07)

Le stock du rouget de vase est surexploité (forte mortalité par pêche et abondance intermédiaire) avec périodiquement de plus forts recrutements (2006 et 2010). Le F actuel (1.26) doit être réduit de 60 % pour atteindre le point de référence F0.1 (0.50). Il est important de noter que certaines mesures de gestions ont été prises en 2011 en ce qui concerne les chalutiers. Les mesures de gestion ont été : une réduction du nombre de bateaux par un plan de sortie de flotte (mesure prolongée en 2012), une fermeture temporaire d'un mois par an pour les chalutiers en 2011 et 2012. Ces mesures devraient contribuer favorablement à la diminution de mortalité par pêche du rouget de vase, mais également du merlu.

Évaluation du stock partagé franco-espagnol d'anchois et de sardine du golfe du Lion (GSA 07)

Les biomasses d'anchois *(Engraulis encrasicolus)* et sardine *(Sardina pilchardus)* sont évaluées à partir des campagnes acoustiques PELMED. Sardine : (1) baisse de la biomasse totale entre 2009 et 2011 : 58 300 t, 41100 t et 26 800 t respectivement, augmentation en 2012 avec 80 500 t (2) fort recrutement depuis 2008 (3) biomasse de juvéniles en augmentation (4) chute de la production : 3620 t en 2009 et 700 t de 2010 à 2012. Anchois : (1) biomasse totale plus stable : 31 700 t, 25 000 t, 36 300 t et 39 000 t de 2009 à 2012, (2) production en baisse : 2500 t, 2300 t, 1 600 t et 1 500 t de 2009 à 2012. Les structures démographiques de ces 2 espèces indiquent un rajeunissement des populations depuis 2008. Indices de condition, taux de croissance et taille de première maturité sexuelle diminuent sensiblement ces 4 dernières années. Recommandation de réduire l'effort de pêche sur ces deux espèces tel que déjà appliqué par la pêcherie française depuis 2010 et de respecter la réglementation européenne sur la taille minimale de prise, > 9 cm pour l'anchois et 11 cm pour la sardine (UE 1976/2006) pour préserver les âges 1+. Une forte abondance de sprat est observée.

L'écosystème du golfe de Lion montre des signes de déséquilibre depuis 2008, avec des réductions importantes de biomasse et des changements dans les structures démographiques des stocks de sardines et d'anchois, couplés à une abondance exceptionnelle de sprats (non ciblés commercialement). La pêcherie sur les petits pélagiques y est de ce fait multispécifique et l'effort de pêche réalisé sur la sardine ne peut pas être dissocié de celui appliqué à l'anchois. La plupart des décisions de gestion doivent donc être prises en considérant les deux espèces.

Information sur les pêcheries thon rouge

Les captures françaises de thon rouge en Méditerranée s'élèvent en 2011 à 792 t, 1528 t en 2010, 3087 t en 2009, 2922 t en 2008 et 10157 t en 2007. Cette très forte diminution depuis 2007 résulte de plusieurs facteurs liés au plan de reconstitution du thon rouge (CICTA): forte baisse du TAC depuis 2010, remboursement du dépassement de quota 2007 (de l'ordre de 1500 t en 2011 et 2012), restriction de la saison de pêche à la senne et fermeture avancée (15 juin), renforcement des contrôles, mise en place de quotas individuels pour les senneurs. En Méditerranée, le thon rouge est pêché

principalement par des senneurs depuis les années 1970. Leurs captures sont en partie déterminées par des facteurs environnementaux influençant la disponibilité du thon vis-à-vis de l'engin de pêche. La pêche aux Baléares et en Libye (mi-mai à mi-juin) se focalise sur des prises entre 180 et 250cm (140 à 250kg). Le développement du commerce avec le Japon mi 1990, puis de l'embouche, est à l'origine de cette pêche ciblée sur les gros. Ces prises sont surtout destinées aux cages d'engraissement et ne sont pas débarquées. Les autres saisons de pêche (mars-avril, août-octobre) étaient auparavant axées sur des poissons de 10-30kg (âge 2 et 3), surtout sur les côtes franco-catalanes, et secondairement au large des côtes d'Afrique du Nord, jusqu'en 2006 (et en partie 2007). Suite au plan de reconstitution, les senneurs ne pêchent plus à ces périodes. La pêcherie artisanale (canne ou palangre) a un quota de 100 à 200 t selon les années (en 2011, 113 t ont été déclarées) qu'elle pêche essentiellement de mai à octobre le long des côtes françaises méditerranéennes.

État des statistiques et système d'information

Le Système d'Information Halieutique (SIH) de l'Ifremer constitue le réseau d'observation des ressources halieutiques et des usages associés. 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. Le SIH s'appuie sur l'échantillonnage des captures commerciales, les campagnes à la mer, les statistiques de pêche et les enquêtes économiques. Ces données sont 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). Elle repose sur différents programmes détaillés ci-dessous.

Programme d'échantillonnage biologique
Les tailles des principales espèces débarquées dans le golfe du Lion (GSA 7) par les principaux métiers (chaluts et filets à divers démersaux, chaluts à petits pélagiques) sont échantillonnées. Depuis 2010, ces échantillonnages couvrent les navires <12 m (240 sorties/an). Les métiers identifiés ciblent préférentiellement daurade, loup, sole, merlu, poulpe de roche et anguille. Des otolithes sont prélevés sur daurade, merlu, rouget de vase, anchois et sardine mais leur lecture exclu ceux du merlu liés à une trop forte incertitude. Maturité et condition sont suivies pour anchois et sardine. Depuis 2011, des échantillonnages en taille sont réalisés en Corse (GSA 8) sur les espèces débarquées par les principaux métiers : trémails à langouste (*Palinurus elephas*), chaluts à poissons démersaux ciblant langoustine et rouget barbet, palangres à espadon.

Programme ObsDeb d'enquêtes d'activités et des débarquements des navires de moins de 12 mètres
Des enquêtes mensuelles sont conduites pour estimer effort de pêche et production des navires < 12 m en mer et lagune, de la frontière italienne à la frontière espagnole (GSA 7). En Corse (GSA 8), l'activité des navires est recensée par enquête chaque année.

Programme ObsMer d'observation des captures en mer
Le programme national prévoit pour la façade méditerranéenne (GSA 7), des observations sur les captures des chalutiers (fond et pélagique). Débarquements d'espèces commercialisées, prises accessoires, rejets, et caractéristiques techniques de chaque trait sont collectés. En 2011, 44 marées de chalutier ont été échantillonnées. En Corse (GSA 8) en 2011, 144 marées étaient prévues en mer, et 124 ont été réalisées, dont 113 sur les fileyeurs, 9 sur les palangriers et 2 sur les chalutiers.

Programme ObsMam d'observation des captures accidentelles de mammifères marins
Conformément aux dispositions du règlement (CE) n°812/2004 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 inclus dans le programme OBSMER.

Programme d'observations aériennes du thon rouge dans le golfe du Lion
Depuis 2009, l'Ifremer conduit des prospections aériennes du thon rouge dans le golfe du Lion (même protocole qu'en 2000-2003) : 25 survols en 2009, 17 en 2010, 13 en 2011 et 6 en 2012 entre juin et octobre. Les positions GPS des bancs repérés en surface ainsi que les tailles estimées des bancs et des individus sont relevées. Les densités observées sur la période 2009-2011 sont environ deux fois supérieures à celles observées en 2000-2003, probablement en réponse au plan de reconstitution du thon rouge (mise en place d'une taille minimale de 30 kg depuis 2007). Ces résultats sont cohérents avec les observations aériennes de 2009 des scientifiques espagnols en Méditerranée Nord Occidentale. Ces campagnes confirment l'intérêt des survols pour suivre l'abondance des juvéniles sur ces aires de nutrition, mais pour améliorer le diagnostic scientifique, des opérations similaires devront être conduites sur plusieurs années et étendues en Méditerranée centrale et orientale.

Programme MEDITS-France (GSA 07 et 08)
La campagne française de chalutage annuelle d'évaluation des ressources démersales (MEDITS) se déroule sur la façade Est Corse (66 traits) et dans le golfe du Lion (24 traits), en fin de printemps. Elle a lieu à la même période en France, Espagne, Italie, Slovénie, Croatie, Monténégro, Albanie, Malte, Grèce et Chypre. Le programme Medits, lancé en 1993 a permis de standardiser les modalités pratiques d'échantillonnage (période, échantillonnage biologique, engin de capture…) et ainsi de constituer une base de connaissances commune sur les ressources démersales exploitées. Les observations biologiques sont réalisées selon le protocole décrit dans la dernière version de "Instruction manual MEDITS" (version 6, mars 2012 sur le site du SIH). L'ensemble des espèces collectées dont le benthos sont triées, pesées et dénombrées. Pour 84 espèces, des mensurations sont réalisées en plus et sur 41 de ces espèces (32 sélaciens, 3 poissons osseux, 4 crustacés, 2 céphalopodes) sont collectés tous les paramètres individuels (pesée individuelle, sexe, maturité, taille, otolithes pour les deux rougets et le merlu).

Programme PELMED (GSA 07)
L'évaluation des stocks de petits pélagiques est menée une fois par an en juillet à l'aide de prospections acoustiques, par la méthode d'écho intégration (à l'aide du logiciel Movies+) et de chalutages d'identification associés. Les campagnes annuelles PELMED couvrent l'ensemble du golfe du Lion (GSA07) et appliquent un protocole strictement identique depuis 1993. Toutes les principales espèces de petits pélagiques sont évaluées mais seules les biomasses de l'anchois et de la sardine font l'objet d'une fiche d'évaluation, l'évolution des biomasses des autres espèces étant montrée à titre de tendance comme pouvant servir à l'explication du niveau des stocks des deux espèces principales. Les résultats de ces campagnes sont discutés aux sessions des groupes de travail sur les petits pélagiques du SCSA. Depuis la mise en place de l'harmonisation des campagnes acoustiques en Méditerranée à travers le protocole MEDIAS, les campagnes PELMED rejoignent les priorités internationales pour les campagnes financées par l'UE et couvrent le nord de la mer Catalane depuis 2008.

État des recherches en cours

Projet ANR-AMPED (Aires Marines Protégées) (2009-2013)
Projet en collaboration Ird et Ifremer avec pour objectif d'estimer les bénéfices potentiels d'aires marines protégées sur des espèces qui se déplacent (merlu, petits pélagiques, thon rouge) dans le golfe du Lion. Les études portent sur (1) la répartition spatio-temporelle des stades de maturité du merlu

notamment les reproducteurs, (2) une modélisation des réseaux trophiques (modèle Ecopath et Osmose) (3) sur la dynamique spatio-temporelle des espèces de poissons exploités (Thèse).

Projet UE HACOUSMED (2002-2012)
Harmonisation des données ACOUstiques en MEDiterranée (2002-2006) et optimisation des méthodes acoustiques utilisées lors des campagnes d'évaluation des stocks d'anchois et de sardine (2010-2012). Partenaires : HCMR, IEO, CNR – ISMAR, CNR – IAMC, IFREMER. L'optimisation porte sur (1) géostatistiques des séries pour définir les inter-radiales les plus appropriées (2) mesure de TS *in situ* pour mieux caractériser anchois et sardine (3) comparaison des chalutages de jour et nuit (4) standardisation du format des données (5) mise en place d'une base de données commune.
Le rapport final a été livré en mars 2012

Projet EcoPelGol (Déc 2012-Nov. 2015)
« Etude de la dynamique de l'Ecosystème Pélagique du Golfe du Lion »
Ce projet financé par France Filière Pêche, s'attache à comprendre les 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. Il a pour but de tester l'hypothèse de contrôle bottom-up de ces populations de petits pélagiques via l'étude de la structure en taille et en âge de la population ainsi que de sa condition en lien avec l'environnement et le plancton (thèse + post-doc) ainsi que de réaliser une première évaluation de la pression de prédation exercée par les thons et les mammifères marins sur ces populations. Outre, l'IFREMER-EME, les partenaires sont l'IRD-EME et le MIO (Marseille).

Recherche sur le thon rouge
L'Ifremer mène des recherches sur le thon rouge depuis 20ans : (1) collecte et analyse de données historiques de pêcheries (2) étude de la dynamique spatio-temporelle (3) impact de la variabilité océanique sur la dynamique spatiale et de population, (4) mise en place de suivi aérien pour en inférer un indice d'abondance, (5) marquage électronique par marque archive pop-up, (6) modélisation de la dynamique de population (7) modélisation en appui à l'évaluation de stock. Depuis 2009, thèse sur le développement d'un modèle de biomasse dynamique bayésien et sur la steepness. Depuis 2006, les travaux de marquage électronique et conventionnel tendent à montrer un fort taux de résidence en Méditerranée des jeunes adultes et met en évidence une zone d'hivernage en Méditerranée Nord Occidentale inconnue jusqu'à lors. En 2011, démarrage d'une étude sur l'écologie trophique dans le golfe du lion (Mermex) dont l'un des objectifs est d'évaluer l'impact de la prédation du thon rouge sur les petits pélagiques. Participation en 2011 et 2012 à l'échantillonnage biologique et génétique du thon rouge (programme de recherche de la CICTA).

Projet national RP3E
Ce projet (fin en 2012) vise à estimer l'amélioration de la rentabilité d'entreprises de pêche par la réduction de leur consommation en carburant et à réduire l'impact sur le milieu : (1) développer un nouveau train de pêche ciblant le poisson pélagique (2) technique de pêche alternative au chalutage ciblant la langoustine. Des essais avec un chalut en Dyneema (fibre synthétique de très haute résistance et faible densité) à la place du Polyamide, ont mis en évidence une diminution de la consommation carburant de 10%. Des essais aux casiers pour la langoustine sont en cours.

Projet IPEP (Impact de la pêche sur les espèces protégées)
Acquisition de connaissances sur l'écologie, les mouvements migratoires et la dynamique spatiale des requins pélagiques de Méditerranée :
L'intensification de l'effort des importantes pêches pélagiques dans toute la Méditerranée au cours des 30 dernières années, a eu, sans nul doute, un impact considérable sur la population de requins pélagiques. En Méditerranée aussi les pratiques de pêche non durables risquent d'entrainer

l'effondrement de nombreuses populations de requins. Le manque actuel d'évaluations fiables de l'état des stocks de requins en Méditerranée crée un problème grave pour la CGPM (Commission Générale des pêches pour la Méditerranée).
Le but du programme est d'identifier les zones à risques et déterminer de mesures de gestion adéquates pour assurer la conservation du requin le requin peau bleue (*Prionace glauca*), espèce la plus commune en Méditerranée – zones devant être désignées comme prioritaires pour appliquer des mesures spécifiques de conservation (mise en place d'aires marines - régulations des activités de pêche – toute autre mesure justifiable au regard de l'écologie de l'espèce). La télémétrie satellite devrait permettre de répondre à ces questions de (1) clarifier les temps de résidence et les habitats critiques pour cette espèce, (2) connaitre les mouvements des requins sur de longues périodes (9 mois minimum), (3) identifier des facteurs qui engendrent ces migrations. Ces actions sont menées en partenariat avec le Seaquarium du Grau du Roi, la FFPF (Fédération Française des Pêcheurs en Mer) et l'association Stellaris qui apportent un soutien financier et logistique lors des opérations effectuées en mer.

Projet RECOPESCA
Ce projet pilote à 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.
Basé sur le volontariat de patrons pêcheur, ce projet a permis d'équiper 24 navires pratiquant différents métiers, souvent polyvalents, et situés sur l'ensemble de la côte continentale de Méditerranée française. Les données collectées par plusieurs capteurs (GPS, sondes d'immersion fixées sur les engins de pêche, sondes sur les roues hydrauliques) sont en cours d'analyse pour permettre de qualifier précisément l'effort de pêche dans ses différentes composantes, dont la quantification de l'exploitation par type d'habitats.

Mesures de gestion

Élaboration de Plans de Gestion en application du règlement européen (CE) 1967/2006
L'État français a poursuivi en 2012, l'élaboration des plans de gestion dans le cadre de l'article 19 du règlement européen (CE) 1967/2006 pour l'exploitation durable des ressources halieutiques en Méditerranée. Les métiers concernés sont les chaluts, les dragues, les sennes tournantes coulissantes et les sennes de plage.
L'Ifremer a produit plusieurs documents et avis scientifiques, et participé aux réunions de travail, afin de fournir à l'ensemble des acteurs une information scientifique sur la situation actuelle de ces activités de pêche et sur les évolutions prévisibles de ces activités selon différents scénarios.
Ces plans de gestion reprennent une partie des dispositifs de régulation et de gestion qui fonctionnaient à une échelle géographique inférieure à la façade de Méditerranée française. L'articulation ou l'homogénéisation de ces règlements a d'abord permis d'ajuster les différents paramètres à l'échelle nationale, puis d'adopter ces règlements à un niveau national, ce qui augmente et renforce la régulation des pêches.
De nouveaux objectifs de gestion ont été adoptés dans ces plans de gestion, qui transposent des recommandations scientifiques nationales ou issues de la CGPM, et en accord avec les conventions internationales. Il s'agit principalement de :

- Le plan de gestion chalut « contribue à l'atteinte du rendement maximum durable pour le merlu. Le point de référence retenu par les scientifiques est F0.1, comme étant le niveau de mortalité par pêche permettant d'atteindre le rendement maximal durable (RMD) [FRMD = F0.1]. L'objectif est d'adopter pour cette flottille, au plus tard en septembre 2015, une configuration qui permette de contribuer à l'atteinte à partir de 2015 et au plus tard en 2020 de F0.1 = 0,20 (résultat de l'analyse de données 2010, dernière estimation de la CGPM) ou la nouvelle valeur de référence équivalente, en cas d'une modification du diagramme d'exploitation » ;

- Le plan de gestion Chalut et le plan de gestion Senne tournante coulissante « contribuent au respect des points de référence limite pour les espèces de petits pélagiques anchois et sardine. Le point de référence retenu par les scientifiques est le taux d'exploitation sur les plus vieux individus, catégorie dont le seuil inférieur est défini par la longueur moyenne des poissons d'âge 1 an. L'objectif est que ce taux d'exploitation, cumulant les captures de tous les métiers ciblant ces espèces, ne dépasse pas la valeur de 40 % pour chacune de ces deux espèces ».

De nouveaux outils de régulation de l'effort de pêche ont été introduits pour permettre d'atteindre les objectifs adoptés, et principalement :

- L'encadrement par Autorisation Européenne de Pêche, avec *numerus clausus*, nombre de jour, horaires ou lieu de pêche autorisés pour chaque activité ;
- L'instauration d'un régime d'effort de pêche pour le chalut, avec un plafond d'effort maximum en nombre de jour de pêche.

La phase d'élaboration des plans de gestion est achevée pour le plan de gestion relatif au chalut en Méditerranée, et est en cours d'achèvement pour tous les autres petits métiers. La transposition du plan de gestion au chalut en droit français a été effectuée le 28 février et publiée au Journal Officiel le 2 mars 2013.

GREECE/GRÈCE

Description of fisheries

Table 1. Provisional landing data for 2011 and final data for 2010
BFT data include both landings and transfers to fishfarms

	Common name	Scientific name	Landings '11 (tons)	Landings '10 (tons)
	Sole	*Solea vulgaris*	450	573
	Other		50	79
Flatfish			500	652
	Hake	*Merluccius merluccius*	3 680	4 602
	Other		8 320	10 396
Groundfish			12 000	14 998
	Horse mackerel	*Trachurus spp*	2 200	2 763
	Mackerel	*Scomber scombrus*	140	173
	Sardine	*Sardina pilchardus*	5 200	6 511
	Anchovy	*Engraulis encrasicolus*		12 042
	Other pelagics			9 275
Pelagics			24 600	30 764
	Bluefin tuna	*Thunnus thynnus*	172	224
	Albacore	*Thunnus alalunga*	165	150
	Other tuna		1 436	1 428
	Swordfish	*Xiphias gladius*	1 306	1 494
Tunas			3 079	3 296
Other fish			12 500	15 634
Total fish			52 679	65 344
	Lobster	*Palinurus elephas*	120	150
	Norway lobster	*Nephrops norvegicus*	320	398
	Shrimp	*Parapenaeus longirostris*	2 300	2 838
	Other crustaceans		180	229
Total crustaceans			2 920	3 615
	Mussel	*Mytilus galloprovincialis*	250	313
	Other shellfish		500	634
	Squid	*Loligo vulgaris*	500	615
	Cuttlefish	*Sepia officinalis*	1 100	1 394
	Octopus	*Octopus vulgaris*	1 200	1 488
	Other mollusks		1 200	1 482
Total mollusks			4 750	5 926
Grand total			**60 349**	**74 885**

The Greek marine fishery includes more than 96% of small scale inshore fishing vessels. A small percentage of the Greek fishing fleet comprises of vessels that operate trawling and purse seine fishing gear.

The following Table 2 shows the main fishing characteristics of the Greek fishing fleet according to the National Fleet Register (31/12/2012).

Table 2. Fishing Fleet Characteristics

LOA (m)	No of vessels	Capacity (GT)	Engine Power (KW)
0-9.99	15 080	26 579.48	344 298.84
10-14.99	983	10 572.51	101 929.17
15-23.99	412	16 998.49	110 041.32
24-49.99	221	29 746.69	95 260.95
TOTAL	**16 696**	83 897.17	651 530.28

Range of LOA	Min.: 2.56	Max: 48.95
Average LOA	7.44	

Status of stocks of priority species

The information given below and presented to the National Report of last year remain unchanged since the fishing pressure in these stocks has not changed significantly during the intersessional period.

Anchovy, *Engraulis encrasicolus* - GSA22 (Aegean Sea-NWpart)
In GSA 22 the Greek anchovy fishery is almost exclusively exploited by the purse seine fleet. Regarding the regulations enforced they concern a closed period from the mid December till the end of February and technical measures such as minimum distance from shore, gear and mesh size, vessel capacity, and power of engine. There is a minimum landing size at 9 cm. Discards values are less than 1%, reaching approximately 0.06% data for GSA 22. Data of the landings per vessel class indicate that small vessels (12-24 m) are mainly responsible for anchovy catches (>70% of sardine catches).
The assessment of the stock has been based on fishery independent surveys information as well as on Integrated Catch at Age (ICA) analysis model. Acoustic surveys estimations were used for Total Biomass estimates. ICA assessment method uses separable virtual population analysis (VPA) with weighted tuning indices. The application of ICA was based on commercial catch data (2000-2008) and as tuning indices were used the biomass estimates from acoustic surveys estimates and DEPM surveys estimates over the period 2003-2008 with a gap in 2007, as no surveys data were available for this year. The stock was found as fully exploited with no expected room for further expansion. The exploitation rate was found to produce moderate to high fishing mortality and the stock abundance was estimated as intermediate. No further surveys and assessments were carried out in 2009. No further surveys and assessments were carried out in 2009, while landings reduced of about 2000 tons in 2009.

Sardine, *Sardina pilchardus* in the Aegean sea - GSA22 (Aegean Sea-NW part)
In GSA 22 the Greek sardine fishery is almost exclusively exploited by the purse seine fleet. Regarding the regulations enforced they concern a closed period from the mid December till the end of February and technical measures such as minimum distance from shore, gear and mesh size, vessel capacity, and power of engine. There is a minimum landing size at 11 cm. Discards values are less than 1%, reaching approximately 0.3% data for GSA 22. Data of the landings per vessel class indicate that small vessels (12-24 m) are mainly responsible for sardine catches (>88% of sardine catches).
The assessment of the stock has been based on fishery independent surveys information as well as on Integrated Catch at Age (ICA) analysis model. Acoustic surveys estimations were used for Total

Biomass estimates. ICA assessment method uses separable virtual population analysis (VPA) with weighted tuning indices. The application of ICA was based on commercial catch data (2000-2008) and as tuning indices were used the biomass estimates from acoustic surveys estimates over the period 2003-2008 with a gap in 2007, as no acoustic survey data were available for this year. The exploitation rate was found to produce high fishing mortality and the stock abundance was estimated as intermediate. No further surveys and assessments were carried out in 2009 while landings remain stable since 2008. No further surveys and assessments were carried out in 2009, while landings remained stable since 2008.

Conclusions for both anchovy and sardine

The conclusions based on those assessments should be considered preliminary and cautionary because they are based on a short time series of data. Based on the assessment results the anchovy stock is considered to be harvested sustainably, operating below but close to an optimal yield level, with no however expected room for further expansion. On the other hand the stock of sardine was found to be exploited above but close to the empirical level for stock decline. Thus the management advice is not to increase the fishing effort. The sustainability for harvesting of both stocks has to be confirmed in following years, while the stocks should be monitored in an annual basis with direct assessment surveys.

Red mullet (*Mullus barbatus*) – GSAs 22&23

The species is mainly fished by bottom trawlers and is one of the most important target species of the gear. Minor catches are also reported from artisanal fleets using various gillnet types. Management regulations include seasonal (June 1 - September 30) and spatial closures of the bottom trawl fishery, as well as a minimum landing size. The most recent assessment has been based on production modelling using survey (MEDITS) and catch data up to 2009.

Assessment results demonstrated that the stocks are at a healthy state and their current (2009) exploitation rates are at safe levels. The stocks of the aforementioned species were over-fished till the late 90's but improvement has been observed thereafter. Given the relatively small size of the species and its depth preferences (more abundant over the continental shelf), it seems that the progressive implementation of increases in the trawl codend mesh-size and the prohibition of bottom trawling in depths < 50m had positively affected the state of their stocks.

Striped mullet (*Mullus surmuletus*) – GSAs 22&23

The species is fished by bottom trawlers and artisanal fleets. Management regulations include seasonal (June 1 - September 30) and spatial closures of the bottom trawl fishery, as well as a minimum landing size. The most recent assessment has been based on production modelling using survey (MEDITS) and catch data up to 2009.

Assessment results demonstrated that the stocks are at a healthy state and their current (2009) exploitation rates are at safe levels. The stocks of the aforementioned species were over-fished till the late 90's but improvement has been observed thereafter. Given the relatively small size of the species and its depth preferences (more abundant over the continental shelf), it seems that the progressive implementation of increases in the trawl codend mesh-size and the prohibition of bottom trawling in depths < 50m had positively affected the state of their stocks.

Hake *(Merluccius merluccius)* – GSAs 22&23

The species is fished by bottom trawlers and various artisanal fleets that use gillnets and longlines. Management regulations include seasonal (June 1 - September 30) and spatial closures of the bottom trawl fishery, as well as a minimum landing size. The most recent assessment has been based on production modelling using survey (MEDITS) and catch data up to 2009.

Assessment results have demonstrated that, in both GSAs, stock biomass shows a general decreasing trend in the last 4-5 years of the study. Both hake stocks undergo slight overfishing and their biomass

is just above the estimated safe levels. Although there are not any relevant data, it is reasonable to assume that the recent banning of bottom trawling in depths < 50m resulted in shifts of fishing effort at deeper waters producing a negative impact on species, such as hake, mainly inhibiting the slope region. A fishing effort reduction of bottom trawlers and artisanal metier targeting hake has been recommended to keep stock biomass at safe levels.

Pink shrimp (*Parapeneus longirostris*) – GSAs 22&23

Pink shrimp is fished by bottom trawlers and it is one of the main target species of the gear. Management regulations include seasonal (June 1 - September 30) and spatial closures of the bottom trawl fishery. The most recent assessment has been based on production modelling using survey (MEDITS) and catch data up to 2009.

Assessment results have demonstrated that, in both GSAs, stock biomass shows a general decreasing trend in the last 4-5 years of the study and current fishing pressure is at marginally safe levels. The Aegean stock (GSA 22) is slightly overfished (biomass below safe levels), while the Ionian stock (GSA 20) is still at safe levels. Although there are not any relevant data, it is reasonable to assume that the recent banning of bottom trawling in depths < 50m resulted in shifts of fishing effort at deeper waters producing a negative impact on species, such as pink shrimp, mainly inhibiting the slope region. A fishing effort reduction of bottom trawlers has been recommended to keep stock biomass at safe levels.

Status of the statistics and the information system

No significant changes of the pattern of collecting fisheries data have taken place during the last years. The Hellenic Statistical Authority (EL.STAT) remains the main and only, until the full implementation of Electronic Reporting System (ERS), administrative body gathering fisheries data from vessels having a motor engine exceeding 19HP. At the moment, there is a slight time lag of finalizing statistical data.

The Directorate General for Fisheries now supervised by the Ministry of Rural Development, and Food collects various data concerning among others the following:

a) Fish landing data for specific species (bluefin, swordfish and albacore) are collected daily, under the provision of being validated by the local port authorities, according to ICCAT Recommendations and the EU legislation. Moreover, in case of bluefin tuna, the BCD (bluefin catch document) is also collected daily with details about the caught specimens' presentation.

b) Statistical trade data concerning imports, exports and re-exports of swordfish and big-eyed tuna are kept, using the statistical documents of REG (EC) 1984/2003.

c) Statistical data concerning imports of fishery products from third countries as written down in the REG 1005/2008 as amended

d) Fish landing data from vessels that land catches to foreign ports.

The Ministry of Rural Development and Food / General Directorate of Fisheries and Local Prefectures keep data of the fishing fleet, which include vessel technical characteristics. All these data are inputted in the National Fleet Registry. The Ministry updates the Community Fleet Registry which is kept by the European Commission and allows for updating in terms of fishing vessels characteristics.

Status of research in progress

In Greece, the Mediterranean fisheries research is carried out primarily by the Hellenic Centre for Marine Research and the Fisheries Research Institute that belongs to the Hellenic Agricultural Organisation (DEMETRA). In addition to these two research institutes there are other departments in universities that carry out similar research work in fisheries. The following research projects are part of the ongoing research work.

National Fisheries Data Collection Programme 2011-2013

The following actions were carried out in 2012:

Pilot study for the monitoring of eel fisheries. This study will help to collect the data needed in order to formulate a data collection programme for the following years. This pilot study includes: a) the silver & yellow eel monitoring, taking into account the evaluation of landings of all adult eel catches and the biological sampling of catches and b) the examination of existence of any recreational activity.

MEDiterranean Acoustic Survey (MEDIAS). The aim of this survey is to annually collect scientific data in the Greek Seas in order to provide fisheries independent information for the assessment of small pelagic species. The survey follows the protocol of MEDIAS adopted by the survey Steering Committee during its meeting in Athens in February 2008.

Estimation of Biological Parameters and transversal variables relating to the fishing activity of drifting long lines The drifting long line fishery, in Greece targets swordfish *(Xiphias gladius)*, blue fin tuna (*Thunnus thynnus)* and albacore (*Thunnus alalunga*) which is bycatch in swordfish fishery. The length composition and the age structure of catches of swordfish were estimated from random measurements of individuals landed in the areas of Crete and Dodecanese. In addition, data collected concerning fishing effort expressed in fishing days and number of hooks and fishing production of the target species (swordfish) and main collateral fish (tuna, sharks). The data collection covered the entire fishing season of 2012 (February-September)

The Structure of Fish Populations and Traceability of Fish and Fish Products (FishPopTrace). FishPopTrace, an EU 7FP project, had as primary aim to develop genetic and biochemical tools with potential applications to monitoring, control, surveillance (MCS) and enforcement in the fisheries sector. This has been achieved through population structure analysis and fish (product) traceability focusing on four commercially important fish species, cod (Gadus morhua), hake (Merluccius merluccius), herring (Clupea harengus) and common sole (Solea solea), by using state of the art DNA-based analytical methods (SNPs) for population identification. In parallel, the consortium explored the potential of otolith microchemistry and shape, fatty acid analysis, proteomics, gene expression, and microarrays. The FishPopTrace consortium consisted of 15 partners with expertise in fish biology, population and conservation genetics, molecular biology and biochemistry, wildlife forensics, with representatives of the food industry and with strong links to European fisheries policy makers.
Although the outputs of the project are far from being completed, the first publications, listed below, indicate the population discriminatory power of most of the tools developed and thus their potential applications to MCS issues of interest to the EU and the EU CFP.
Further information on the project is available in the project's web site: http://fishpoptrace.jrc.ec.europa.eu/.

Rapid assessment of alien marine species in the Albanian and Montenegrin coast (ALBAMONTE). In the proposed study, the distributional patterns of a selected number of invasive alien marine species along the coasts of Albania and Montenegro will be investigated. Presence/absence surveys of the target species will be conducted at a large number of sites (~30 sites) in the study area. The present study will provide valuable insight on the invasion patterns of alien marine species in the area (North Ionian – South Adriatic Sea), it will reveal the hotspots of the distribution of alien species in the area, and will form the baseline for monitoring trends in the establishment of alien marine species and invasion rates. Distribution maps will be produced for each

of the studied species, by integrating the developed occupancy models with a GIS application. An inventory of the marine alien species of Albania and Montenegro will be created, based on the results of the field survey and of a questionnaire-based survey targeting fishermen, divers, scientists, tourists, and the wider public.

Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume or the mass of the net (ARCHIMEDES). The project objective is to create an algorithm based on the technical characteristics of the gill nets, trammel nets and bottom nets suitable to enable the Fisheries Inspectors to estimate the length of the net using its volume or weight.

Bycatch and Discards: Management indicators, trends and location (BADMINTON). The project aims to develop the knowledge of discarding patterns and factors in European fisheries, evaluate the efficacy of selective devices and other discard management measures that have been implemented in the past and improve methods to analyse, monitor, and manage by-catch and discarding in European fisheries.
The project is developed along five main steps:
1. A descriptive analysis of total catch in terms of species and size composition.
2. The development of indicators of discard issues: indicators of discard state (amounts and characteristics of discards), of the pressures that determine discards (selectivity of fishing), and of the management responses to this issue.
3. An analysis of the factors that determine discard amounts, including environmental settings, year-class strength, community composition, and fishing practices.
4. An analysis of socio-economic and institutional drivers and incentives that influence fishers' behaviour in regard to selectivity and discard.
5. Based on all previous steps, the elaboration of potential mitigation measures.

Bio-Economic Modelling TOOLs (BEMTOOL). Development of an integrated bio-economic modelling tool to develop and support multi-objective approaches for fisheries management. Identification of the main species and fleet segments/métier covering an adequate proportion of total catches/landings and total revenues of the main métier involved in multispecies multiple gears demersal fisheries in different Mediterranean sub-regions.
The Directorate-General for Maritime Affairs and Fisheries (DG MARE) has requested the development of an integrated bio-economic modelling tool to develop and support multi-objective approaches for fisheries management. The modelling tool should evaluate the biological and economic effects of different harvesting strategies directed at extracting the long-term maximum sustainable production while avoiding the risk of recruitment overfishing and modification in the ecological structure and functions of the exploited fish community. This approach should allow identifying the optimal level of fishing effort and/or catches per each main segment/métier of the fishing fleet in line with previously defined conservation goals while allowing the possibility to extract the maximum long-term economic value.

Management & Monitoring Of Deep-sea Fisheries and Stocks (DEEPFISHMAN). Target species in the Deep-water fisheries have posed particular difficulties for monitoring and management. There are few fisheries independent surveys carried out, their life history characteristics makes them difficult to assess and many of these fisheries are predominantly in international waters.
The primary objective of the project is to identify and develop new and more effective monitoring and assessment methods, reference points, control rules and a management framework to be used in the short term. The second objective is to develop a long-term monitoring and management framework to achieve reliable long-term management requirements.
The project outputs will aim to provide robust guidelines for deep-water fisheries management suitable for adoption within the Common Fishery Policy.

Judgment And Knowledge in Fisheries Involving StakeHolders (JAKFISH). The primary objective of the project is 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.

Mediterranean Network of sustainable small-scale fishing communities (FISHINMED). Creating a 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.

Mediterranean hAlieutic Resources Evaluation and Advice – HORIZONTAL SERVICES (MAREA). The project 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 which are currently required or will be required by the commission. DG MARE has asked for scientific advice for 7 different issues from which 3 have received a top priority status. The scientific subject of the first 3 tasks is:
1. Collection and mapping (GIS) of information for essential fish habitats
2. Development of a bio-economic modelling tool to develop and support multi-objective approaches for fisheries management. Identification of the main species and fleet segments/métier covering an adequate proportion of total catches/landings and total revenues of the main métier involved in multispecies multiple gears demersal fisheries in different Mediterranean sub-regions
3. Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume of the mass of the net.
The budget of each project will be agreed when each project will be approved by DG MARE and then, the proposal will be submitted for evaluation and approval from the Board of Directors of the Hellenic Centre for Marine Research separately and individually.

Monitoring and Evaluation of Spatially Managed Areas (MESMA). The 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). The project results will support integrated management plans for designated or proposed sites with assessment methods based on European collaboration. It comprises an easily accessible information system, containing gathered facts on the distribution of marine habitats and species, economic values and benefits, and human uses and their effects, aiming to support activities needed for sustainable use and protection of vulnerable areas. It will develop a strategic tool that can be applied throughout Europe, and will combine an optimized area use with a sustained ecosystem of high quality, taking into account the different ecological and economic features prevailing in diverse regions of the European seas.

Métiers in Small Scale Fisheries (Met-Sma-Fish). The main aim of this project was to identify the métiers that exist in the islands of the prefecture of Lesvos (NE Aegean) and to collect landings and effort data of each métier. In order to obtain a good knowledge of the characteristics of small-scale fisheries, data were collected on métier-based and the special features of each métier were taken into account.
The study has been financed by the European Commission under the Service Contract No 254114 (Invitation to Tender No IPSC/2008/04/01INC of 18/07/2008).

Updating the inventory of Marine Invasive Alien Species across European Seas (MIAS). Brief Description of the study: HCMR for the EEA will a)update and verify MIAS (Marine Invasive Alien Species) related data, and b) proceed to their assessment-Assessment Report-be used as part of both

the SEBI2010 Report and the Marine system assessment in Part B of the SoER2010 to be produced by the EEA.
HCMR will update its existing Marine Invasive Alien Species data base (HCMR database) based on new publications and updated national and regional websites (Cross-check MIAS databases and data archived in NOBANIS, and NEMO (Baltic Sea countries), DAISIE (Pan European excluding however the Black Sea) and the Black Sea MIAS list produced by the Black Sea Ecosystem Recovery Programme. This is to include resolution of initial significant disparities among data presented in the countries and regional websites on alien biota and those archived in the aforementioned databases.
The updated data will then be analysed, validated (via expert workshops organized by HCMR) and assessed by HCMR. HCMR will prepare a short Assessment Report (AR) to be used as part of both the SEBI2010 Report and the Marine system assessment in Part B of the SoER2010 of the EEA. The AR should be both about state of the environment and trends/Outlooks and also state of action. The report will link the state/impacts to the relevant EU policies, evaluate policy effectiveness and progress towards the 2010 CBD objective of halting biodiversity loss and will include the socio-economic dimension of the alien species issue. Finally the Assessment Report will have a 2020 Outlook on Future marine invasions in the main 4 European seas and why, taking also into account climate change impacts.

Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture (PREVENT ESCAPE). The primary objective of the project is to develop methods and technologies to prevent the escape of fish from aquaculture cages after the detailed assessment of such incidents in European waters and the study of their causes, as well as the species specific behavioural and biological characteristics of escapees and their interactions with the wild populations.

Socio economic effects of management measures of the future CFP (SOCIOEC). SOCIOEC is an interdisciplinary, 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. The central concept is to provide a mechanism for developing measures that are consistent with the overarching sustainability objectives of the EU, and that can provide consensus across all stakeholders. The first step will be to develop a coherent and consistent set of management objectives, which will address ecological; economic and social sustainability targets. The objectives should be consistent with the aims of the CFP, MSFD and other EU directives, but they should also be understandable by the wider stakeholder community and engage their support. This will then lead to the proposal of a number of potential management measures, based on existing or new approaches. The second step will be to analyse the incentives for compliance provided by these measures. In particular, we will examine fisher's responses and perceptions of these measures, based on historical analysis as well as direct consultation and interviews. This project part will also examine how the governance can be changed to facilitate self- and co-management to ensure fisher buy-in to promising management measures. In particular, the project will focus on the interpretation of overarching (i.e. EU) objectives in local and regional contexts. Finally, the project will examine the impacts of the management measures that emerge from this process, particularly in terms of their economic and social impacts. The IA analysis will be integrated by evaluating the proposed measures against the criteria of effectiveness, efficiency and coherence. Special attention will be paid in evaluating the proposed management measures' performance in terms of their ability to achieve the general and specific ecological objectives.

Surfacing System for Ship Recovery (SuSY). The proposed research is for engineering development for a salvage system to refloat sinking or sunken ships. HCMR is involved in the engineering review, feasibility studies, concept definition and sea trials of a prototype system.
Propagation of spillages is one of the largest environmental problems following a ship disaster. Instead of cleaning dirty areas, the SUSY system will avoid spillages by stabilizing vessels

immediately after an accident. The main goal of the project is the development of well-known submarine rescue technology into system usable for merchant ships in emergency situations. The systems for submarines are based on satellite booster technology with liquid or solid fuel to blow water out of the ballast tanks in a very short time to provide additional buoyancy to stop, for example, an uncontrolled diving process. Combining this technology with air pressure systems and balloon technology to create a multi-purpose modular system for ship rescue purposes is the SUSY project target. Therefore booster technology combined with pressure air technologies has to be adapted to salvage procedure requirements. In combination with new balloon textiles a secure vessel stabilisation process, as well as the salvage process, will be supported.
Different application scenarios/concepts can be envisaged: 1) preventative installation of rescue systems on ships with hazardous cargo, 2) equipment for coast guard and rescue squads to quickly stabilise capsized ships and 3) equipment for teams to lift sunken ships.
The technical challenges for SUSY where research is needed to develop the envisaged system are (1) developing a hydro-dynamical and a thermo-dynamical model as basis for a controlled process for the different possible scenarios, (2) developing a safety and secure buoyancy generating system based on liquid and solid fuel and air pressure, (3) find the right material to cope with the pressure, temperature and dynamic loads of the rescue scenario, (4) define a life-cycle cost model to assure the design of a low cost modular system, (5) simulate the different scenarios to provide input for the design optimisation, (6) Finally SUSY will build a prototype to proof the concept in real sea tests.

Management plan for the demersal trawl fisheries in the Greek seas (TRAWLPLAN). Development of a management plan for the demersal trawl fisheries in the Aegean and Ionian seas.

Catches of pelagic (drifting) longline fisheries in the Mediterranean (MEDPEL). The project objectives are to identify, in as much fine scale as possible, the spatiotemporal catch-rate variations of the main commercial and non-commercial (discarded) species in the Mediterranean pelagic long-line fisheries.

Marine environmental studies in progress

Architecture and roadmap to manage multiple pressures on lagoons (ARCHITECTURE). The project aims to the study and management of coastal marine aquatic ecosystems such as coastal wetlands. The contribution of the Institute for Marine Biological Resources is to study the coastal fisheries and the coastal resources along the front of such wetlands and the dynamics of the migration of these resources through the wetlands for reproduction and feeding purposes.

Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece, including the Inventory of Relevant Marine IBAs (ConShagAudMIBAGR). (1) Preparatoty actions for defining marine Important Bird Areas (mIBAs), and defining of mIBAs. (2) Preparatoty action for rat elimination and population control of sea gulls and realization of the respective actions in selected islets. (3) Actions for public awareness on sea bird conservation.

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 (Coral FISH). The CoralFISH project aims to support the implementation of an ecosystem-based management approach in the deep-sea by studying the interaction between cold-water coral habitat, fish and fisheries. Within the CoralFish project, multidisciplinary research cruises will be carried out in areas around Zakynthos and Cephalonia involving fisheries biologists, marine biologists, geologists and oceanographers. The seabed will be mapped and surveyed with high technology imaging tools including multibeam sonar, side scan sonar and remotely operated vehicles, to locate areas of corals and to identify the key organisms and the conditions that they live in. Further

cruises will be carried out to investigate the fish communities and their behaviour around the coral areas by ROV observation and long-line fishing studies. The project will last over 4 years and brings together 16 participating institutions from 11 European countries investigating study sites from Northern Europe to the Azores and from Italy to Greece in the Mediterranean.
The information collected in Greece, along with data from the other sites, will be used by the project participants to:
- develop essential methodologies and indicators for baseline monitoring of closed areas
- integrate fish into coral ecosystem models to understand coral fish-carrying capacity,
- evaluate the distribution of deep-water bottom fishing effort to identify areas of potential interaction and impact upon coral habitat,
- use genetic fingerprinting to assess the potential erosion of genetic fitness of corals due to long-term exposure to fishing impacts,
- construct bio-economic models to assess management effects on corals and fisheries to provide policy options,
- produce as a key output, habitat suitability maps to identify areas likely to contain vulnerable habitat.

Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (CREAM). The Coordinating Action (hereafter "the project") will establish an effective collaboration network among key role players in Mediterranean and Black Sea fisheries research and management. The participants in the project include national research institutes from Mediterranean and Black Sea countries with a long history and active participation in fisheries research and assessment, who provide advice to national, regional and international fisheries management organisms. The project will seek the active collaboration of regional and international fisheries management organisms as external participants in the project, in order to identify the gaps (in terms of data, knowledge, training, coordination) which hamper at present the full application of the Ecosystem Approach in the management of Mediterranean and Black Sea fisheries. The project will have a strong training and capacity building component in order to help harmonize data collection and methodologies used in fisheries assessment and management in the Mediterranean and Black Sea. The project will serve to establish the guidelines for the application of the Ecosystem Approach to Fisheries in the Mediterranean and Black Sea, both in EU member states and third countries.

The identification and mapping of Essential Fish Habitats using Geographic Information Systems (EFH-GIS). The identification and spatiotemporal mapping of Essential Fish Habitats (EFHs) represent the fundamental scientific tasks of the spatial component of fisheries management, a component that has often been neglected in previously enforced fisheries policies. EFH-GIS deals with the mapping of EFH in the Mediterranean through a GIS database update, map ocean processes, habitat modelling, MPA designation, and knowledge dissemination.

Collection of environmental, ecological, oceanographic and fisher data for the Argolikos gulf. (KOUPONIA). The General Secretariat of Research and Technology of Ministry of Development financed the action of national scope “(Kouponia) of Innovation for Small to medium-sized enterprises”. The financing amounts are coming from the Operational Program of “Competitiveness and entrepreneurship” (EPAN-II). The total amount of funding is 8,400.000 € and is covering all the Greek regions.
A key objective of the Strategic Plan for Research, Technology and Innovation is to support the needed technology needs of the various small median enterprises (SME). The aim is to support and strengthen small enterprises through the purchase of innovative consulting and support services knowledge/experience of innovators and also the support of the public laboratories and research

institutions (Universities, Technological Educational Institutions and Research Centers) which provide services of high value and intensity.

Mitigating adverse ecological impacts of open ocean fisheries (MADE). The primary objective of the project is to propose measures to mitigate adverse impacts of fisheries targeting large pelagic fish in the open ocean (purse seiners using FADs and long liners), through appropriate knowledge on the biology and ecology of species, and of the fisheries.

Mediterranean Sensitive Habitats (MEDISEH). The present 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: a) habitats protected under the Mediterranean regulation, b) nursery areas and spawning aggregations of demersal and small pelagic fish and c) areas under any form of protection within national and international legislation.

Maximising yield of fisheries while balancing ecosystem, economic and social concerns (MYFISH). The MSY concept was included as a principle in the 2009 Green Paper on the reform of the Common Fisheries Policy (CFP) in accordance with the global imperative to manage fish stocks according to the maximum sustainable yield (MSY). This implies a commitment to direct management of fish stocks towards achieving MSY by 2015. Attaining this goal is complicated by the lack of common agreement on the interpretation of "sustainability" and "yield" and by the effects that achieving MSY for one stock may have on other stocks and broader ecosystem, economic, or social aspects. MYFISH will 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. Further, MYFISH will 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. In short, MYFISH aims at integrating the MSY concept with the overarching principals of the CFP: the precautionary and the ecosystem approach. MYFISH will achieve this objective through addressing fisheries in all RAC areas and integrating stakeholders (the fishing industry, NGOs and managers) throughout the project. Existing ecosystem and fisheries models will be modified to perform maximization of stakeholder approved yield measures while ensuring acceptable impact levels on ecosystem, economic and social aspects. Implementation plans are proposed and social aspects addressed through active involvement of stakeholders. Finally, effects of changes in environment, economy and society on MSY variants are considered, aiming at procedures rendering the MSY approach robust to such changes. The expertise of 26 partners from relevant disciplines including fisheries, ecosystem, economic and social science are involved in all aspects of the project. Global experience is engaged from North America and the South Pacific.

Planning a network of marine protected areas for the Mediterranean Sea – NETMED. The present proposal suggests the 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. The aim is to protect marine biodiversity, in coastal and off-shore habitats, and preserve ecosystem services cost effectively. To accomplish this, spatial prioritization software will be used to accommodate ecological, social and economic considerations in identifying priority areas for conservation. The Mediterranean Sea offers a unique opportunity and urgent need to address this issue since: 1. especially in the western Mediterranean a large number of MPAs have already been implemented and can be used as initial framework for further implementation, 2. the knowledge about habitats and species distribution is far to be completed but some extensive mapping in several areas has been carried out and 3. the scientific community is highly sensible to the issue of Mediterranean habitats inventories as demonstrated by the effort of RAC/SPA. Given that and

considering the particularities (geographical, social and political) of the study region, new conservation planning methodologies will be devised. In order to improve the proposed network and increase public support, an intense consultation process with experts on Mediterranean marine biodiversity and stakeholders will follow the initial network design. The final product of this approach will be compared with other non-systematic and national-driven approaches. Results will be of immediate use to managers of MPAs and ongoing conservation planning throughout the Mediterranean; the proposed network of MPAs will be integrated within a broader ecosystem-based strategy.

Options for Delivering Ecosystem-based marine management (ODEMM). The overall aim of the ODEMM project is to develop a set of fully-costed 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. This will be achieved by: (i) providing a comprehensive knowledge base to support policy for the development of sustainable and integrated management of European marine ecosystems; (ii) developing Operational Objectives to achieve the High-Level Policy Objectives set by the MSFD and the HD, and with reference to the proposed Maritime Policy; (iii) identifying Management Options (individual management tools and combinations of tools) to meet the Operational Objectives; (iv) providing a risk assessment framework for the evaluation of Management Options and to assess the risk associated with the different options; (v) conducting a cost-benefit analysis of a range of Management Options using appropriate techniques; (vi) identifying stakeholder opinions on the creation of governance structures directed towards implementation of the ecosystem approach, and to elaborate different scenarios for changing governance structures and legislation to facilitate a gradual transition from the current fragmented management approach towards fully integrated ecosystem management; (vii) documenting the steps necessary for the transition from the current fragmented management scheme to a mature and integrated approach, and providing a toolkit that could be used to evaluate options for delivering ecosystem-based management; and (viii) communicating and consulting on the outcomes of the project effectively with policy makers and other relevant user groups.

People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast (PEGASO). The aim of PEGASO is to build 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.
Many efforts have been deployed for developing Integrated Coastal Zone Management (ICZM) in the Mediterranean and the Black Sea which continue to suffer from severe environmental degradation.
PEGASO will use the model of the existing ICZM Protocol for the Mediterranean and adjust it to the needs of the Black Sea through four innovative actions:
- Construct an ICZM governance platform as a bridge between scientist and end-user communities, going far beyond a conventional bridging. The building of a shared scientific and end users platform is at the heart of our proposal linked with new models of governance.
- Refine and further develop efficient and easy to use tools for making sustainability assessments in the coastal zone (indicators, accounting methods and models, scenarios, socio-economic valuations, etc.). They will be tested and validated in 9 sites (CASES) and by the ICZM Platform, using a multi-scale approach for integrated regional assessment.
- Implement a Spatial Data Infrastructure (SDI), following INSPIRE Directive, to organize local geonodes and standardize spatial data to make it available to the ICZM Platform, and to disseminate all results.
- Enhance regional networks of scientists and stakeholders in ICPC countries, supported by capacity building, to implement the PEGASO tools and lessons learned, to assess the state and trends for coast and sea in both basins, identifying present and future main threats, agree on responses to be done at

different scales in an integrated approach, including Tran disciplinary and Tran boundary long-term collaborations.

Contribution in the elaboration of the Strategic Study of Environmental Impact of aquaculture within the frame of the National Cadastral Design and Sustainable Development plan for aquaculture (SMPE). Based on the EU and national legislation, the development of a production sector is required to be based on a National Cadastral and Sustainable Development Plan, major part of which is the Strategic Environmental Impact Study which includes the expected impact from the further development of aquaculture in Greece as well as set the roadmap and guidelines for this development.

Water body in Europe: integrative system to assess ecological status and recovery(WISER). WISER, an EU 7FP project, supports the implementation of Water Framework Directive (WFD) by developing tools for the integrated assessment of the ecological status of the European surface waters. Within this framework is the developing and testing methodological tools (e.g. EEI-c) most appropriate for the classification of ecological status of the Mediterranean transitional and coastal waters, using benthic macrophytes as bioindicators.

Involvement in activities of FAO Regional Projects

Participation in EastMed FAO Project activities (April 2012-March 2013)
During the period April 2012-March 2013, a number of Greek researchers from Public Institutes and Fisheries officers from the administration, along with other colleagues from the EastMed Project staff and from the other participating countries, took part in several activities concerning the objectives of the project and based on the work plan for the mentioned period:

Management measures

Large Pelagic fishery. All Recommendations on BFT and swordfish in the Mediterranean Sea as adopted by ICCAT and GFCM were fully implemented during the intersessional period..
The swordfish fishery is managed by national legislation since 1987. Recently this legislation was harmonized with the Rec. GFCM/36/2012/3.

Purse seine fishery. According to the provisions of article 6 of the Reg. (EC) 2371/2002 19 and the requirements of article 19 of the Reg. (EC) 1967/2006 a national management plan for the small pelagic fish stocks of Engraulis encrasicolus (anchovy) and Sardina pilchardus (sardine) exploited by purse seine fishery has been implemented in 2012.
The management plan provides for the procedure for the issuing of fishing authorisations valid for one year, the protection of the environment from the use of the gear, the definition of an annual monitoring plan according to reference points and targets for the sustainable exploitation of the fish stocks of anchovy and sardine.

Bottom trawling fishery. Similarly, a draft of a national management plan for the trawling fishery throughout the Greek territory has been submitted for approval to the competent authorities of EC.
The management plan provides for of an annual monitoring plan according to reference points and targets for the sustainable exploitation of the fish stocks of Mullus barbatus (red mullet), Mullus surmuletus (striped mullet), Merluccius merluccius (hake), Spicara smaris (pickerel) and Parapenaeus longirostris (pink shrimp).

Eel Management Plan. The introduction of an Eel Management Plan which includes measures targeting to the direct reduction of fishing and natural mortality, the establishment of an efficient recording system and the improvement of the efficiency of eel migrations

Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area

Greece has not applied any derogation form the aforementioned Recommendation. The coral fishing is regulated by national legislation which is in force since 1994. According to this, fishing authorisations are issued and the fishery is managed by regulating the allowable fishing depth, the harvesting areas and the permitted fishing gear. National legislation will be updated according to Recommendation GFCM/35/2011/2.

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

Cetaceans are not targeted in any fishery in Greece. Regarding to incidents of dead cetaceans special care is provided for data collection since 2000. The use of monofilament nets is forbidden in the Greek waters since 1997.

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

Sharks and rays are not targeted species for any fishery in Greece, however their catch is monitored by the National Fisheries Data Collection Programme.

ITALY/ITALIE

Description of the fisheries

The national fleet registered in the Vessel Register, and operating as of December 2011, consists of 13,078 vessels accounting for a total tonnage of 175,523 GT and 1.063.052 kW.
The following analysis is focused on vessels operating in Mediterranean waters – 13,064 units – thus excluding 14 oceanic fishing vessels.
Fishing capacity of the fleet in 2011 continued to decrease steadily, with a 4% drop in GT and 2.6% on capacity (kW).
Following the adoption of the new Adjustment Plan on Fishing Effort of 6th April 2010 and the ensuing decommissioning plans, 332 vessels ceased their fishing activities, with an overall capacity reduction of 8,352 GT e 45,388 kW.
The fishing fleet reduction plan, which included permanent withdrawal of vessels, thus accelerated over the last two years. It involved vessels larger than national average, therefore tonnage of the current fishing fleet decreased from 13,7 GT in 2009 to 12,9 GT in 2011. Likewise, average engine power dropped from 82kW in 2009 to 80,2 kW in 2011.
The largest segment within the fleet is still represented by small-scale fishing, which is composed of 8,764 vessels, followed by trawlers (2,525 vessels), hydraulic dredges (706), passive polyvalent gears, (186), purse seiners (268) and mid-water pair trawlers (132).
Trawlers account for most (60%) of the domestic tonnage; small-scale fishing vessels, though representing the largest number of units, only make up for 10% of the total tonnage.
As for geographic distribution, the fleet still shows the same features that always distinguished the Italian fleet: low concentrations – with the exceptions of Apulia and Sicily, both in terms of number of vessels and tonnage – and strong differences in specialization, in terms of productivity and profitability, between the Adriatic and Sicilian fisheries on the one hand, and the Tyrrhenian fleet on the other.
A steady decline in fishing activity characterize the Italian fleet: between 2004 and 2011 the number of days at sea fell by an average of 6%, dropping to 16% for midwater pair trawlers, 15% for hydraulic dredges, 12% for purse seiners and 7% for bottom trawlers. This trend can only be partly due to an increase in fuel price, though this surely had an impact on the trend over the last three years. But more generally, the decline in fishing activity can be explained by a different organization of the fishing sector, where operators spontaneously adopted strategies to optimize time spent at sea, both for commercial reasons and in order to cut back on operation costs associated to fishing and landing activities.
The fishing sector employed about 29,000 workers in 2011. Small-scale fishing is the most relevant sector from a social and job-related point of view, followed by trawling and purse seining.
Comparing data from 2004 to 2011, the socio-economic impact of the decline in fishing activities is considerable; the number of employees fell last year below 30,000. Since 2004, jobs lost in maritime fisheries amount to 6,000 units.
This trend is mostly due to the reduced number of fishing vessels, but also to the decline in their physical and economic productivity. The increase in production costs, especially in the past two years, contributed to a decline in the economy of fishing enterprises and thus of workers. The annual cost of labour per worker, which amounts to the gross earning of the crew, fell by 20% both on an annual and a monthly basis.

Table 1. Capacity and economic indicators by fleet segments, 2011

	2011						
	Total fleet	**Trawlers**	**Pelagic fleet**	**Dredges**	**Small scale fishery**	**Multipurpose vessels**	**Longlines**
Capacity Indicators							
Volume of landings (‘000ton)	210	72	67	22	37	8	5
Value of landings (EUR million)	1090	520	109	63	296	63	39
Economic indicators							
Fleet - number of vessels	13 301	2 679	444	700	8 795	491	192
Fleet - total GT (‘000)	169	104	27	9	17	7	6
Fleet - total kW (‘000)	1 048	499	115	76	251	70	36
Average days at sea	133	147	108	85	134	131	123
Employment	28 724	8 431	2 491	1 480	14 008	1 589	726

Source: MIPAAF - IREPA

In 2011 the Italian fleet produced 220,324 tonnes generating 1,090.33 million euro. Results are down 6% in quantity and 1% in value since 2010, following the downward trend of the last few years, also characterized by a consistent downscale of the sector. Contrary to the trend in previous years, the decline in 2011 took place in spite of a higher activity of the fleet (+5%); hence both in unitary and in daily terms a worrying decrease in productivity took place in 2011. The average catch per vessel and revenue dropped considerably, and particularly the annual average catch per vessel, which fell below 16 tonnes - the lowest since 2004.

The only positive performance in 2011 was by the average production price, which for the first time in years had a slight positive trend (+4.8%) that partially compensated the decline in catches. Ex vessel price was 5.18 €/kg, the highest since 2007.

In terms of landings, the most important species in 2011 for the Italian fleet was anchovy (54,095 tonnes) followed by clams (19,748 t) and pilchard (16,274 t). Anchovy represented 24% of the total catches, while clams and pilchard were 9% and 7% respectively.

Anchovy production consistently declined over 2004-2011, reaching the lowest levels since 2008; although improved in the last two years, landings are still substantially lower than in 2004 and 2007. After a peak in 2004, pilchard landings levelled out; the same applies to hake: not considering the peak and exceptional production of 2006, landings between 2004 and 2010 hovered between 12,000 and 14,000 tonnes. Clams go through a roughly regular cycle while deep-water rose shrimps, after two exceptionally bad years (2007-2008), are recovering steadily.

The species that in 2011 provided the largest economic contribution is hake, which produced 90.06 million euro in revenue and represents 7.7% of the total value of landings. Anchovy is the second most important species, with 75.95 million euro, followed by deep-water rose shrimps and swordfish, accounting for 76 and 68 million euro respectively. These species are showing a positive trend, while hake and clams are stationary and anchovy and Norway lobsters are declining.

Swordfish production levels soared, especially during the third quarter of 2011 when it was the most landed species, with an increase in production by 18%. Swordfish landings amounted to around 6,000 tonnes. Considering the high average price at landing (11.18€/kg) swordfish continues to be a highly significant species in the whole domestic fishing sector. On a geographic basis, 67% of swordfish catch come from the Sicilian fleet and 11% from the Sardinian fleet (630 t). The increased

performance is partly due to the improved efficiency of the gear, following technological advancements introduced in recent years.

Table 2 Main species harvested by quantity and value

	2011			
	Tonnes (‘000)	%	EUR million	%o
European Anchovy	46,2	22,0	78,4	7,2
Striped venus	19,7	9,4	52,7	4,8
European pilchards	14,4	6,8	12,7	1,2
European Hake	10,5	5,0	86,1	7,9
Deep-water rose shrimp	10,0	4,8	73,5	6,7
Common cuttlefish	5,8	2,8	56,6	5,2
Spottail mantis squillid	5,4	2,6	35,9	3,3
Swordfish	5,4	2,5	61,0	5,6
Striped mullet	4,8	2,3	27,0	2,5
Changeable nassa	4,7	2,3	17,0	1,6
Mediterranean horse mackere	4,4	2,1	7,7	0,7
Common squids	4,0	1,9	28,5	2,6
Mullets	3,6	1,7	6,8	0,6
Squids	3,1	1,5	15,9	1,5
Musky octopus	2,8	1,4	12,6	1,2
Other fish	65,5	31,1	518,0	47,5
Total	210,3	100,0	1090,3	100,0

Source:Mipaf-IREPA

Status of stocks of priority species

The information used to assess resources status in the seas around Italy derives by both fishery independent data (GRUND and MEDITS trawl-survey) and monitoring of commercial landings and discards, collected within the framework of the European Regulations on Fishery Data Collection (Reg EC 1543/2000 and subsequent amendments and additions, Data Collection Regulation - DCR and Data Collection Framework - DCF).

The GSA (7 geographical sub areas surround Italy), represent the reference spatial scales for evaluation and assessment are mainly based on SURBA, XSA, VPA, VIT, ALADYM; and different versions of surplus production models.

The evaluated species are those with highest commercial value in Italian fisheries. The assessments dealing with stocks shared with other Mediterranean countries were performed within the GFCM framework and were supported by FAO Regional Project AdriaMed, MedSudMed. The evaluation concerning stock fished almost exclusively by Italian fisheries were done in the WGs supported by European Union.

As regards demersal fish, a heavy overfishing status of hake *Merluccius merluccius*, was detected in all the GSAs. Fishing mortality rates higher than the target ones (F0.1) were found in the Strait of Sicily (GSA 16 and adjacent GSAs), and in the Southern Adriatic Sea (GSA 18). A state of heavy overfishing was also found in the Central and Southern Tyrrhenian Sea (GSA GSA 9 and 10) and in the seas around Sardinia (GSA 11).
Concerning the red mullet *Mullus barbatus* the species resulted in overfishing in the Strait of Sicily (GSA 16 and 15) and in GSA 9, 10, and 11, being the intensity of overfishing lower than the hake one. In some of the GSA, increasing trends of the biomass of the standing stock from the late nineties were reported.
A situation of overfishing was detected for sole, *Solea vulgaris*, in the Adriatic Sea (GSA 17), common pandora, *Pagellus erythrinus*, in the Strait of Sicily (GSA 16 and 15) and in the Northern Tyrrhenian (GSA 9), stripped red mullet, *Mullus surmuletus*, in the northern Tyrrhenian (GSA 9) and Black bellied anglerfish, *Lophius budegassa*, in the Strait of Sicily (GSA 16 and 15).

As concerns the crustaceans Norway lobster *Nephrops norvegicus*, resulted in overfishing in northern Tyrrhenian (GSA 9). A status of overfishing was also detected for mantis shrimp, *Squilla mantis*, in Adriatic (GSA 17) and Northern Tyrrhenian (GSA 9).
The stocks of deep water rose shrimp *Parapenaeus longirostris* were found in overexploitation in southern Tyrrhenian (GSA 10) Strait of Sicily (GSA 16 and adjacent GSAs), and southern Adriatic (GSA 18), although the positive trend of the standing stock could be a sign of environmental changes that support the productivity of these stocks. Conversely sustainable exploitation was assessed in the GSA 9.
The giant red shrimp, *Aristaeomorpha foliacea*, in the Strait of Sicily (GSA 16 and adjacent GSAs), in the seas around Sardinia (GSA 11) and in northern Tyrrhenian (GSA 9) was assessed in overfishing. The same status of overfishing was detected for violet shrimp *A. antennatus* in the GSA 9.

Regarding the small pelagics, signs of overfishing for the stock of anchovies *Engraulis encrasicholus* are highlighted in the Strait of Sicily (GSA 16), while in the Adriatic Sea (GSA 17) the exploitation rate resulted sustainable.

A fully exploited status, with no room for further expansion status was found for the stock of sardines *Sardina pilchardus* in the Adriatic (GSA 17), while, although the catch level was moderate, low level of sardine standing stock were found in the Strait of Sicily (GSA 16).

Status of the statistics and information system

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.
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.
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.

Status of research in progress

Fisheries data have been collected, in the framework of the Italian National Data Collection Program 2012, according to the legal Community framework put in place in 2008 with the adoption of a

Council Regulations, a Commission Regulation and a Commission Decision laying down the detailed rules of application (Reg. CE 199/2008; Commission Decision 93/2010/EC).
In accordance with chapter II of the annex of the Commission Decision, this national program comprised the following modules:

(1) Module of evaluation of the fishing sector:
  (a) Section for the collection of economic variables
  (b) Section for the collection of biological variables
  (c) Section for the collection of transversal variables
  (d) Section for research surveys at sea
(2) Module of evaluation of the economic situation of the aquaculture and processing industry sectors:
  (a) Section for the collection of economic data for the aquaculture sector
  (b) Section for the collection of economic data for the processing industry
(3) Module of evaluation of the effects of the fishing sector on the marine ecosystem
(4) Module for management and use of the data covered by the data collection framework

The General Directorate for Fisheries and Aquaculture (MIPAAF) is in charge of the overall coordination of the implementation of the National Data Collection Programme. MIPAAF is the national counterpart for the exchange of information between the European Commission and Italy regarding the DCF. Italian fisheries take place in 7 Geographical sub areas (GSA) and different institutes, members of the consortium that assists the MIPAAF, are in charge of collecting data (such as economic data, transversal data, biological data for demersal small and large pelagic species, recreational fishery on tuna and eel, aquaculture data, VMS data, ecosystem data, surveys data) on each one of these GSAs.
In implementing the Data Collection Framework, continuity with data and time series collected under the previous years has been assured. A particular attention has been given to the regional approach and compliance with Regional Coordination Meeting for the Mediterranean and Black Sea (RCMMed & BS) has been assured. Regarding the two surveys, MEDITs and MEDIAS, these have been carried out in line with previous years.

Other main research activities

Research activities on marine living resources have been carried out in Italy by several bodies, both private and public, among which are mainly involved University Departments and Research Institutes.

Development of a net (ITAFISHNET) for the exchange of information between national researchers

Development of the System GIS-PESCA on the entire coastline

Assessment of Bycatch of protected species in the pelagic trawl

Nutritional and safety aspects of fish species from fishery and aquaculture

Bio-economic models

Assessment of *Anguilla anguilla* in the framework of UE Reg. 1100/2007

Preliminary assessment of the main species of Elasmobranchs

Assessment of the red coral in the Italian seas

Diffusion of *Anisakis sp* and potential risks

Species identification of fishery products

Status of the social sciences studies in progress

Cooperation development in the Mediterranean fishery sector – the labour context, the producers associations, training

Marine environmental studies in progress

Spatio-temporal identification of nursery area in the Italian seas;

Guidelines and technical measures for the management of Fishery Restricted Areas;

Fishery and marine pollution: studies on the effects of pollutants on marine fishery.

Involvement in activities of FAO Regional Projects

The Ministry of Agriculture, Food and Forestry Policies is the Donor of three FAO regional projects in the Mediterranean, namely AdriaMed "*Scientific Cooperation to Support responsible Fisheries in the Adriatic Sea*", MedSudMed "*Assessment and Monitoring of the Fishery Resources and the Ecosystems in the Straits of Sicily*" and EastMed "*Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean*". An *ad hoc* contribution to the activities of the Project MedsudMed has been provided also by the Regione Siciliana (Italy).
Italy's contribution to the achievement of FAO Regional Projects objectives is not exclusively financial, as it includes also partnership based on technical support and provision of human resources. National research Institutions contribute and participate to the development of Projects activities including: surveys at sea, capacity development programmes, data collection, technical discussion, meetings, data sharing and joint analysis, joint stock assessment, staff training and development. In addition National Focal Points, fisheries administration and research institutions actively participated in multilevel consultations toward the identification of ways and means to elaborate possible management options to be adopted in the Adriatic Sea within the framework of AdriaMed.

Overall:

- 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);
- 5 joint stock assessment (*Parapnaeus longirostris*, *Merluccius merluccius*, *Mullus barbatus*, 2 *Squilla manthis*, *Solea solea*, *engraulis encrasicolus*, *Sardina pilchardus*) have been produced in the Adriatic Sea;
- Involvement either trainer and/or trainees in 9 theoretical or on-the-job training activities on the collection, storing and processing of fishery related data;
- Involvement in 12 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.

Within the EastMed Project a pilot study on the collection of fisheries data is being conducted in which a working experience in Italy was organised in order to understand the Italian fisheries data

collection system. During the mission different institutions involved in data collection were visited and some meetings with relevant professionals took place.
Within the framework of the EastMed project "Assistance to the artisanal fishery in the port of Naqoura" financed by the Italian Cooperation, EastMed is providing technical assistance to build the capacity of the staff of the National Centre for Scientific Research (CNRS) in terms of data collection and analysis and train the fishers on the correct use of new fishing techniques.

National management measures

The management of fisheries in Italy is based on the EU Regulations 2371/2002, (CFP, Common Fishery Policy), and n. 1967/2006 specific for the fisheries in the Mediterranean Sea. Within this reference framework, specific technical measures have been adopted to ensure exploitation and conservation of living aquatic resources or the protection of marine ecosystems. Among other management measures, temporary closure of trawling activities (i.e. otter bottom trawling) have been implemented in different GSAs. The calendar and duration of fishing closures defined in agreement between national and local administrations. The period of the trawling closure generally varies among regions in order to ensure that the intervention is tailored to the biological characteristics of the main fisheries target species. Adjustment plans of Fishing Effort have been implemented in order to achieve a sustainable balance between fishing activities and state of natural resources, within the framework of the Fisheries Operational Programme and have been defined by fleet segment and geographical sub-area (GSA).

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*
According to our best updated knowledge, validated scientific studies providing new information on Italian coral populations at depth less than 50 m are not available. Therefore, derogation of paragraph 4 is not currently applicable at the Italian level.
A national management framework does not exist; the harvesting of red coral is regulated only in Sardegna and Toscana. The management measures enacted in these regions provide for the prohibition of harvesting:
- in Sardegna at depth less than 80 m (decreto n.761 GAB/DecA/42 del 21.05.2012)
- in Toscana, at depth less than 60 m from the 2014 harvesting season (Decreto del presidente della giunta regionale 23 luglio 2012, n. 42/R)

"Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area" and *"Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area"*

Within the framework of implementation activities of Regulation (EC) 812/2004, MiPAAF is funding a research and monitoring programme on bycatch of cetaceans and other protected species and species of conservation concern. Details on annual bycatch rates in pelagic/mid-water trawlers and total estimates of bottlenose dolphins (*Tursiops truncatus*), loggerhead turtles (*Caretta caretta*), and a number of elasmobranch species (including, *Alopias vulpinus, Pteromylaeus bovines, Pteroplatytrygon violacea, Myliobatis aquila, Mustelus sp, Squalus sp,*) for GSA 17 can be found in Annual Reports on the implementation of Council Regulation (EC) 812/2004. In 99% of bycatch events sea turtles are released at sea alive and in good conditions. Regarding elasmobranch species, the vast majority of animals are released at sea alive. Specimens of Alopias vulpinus, Squalus sp and Mustelus sp are retained by fisherman and marketed.
The pelagic/mid-water trawl fishery does not seem posing a serious threat to bottlenose dolphins at the population level.

Research Suggestions for consideration by SAC

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 development of a common geo referred data base reporting both bathymetric, substratum features, biocenoses, and fishing grounds at regional level.

JAPAN/JAPON

Description of the fisheries

Description of the fishing grounds and GSA
No Japanese vessels have operated since 2010 in the Mediterranean.

Total landings by main targeted species
No Japanese vessels have operated since 2010 in the Mediterranean.

Fleet
All the Japanese large-scale tuna longline vessels are authorized to fish for tuna and tuna-like species in the Atlantic Ocean and the Mediterranean in accordance with Japan's license system for tuna fishery. Therefore, Japan has submitted to the GFCM Secretariat the list of its vessels that are authorized to operate in the GFCM Area including all the Japanese large-scale tuna longline vessels. Meantime, Fisheries Agency of Japan authorizes its specified fishing vessels to fish for Bluefin Tuna in the Atlantic and Mediterranean Sea each fishing year in accordance with relevant ICCAT conservation and management measures. Recently, no Japanese vessels have operated since 2010 in the Mediterranean.

Number of vessels: 273(registered) 0(active)
LOA
Range: 30.22m – 56.05m
Average: 48.16m
Total GT: 107,373GRT

Status of stocks of priority species

When the Japanese longline operated in the Mediterranean, they targeted only Bluefin tuna in the GFCM Area. This stock has been managed by ICCAT.

Status of the statistics and information system

All the Japanese tuna longline vessels are required to submit its catch report to the Fisheries Agency of Japan. The catch reports submitted are compiled and analyzed by National Research Institute of Far Seas Fisheries of the Fisheries Research Agency (NRIFSF) and the fisheries data regarding the Atlantic Ocean and Mediterranean are submitted to the ICCAT Secretariat in the required format.

Status of research in progress

The biological and stock assessment researches on Atlantic tunas and billfishes have been carried out by the NRIFSF. These researches, however, are not focused on the Mediterranean because no Japanese vessels have operated there recently and we can't collect the data.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

There is no social science study on the Japanese tuna fisheries in the Mediterranean provided to the Fisheries Agency because of no fishing data.

Marine environmental studies in progress

The Fisheries Agency of Japan and the NRIFSF have been conducting various programs and studies. However, there is no program or studies focused on the Mediterranean area because of no fishing data.

Involvement in activities of FAO Regional Projects

There are no activities of FAO Regional Projects which Japan involved in the Mediterranean.

Management measures

Japan has been implementing the ICCAT and GFCM recommendations related to fishing activities in the Mediterranean. But Japanese fishing vessels have not operated in the Mediterranean recently.

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*
No Japanese vessels have operated since 2010 in the Mediterranean.

With regard to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area*
No Japanese vessels have operated since 2010 in the Mediterranean. Thus, we don't have any information about it.

With regard to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*
No Japanese vessels have operated since 2010 in the Mediterranean. Thus, we don't have any information about it.

LEBANON/LIBAN

Description of the fisheries

Description of the fishing grounds and GSA

GSA 27. The Lebanese coastline is 220 km long. The continental shelf is narrow, especially in the South. Bottom grounds are mainly rough with intensive rocky patches, good for stationary demersal gear. The fisheries of Lebanon are classified as small-scale, artisanal, and are traditionally based on bottom stationary gear (trammel nets and longlines), purse seine nets, and beach seines. Fishing operations, with the exception of longlines, are mostly carried out at depths of up to 50 meters. Most of the fishing nets (purse seines, gillnets and beach seines) have small mesh sizes (less than 2x2 cm).

Total landings by main targeted species: **N/A**

Only partial data for North Lebanon (40% of coastline) are available from a private University (University of Balamand). The landings in North Lebanon, from main species, were 4,540 tons in 2012.

Fleet: (according to 2004 Census)

• Number of vessels: 2,662
• LOA (range and average):
Range: 2.5-24.8 m
Average: 6.92m
• Total KW + GT:
KW: 48,341 (for 2,378 vessels)
GT: 18,426 ton (data available for only 608 vessels)

Status of stocks of priority species

Two stock assessments (single species length based stock assessment method) were carried out, but not validated, in North Lebanon for *Boops boops, Diplodus sargus sargus.* The results indicated that the stock of *B. boops* is overfished, with an exploitation level of 0.55, higher than Emax, equal to 0.517. The stock size totals 50,993 kg, with a total catch of 28,046 kg. For *D. sargus sargus*, the exploitation level was 0.4, and has not yet surpassed Emax (=0.42). The stock size totals 323,173 kg, with a current total catch of 129,269 kg,

Status of the statistics and information system

- **Catch Assessment**: An initiative at the Marine Resources and Coastal Zone Management program (MRCZM) at the Institute of the Environment, University of Balamand (IOE-UOB) has been collecting commercial fisheries data in the Mohafaza (district) of North Lebanon and Akkar on a regular basis since August 2005. The geographical coverage of the monitoring program represents approximately 42% of the Lebanese coast. The main goal is to establish long-term monitoring of commercial fish species landings and effort in order to develop appropriate management plans based on scientific data to sustainably benefit from the resource. The data collection is an indirect method where data is collected twice per week, 12 months a year. The data is gathered from the four main fishing harbors in addition to the main fish markets in the target area while fishing effort is obtained from the records of the Lebanese

Army that records boat activity on a daily basis. The variables currently being evaluated are:

- Fishing gear type (Nets, Lines, Pots)
- Fish species landed per gear type: Quantity (Kg)
- Average fish size (# Fish/Kg)
- Prices (LBP/Kg)
- Fishing effort: Total number of fishing boat outings during 24 hours; and number of fishing boats per gear type

Data is then entered into a software application dubbed **FLOUCA** (Lebanese term for fishing boat and stands for **F**ish **L**anding **O**perational **U**tility for **C**atch **A**ssessment) based on the generic software and standard statistical methodology available on the web by the FAO. The system is structured into three distinct but inter-related components:

- **Web-based Fishing Licensing System:** Currently fishing and other related licenses are hand filled with carbon copies kept for MOA records. The MOA licensing system has not been computerized and it is difficult to trace records and draw meaningful statistics. It is expected that a new web supported Licensing System Database (MOA LSDB) will increase the effectiveness of current administrative procedures (benefitting MOA , fishermen, and other stakeholders) and, in parallel, assist MOA to fulfil its statistical commitments at national, regional, and international levels. FAO EastMed Project adopted the idea and commissioned a consultant (Dr Constantine Stamatopoulos) to evaluate current situation, propose solutions and TOR to establish System. Furthermore, EastMed Project finances software development & required hardware.

Status of research in progress

- **MRCZM-IOE-UOB. (2012).** ***Pilot survey on fisheries dependent data collection in Lebanon including training (PO 299074) at the MRCZM-IOE-UOB (www.balamand.edu.lb); 2012-2013.*** The project will contribute to improve and implement the national fisheries dependent data collection program. This activity includes training courses for Fisheries Officers from the Department of the Fisheries and Wildlife within the Ministry of Agriculture (MoA), on the collection of catch and effort data, which also includes training on procedures and methods on how to run a data collection system.

- **MRCZM-IOE-UOB. (2012).** ***Historical Catch Reconstruction for fisheries in Lebanon at the MRCZM-IOE-UOB; (www.balamand.edu.lb); 2012-2013.*** The MRCZM team is collaborating with the Fisheries Center of the University of British Columbia, Vancouver, Canada, in order to reconstruct the Lebanese historical catch for Lebanon since 1950 based on available historical data. The results will act as baseline information for fisheries managers and is expected to be published in the 'Atlas of the World's Marine Fisheries', Fisheries Centre Research Reports (www.fisheries.ubc.ca/publications/fcrrs).

- **Bustani, L. (2012)**. ***Biological Study and Stock Assessment of Boops boops, Diplodus sargus sargus, and Lagocephalus scleratus off the Coast of North Lebanon, a Master Thesis at the MRCZM-IOE-UOB (www.balamand.edu.lb); 2011-2012.*** This thesis studied the biology and growth of *Boops boops, Diplodus sargus sargus,* and *Lagocephalus sceleratus* and held single species length based stock assessment for the three species. The study investigated the stock status of the commercial species *Boops boops* and *Diplodus sargus sargus*, and the status of the population of the Lessepsian species *Lagocephalus sceleratus. L. sceleratus* is negatively affecting the national fishery and the surrounding ecosystem. Results of the three species are in the process of being published in related scientific journals.

- **M. Bariche (2012)** *Field identification guide to the living marine resources of the Eastern and Southern Mediterranean.* FAO Species Identification Guide for Fishery Purposes. FAO, Rome, 610 pp.

- **M. Bariche, A Kajajian (2012)** *Population structureof the bluespotted cornetfishFistularia commersonii (Osteichthyes: Fistulariidae) in the eastern Mediterranean Sea.* Journal of Biological Research 17: 74-80

- **M. Bariche (2012)** *Recent evidence on the presence of Heniochus intermedius(Teleostei: Chaetodontidae) and Platycephalus indicus (Teleostei: Platycephalidae) in the Mediterranean Sea.* BioInvasions Records 1

- **M. Bariche, P Heemstra (2012)** *First record of the blacktip grouper Epinephelus fasciatus(Teleostei: Serranidae) in the Mediterranean Sea.* Marine Biodiversity Records 5: e1

- **M. Bariche, E. Azzurro (2012)** *New records and establishment of the Indian Ocean twospot cardinalfish Cheilodipterus novemstriatus (Rüppell, 1838) in the Mediterranean Sea* BioInvasions Records 1: 4. 299-301

- **Colloca F., Lelli S. (2012***). Report of the FAO EastMed support to the fishing trials carried out off the South Lebanese Coast*. GCP/INT/041/EC – GRE – ITA/TD-14

- **Lelli S., Colloca F., Jouma S. and Khalaf G. (2012).** ***Fishing survey in South Lebanese waters: a pilot testing unit for alternative fishing metiers (CANA-Naqoura Project)***. Land-Sea Interactions in the Coastal Zone. INOC/CNRS, November 2012.

- **Pesca Libano Project.** "Technical Assistance to the Ministry of Agriculture in the field of fishery development" (implemented by CIHEAM-MAI Bari (leader), the Istituto Agronomico per l'Oltremare (IAO), Lebanese Ministry of Agriculture (MoA) and the Lebanese National Council for Scientific research (CNRS):
  - Full digitalization of on land marine fishery facilities for socio-economic exploitation and development: This task aims at developing a centralized GIS system (Marine Coastal Information System: MCIS) in order to support and strengthen the potentialities of the MoA in managing marine and fishery resources, by collating scattered information and integrating socio-economic and environmental dimensions into a geodatabase and allowing the rendering of such information through GIS. The GIS will be integrated with a web-application.
  - Marine resources mapped, identified and better exploited. To assess the distribution and abundance of fisheries resources along the Lebanese coasts in order to deliver scientific advices to MoA for an enhanced fisheries management while improving the capability of the CNRS in carrying out sampling at sea. In addition, this activity is including fishing trials with experimental gears in off-shore water to assess the economic and biological sustainability of new fishing metiers, and the collection and analysis of benthic samples with the aim to identify the benthic community occurring in correspondence of the main fishing grounds.
  - Pilot study on the use of VMS systems on fishing vessels. In collaboration with the GFCM, a pilot study on the use of VMS is going to be carried out on 3 small vessels. The devices are currently in Lebanon and the tests are planned to start in the month of April 2013.

- **CANA Project.** "Establishing Monitoring and Sustainable Development of the Lebanese Sea" financed by the Italian Ministry of Foreign Affairs and run by the CNRS:
  - Studies on alien fish species with particular focus on puffer fish (Lagocephalus) and cornet fish (Fistularia)
  - Study of biology and distribution of cartilaginous fish along the Lebanese coast
  - CANA Project by Lebanese National Council for Scientific Research (CNRS) is further involved with:
    - Sea Physical Environment
    - Hydrology, Hydrobiology and Biodiversity
    - Mammalian and Fishery:
      Protection plan both for mammalian and fishery resources - ACCOBAMS.
      Stock Assessment training
      Aquaculture feasibility study

- Coastal Pollution

o Activities indirectly related to fisheries:

- Scientific campaigns over the last 2 years (8 seasonally based sampling campaigns) were performed for collecting data on physic-chemical parameters, nutrients and primary production along the Lebanese coast.
- Two years of data collection on 25 sampling points for bacteriological study along the Lebanese coast.
- Data collection on 16 sampling points selected for the study of heavy metal contaminants in biota and sediments along the Lebanese coast.
- Habitats assessment of selected areas for marine protection purposes - an exhaustive study on the biodiversity was implemented (in collaboration with the Marine Protected Areas Project between the CNRS - Ministry of Environment - RAC/SPA).
- Impact of domestic wastewater on the sediment of Ramlet el-Bayda, Beirut public beach
- Contamination and mobility of metallic trace elements such as lead, cadmium and copper in the sediments of one hot spot of pollution (the Naval Base of Beirut)
- Effects of continental input on marine environment in the Lebanese coastal waters

o PHD theses: Two theses on fisheries sciences are being conducted at present at the CNRS - National Centre for Marine Sciences:

"Etude de la biologie et de l'écologie des petits pélagiques du littoral libanais"; PhD student, Mr. Sharif Jemaa in coordination with ULCO, Université du littoral. Côte d'Opale.

"**Study of the biology and ecology of the elasmobranches in the Lebanese waters, with particular focus on the species *Centrophorus granulosus***"; PhD student Ms. Myriam Lteif in coordination with the University of Perpignon.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

- Draft Lebanese Fisheries & Aquaculture Law drafted by GFCM was finalized and translated into Arabic.
- First country-wide pilot socio-economic survey of fishing communities was conducted through EastMed Project.

Marine environmental studies in progress

❖ People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and Coast (PEGASO) at the MRCZM-IOE-UOB (www.balamand.edu.lb); 2010-2014

❖ Evaluating coastal risk on the Chekka El Heri beach through the assessment of the physical oceanographic parameters at the MRCZM-IOE-UOB (www.balamand.edu.lb); 2011 – 2013

❖ Deployment of an Artificial Reef in front of Aabdeh – North Lebanon at the MRCZM-IOE-UOB (www.balamand.edu.lb); March 2012- June 2012

❖ Environmental Resources Monitoring Project (UNEP) at the MRCZM-IOE-UOB (www.balamand.edu.lb); 2011-2012

❖ UNDP early recovery of NBC surrounding municipalities' project at the MRCZM-IOE-UOB (www.balamand.edu.lb); July 2011- January 2012

Involvement in activities of FAO Regional projects:

- EastMed Project: the project is involved in developing:
  Fishing Licensing System: (in progress)
  Catch assessment pilot study: in collaboration with University of Balamand (in preparation)
  Feasibility study for a new fishing vessels design and/or new vessel building materials (in progress).
  Pilot country-wide socio-economic survey (Year 1 implemented, year 2 in progress)

Management measures

Minister Decision 8/1 on 4/1/2012 regarding the organizing and defining some marine fishing gear – Fyke nets.
Acquiring and commissioning of four fisheries patrol boats to help in monitoring and control activities

With regard to: ***Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area:***
N/A
With regard to: ***Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area***
N/A
With regard to: ***Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area***
N/A

Research suggestions for consideration by SAC

- 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 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
- Research the impact of invasive species on commercial stocks in particular and the coastal marine ecosystem in general with a special emphasis on *L. sceleratus*
- Update on a yearly basis the list of coastal marine biodiversity richness in Lebanese territorial waters
- Monitor marine food chains and webs in the perspective of climate change with a special emphasis on primary producers
- Monitor marine macro-algae in the perspective of climate change

LIBYA/LIBYE

Description of the fisheries

Fishing ground: 21

Total fishing of fish
No fishing activity in 2011 due to Libyan revolution.
No accurate total landing of fish in 2012 due to difficulties to collect all the production from our (13) offices which distributed along the whole Libyan coast

Fleet segment

The number of our fleet was changed due to Libyan revolution.
A technical connect was nominated in order to check the actual figure of our fleet compared with the registered fishing units.

Status of stocks of priority species

No stock assessment and no species evaluated during the intersessional period.

Status of the statistics and information system

No major improvement/change occurred on the national fishery statistics during the intersessional period.

Status of research in progress

Apart from a frame survey that is currently being undertaken by staff members at Zoology Department/Faculty of Science no research work of interest to GFCM is in progress.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

The only achievements on the socio-economic aspects of the fishing communities and fishing sector were the two reports prepared by MBRC research workers on 2008 and 2009.

Marine environmental studies in progress

No studies carried out during the intersessional period which are relevant to the impact of the marine environment changes on priority stocks and on the ecosystem alteration originated by the fisheries activities which were seldom active during the intersessional period.

Involvement in activities of FAO Regional Projects

Libyan scientists and workers were involved in:
1. Participation in all MedSudMed functions.
2. Analysis of the biomass of small pelagic of 2010 survey.
3. Analysis of the distribution of egg and larvae and some environmental factors in the eastern part of Libya on 2010.
4. Participation in a number of MedSudMed workshops.

5. Participation in COPEMED II workshop on Fishing Gear in Tangir/ Morocco.

Management measures

- Declaring of Farwa Lagoon as a marine reserve
- Declaring Ain El Gazala and Al-Elba Lagoons as natural Reserves
- Trawl fishing for demersal fish species was prohibited during the period Jun through July 2009.
- In compliance with GFCM recommendation 2006-2 fishing for dolphin fish is prohibited by law from 1 January to 14 August of each year.
- Fishing for sponges in Libyan waters is being forbidden from 1 November to 30 May of each year and prohibited for the season of 2010.

With regard to**:** ***Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area***
No exploitation of red coral exists in Libya, although there was a record of its occurrence in the eastern coastal waters.

With regard to: ***Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area***
No relevant information available.

With regard to**:** ***Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area***
MBRC has issued an identification manual on cartilaginous fishes as 1st step towards the process of conservation of sharks and rays.

Proposal for future research programmes

A proposal of Marine survey related to a assess the distribution and abundance of demersal fishes along the western part of Libya already prepared

MALTA/MALTE

Description of the fisheries

Fisheries in Malta are a relatively small industry where its social significance far outweighs its economic importance. The industry is mainly artisanal and fairly typical of the fisheries found in many Mediterranean countries. There are no inland fisheries in Malta. The average value of catches is around 0.10% of Malta's Gross Domestic Product (GDP), with the industry's direct contribution to GDP estimated at around two-thirds of this figure when the cost of imported inputs, particularly fuel, is considered. According to the Fishing Vessels Register, the full fleet capacity of registered vessels in 2012 was 2,989 of which 405 (13.5%) vessels and 631 (21.1%) vessels were commercial full-time and part-time vessels respectively. The recreational category made up of 1,921 (64.3%) vessels operating with recreational fishing gear and fish caught were not commercialised. The remaining 32 (1.1%) vessels represent the work boat category.

The total gross tonnage and power of main engine for the full-time and part-time commercial vessels totalled 6,463.9 t and 44,530.6 kW respectively. The length of full-time and part-time registered vessels ranged between 3.45 to 37.70 m and 3.05 to 18.50 m respectively. The recreational vessels ranged between 2.43 to 22.10 m and that of the workboats ranged between 5.50 to 32.53 m. 81.7% of commercial full-time and 99.5% of commercial part-time measure less than 12m LOA.

Table 1. Number and type of Maltese fishing vessels by length class, status June 2012

Registration type	Number of vessels by length class				
	VL0006	VL0612	VL1224	VL2440	N° of vessels
Full-time commercial	129	202	64	10	405
Part-time commercial	379	249	3		631
Recreational	1 643	265	13		1 921
Work boats	1	12	14	5	32
Grand Total	2 152	728	94	15	2 989

Table 2. Gross tonnage by vessel registration type and length class, status June 2012

Registration type	Gross tonnage (GT) by vessel length class				
	VL0006	VL0612	VL1224	VL2440	Total GT
Full-time commercial	137.3	952.1	3 559.7	1 814.8	6 463.9
Part-time commercial	385.3	833.0	84.3	-	1 302.6
Recreational	1 380.0	859.1	403.8	-	2 642.9
Work boats	0.8	85.4	738.0	773.0	1 597.2
Grand Total	1 903.5	2 729.6	4 785.7	2 587.8	12 006.6

Table 3. Power of main engine by vessel registration type and length class status June 2012

Registration type	Power of main engine (kW) by vessel length class				
	VL0006	VL0612	VL1224	VL2440	Total kW
Full-time commercial	3 686.5	19 434.6	16 478.2	4 931.4	44 530.6
Part-time commercial	9 678.6	20 646.3	404.3	-	30 729.3
Recreational	42 489.9	23 734.8	4 034.6	-	70 259.3
Work boats	104.4	1 677.6	3 624.3	2 185.4	7 591.8
Grand Total	56 611.9	66 096.5	26 164.5	22 795.8	171 668.7

Catches recorded in 2012 from logbooks and Catch Assessment Survey, were dominated by swordfish *(Xiphias gladius)*, chub mackerel (*Scomber japonicas*), round sardinella (*Sardinella* aurita), dolphin fish (*Coryphaena hippurus*) and blue fin tuna (*Thunnus thynnus*) in decreasing order of importance as shown in table below. Catches of dolphinfish occur mainly between the 15 August and 31 December mostly by the Fish Aggregating Device (FAD) fishery. Between the months of April and July the market is dominated by the landings of bluefin tuna and swordfish. Both these species are targeted by the same method that is pelagic drifting long-lines. The major fishing area is GSA15, however the long-line and trawling fleet also operates in the neighbouring GSAs.

Table 4. The ten most important marine capture fisheries in terms of catches (from logbooks and CAS data) for the Maltese fleet in 2012

Scientific name	FAO 3A Code	Weight (t)	% dist.
Xiphias gladius	SWO	503.36	33.0
Scomber japonicus	MAS	249.02	16.3
Sardinella aurita	SAA	193.101	12.6
Coryphaena hippurus	DOL	181.038	11.9
Thunnus thynnus	BFT	136.553	8.9
Mullus surmuletus	MUR	75.219	4.9
Boops boops	BOG	51.883	3.4
Aristaeomorpha foliacea	ARS	48.061	3.1
Squalus blainvillei	QUB	47.129	3.1
Spicara flexuosa	PIC	42.025	2.8
Grand Total		1527.389	100

Landings of other demersal species originate from trawling, bottom long-lines and fixed net operations (trammel and gill nets). During the winter months (December to April) most boats target demersal species.

Status of stocks of priority species

In 2012 the joint stock assessments for pink shrimp (*Parapenaeus longirostris*) and hake (*Merluccius merluccius*) in GSAs 12-16, was updated by Maltese, Tunisian and Italian scientists, combining data collected throughout the Central Mediterranean. This stock assessment was conducted under the auspices of the MedSudMed project, and finalised at the 2012 GFCM demersal working group workshop. Stock assessments were also carried out by Maltese scientists in collaboration with Italian scientists based at CNR-IAMC in Sicily combining GSAs 15 and 16 for the following species: black-bellied angler (*Lophius budegassa*), giant red shrimp (*Aristaeomorpha foliacea*), red mullet (*Mullus barbatus*) and common Pandora (*Pagellus erythrinus*). These assessments were done at stock assessment working groups organised by the EC. The biological reference points used were $F_{0.1}$, and F_{max}.

Table 5. Results of stock assessment conducted in 2012 (reference year = 2010)

English Name	Scientific Name	Reference year	$F_{current}$	$F_{0.1}$	Stock Status	Maltese Share of 2011 Landings (%)
Black-bellied angler*	*L. budegassa*	2010	0.35	0.17	Overexploited	1.43**
Pink shrimp	*P. longirostris*	2011	1.65	1.18	Overexploited	0.26
Hake*	*M. merluccius*	2010	0.25	0.19	Overexploited	0.28
Giant red shrimp	*A. foliacea*	2010	1.00	0.40	Overexploited	2.00 (2008)
Red mullet	*M. barbatus*	2011	1.3	0.45	Overexploited	3.59**
Common Pandora	*P. erythrinus*	(mean 2006-2011)	0.72	0.30	Overexploited	3.00

* Preliminary** Excluding Tunisian landings.

Status of the statistics and information system

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.

Data for the eventual analysis of stocks is derived from the Maltese sampling activities in line the EC Data Collection Framework (EC 199/08, EC 949/08, EC 93/2010). In 2012, Malta was obliged to collect biological data by the DCF for the following fishing gears;

- Bottom otter trawlers targeting mixed demersal and deep water species
- Drifting longlines targeting large pelagic fish
- Set longlines for demersal fish
- Trammel nets targeting demersal species
- Pots and traps for demersal species
- Bottom otter trawlers targeting demersal species
- Bottom otter trawlers targeting deep water species
- Purse seines targeting bluefin tuna (sampling at harvest)

Length data is collected for all Group 1, 2 and 3 species as outlined in the EU DCF. Biological parameters were also collected for bluefin tuna, swordfish and dolphin fish since catches generally constitute more than 200 tonnes annually and for some other Group 1, 2 and 3 species when possible. Such data is gathered to be utilised for analyses, such as for stock assessments.
Fisheries-independent data for demersal resources in GSA 15 is collected through the MEDITS (Mediterranean International Bottom Trawl Survey) while MEDIAS (Mediterranean International Acoustic Survey) targets small pelagic fish. These surveys are performed with the aim to study the demographic and spatial distribution of resources in the Mediterranean, with a standardised protocol between different countries.

The fisheries statistics being collected have been submitted to international organisations for stock assessment purposes and scientific analysis. In 2012 Malta submitted data collected within the framework of the DCF to several international bodies / for use by several projects:

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

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.

Status of research in progress

Using data collected under the DCF of the EU, the FAO sub-regional project MedSudMed and EU projects, Malta has been focusing on analysing data with particular reference to determining the stock status of commercially important demersal species (see section 2 above). In addition, research is being conducted on the following themes:

- Determination of growth parameters for *Coryphaena hippurus* and collection of samples for genetic analysis for the determination of stock boundaries within the Mediterranean.
- Genetic analysis of *Octopus vulgaris* tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16)
- Monitoring and evaluating spatially managed marine areas (EU FP7 project MESMA)
- Ecosystem Approach to Fisheries (EAF) management (EU FP7 project CREAM)
- Bridging the GAP between fisheries scientists and fishers, through identification of nursery and spawning ground of commercially important demersal species within the Malta FMZ (EU FP7 project GAP)

Status of the social sciences in progress or achieved during the intercessional period

Socio-economic data is collected on an annual basis to fulfil the requirements of the Data Collection Framework (DCF) in line with Council Regulation EC 199/2008, Commission Decisions 2008/949/EC and 2010/93/EU, and the GFCM Task 1.3.

Fleet socio-economic data is segmented by gear and vessel length according to Appendix III of Commission Decision 2010/93/EU and in the case of the GFCM requirements, as proposed by the 5th session of the Scientific Advisory Committee (SAC). The sampling population is based on the fishing vessel register, as well as on logbook information where data on catch and landings is recorded. The sampling frame for the fleet economic data is based on the Maltese fishing vessel register information as at 30th January of the reference years and the sampling strategy used is that of stratified random sampling. The data is collected by means of questionnaires which are completed during direct interviews with the fishers.

Fish processing activities are limited in Malta however data collection by means of a survey amongst local operators is carried out annually. The frame for the collection of economic data is based on the Maltese business directory and processed fisheries products. The technique of census is planned to be

carried out annually due to the small size of the market. Data is collected by means of postal questionnaires or questionnaires completed during direct interviews.
Socio-economic data with regards to aquaculture farms is collected from all the aquaculture farms in Malta. The frame for the collection of economic data is based on the registered aquaculture operations as at 1 January of the particular reference years. Data is collected by means of postal questionnaires or questionnaires completed during direct interviews.
The results of this data collection are sets of variables or indicators as requested by Appendices VI, X and XII of Commission Decision 93/2010 and by task 1.3 in the case of the GFCM fleet economic data requirements. The aim of this data collection is to satisfy the European Commission's and GFCM requests as well as to monitor at a National level the socio-economic performance of the fisheries sector, fish processing industry and the aquaculture sector.
Malta annually submits the report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities in accordance with Commission Regulation (EC) 1013/2010. Amongst other sections, the report presents a set of technical, biological, economic and social indicators. Malta presented socio-economic indicators related to the years 2008 to 2011.

Marine environmental studies in progress

Recent as well as ongoing studies with relevance to the marine environment surrounding the Maltese Islands include:

- Identification and mapping of the spatial distribution of sediment types and biocenoses in GSA 15, including the spatial distribution of sensitive habitats such as maerl beds
- Researching the biology of prawns (*Palaemon* and *Processa* spp.) targeted by artisanal beam trawls traditionally used on *Posidonia oceanica* meadows

Management measures

Malta implemented the management measures in line with EU regulations, and according to the recommendations by ICCAT and GFCM. In 2013 Malta submitted its updated Fisheries Management Plan in line with EC 1967/2006 to the EC. The plan outlines fisheries management measures for the fleet segments bottom otter trawlers and lampara in 2013-2015. Furthermore, plans for dolphinfish FAD fishery and tartarun were submitted.

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*
In Malta red coral is a strictly protected species listed in Schedule VI – Animals and Plant Species of National Interest in need of Strict Protection – of the Legal Notice 311 of 2006 (as amended) – Flora, Fauna and Natural Habitats Protection Regulations, 2006. Thus recommendation *GFCM/35/2011/2* does not apply for Malta.
With regards to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM* area, the Fisheries Control Directorate conducts onboard observations on Drifting longlines and FAD. Catches of cetaceans are being monitored through this source.
With regards to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*, data on shark catches are recorded at the fish market and during onboard observations.

Proposals for future research programmes

Currently Malta is focusing on its Data Collection Framework, in view of the changes being proposed at EU level with regards to the Common Fisheries Policy.

MONTENEGRO/MONTÉNÉGRO

Description of the fisheries

Montenegro is part of GSA 18 that shares with Albania on the east coast and with Italy on the west coast. In front of Montenegro is south Adriatic basin with the greatest depth of 1228m. The area of territorial water is 2460 km² and continental shelf 3885 km². The greatest part of Adriatic shelf is covered with muddy and sandy sediments. Sandy sediments are formed on the coastal area and in the shallow parts of Adriatic shelf, where on greater depths can be found muddy sediment, i.e. mud that derives from the land.
Activities of data collection on landings of main species have begun in recent years.

Table 1. Fleet

LOA	Number	KW	GT
Minor gear without engine < 6 m	5	0	5.14
Minor gear with engine < 6	41	245,59	60,06
Minor gear with engine 6-12 m	33	1795,57	106,9
Trawl 6-12 m	4	607	43,86
Trawl 12-24 m	13	2666,15	342,83
Trawl > 24 m	1	252	117
Purse seiners 6-12 m	11	412,31	28,13
Purse seiners 12-24 m	2	684	87
Polyvalent vessels >12 m	2	1456	345.4

Note: Polyvalent vessels are >24 m LOA, and they are using combined bottom trawl and pelagic trawl, e.g. purse seine.
Approximately 20 big vessels will be operating in Montenegro starting from 2013:
6 trawlers > 24 m; 17 purse seiners 12-24 m LOA

Status of stocks of priority species

The MEDITS Trawl Survey was carried out in July 2012 at depths ranging from 10 to 800 m. All the trawl-surveys have been carried out by the vessel "Pasquale & Cristina". The duration of the hauls is fixed to half an hour on depths less than 200 meters and one hour on more important depths. The sampling design was random stratified (according to five bathymetric strata: 10-50 m; 50-100 m; 100-200 m; 200-500 m; 500-800 m). Each catch sample collected by the trawl net has been sorted; the fish, crustacean and cephalopod species have been identified, weighted and counted.

The computer software ATrIs provided by FAO/AdriaMed was used for data input and processing.
Monitoring of demersal resources was continued (by seasonal dynamics) in collaboration between researchers from the Institute of marine biology and fish company D.O.O. Vujičić (Budva) and it was funded by the Ministry for agriculture and rural development. Surveys were performed on 10 stations in 4 different stratums (10-50, 50-100, 100-200, 200-500 meters) and total surveyed area was 5 000 km^2. During the investigation parameters of population dynamic of commercially important species have been collected (by MEDITS Protocol). The data have been processed and presented through the final report to the Ministry of Science and through the final report of the IPA project "Sustainable management of marine fishery". As trawl fishery is the most important component in Montenegrin fisheries, the monitoring of demersal resources continues with the support of the Ministry of agriculture and rural development.

The European hake, *Merluccius merluccius* is one of the most important species in the GSA 18. Stock assessment of hake for GSA 18 was performed in 2012, and the results showed that Montenegrin

trawlers account for about 1% of the F. Considering that the fleets of three countries (Albania, Italy and Montenegro) are involved in hake fishery in GSA18 most of the F is derived from the Italian bottom trawlers and loglines (approximately about 92-93% of F).

Situation was similar with the deep-water pink shrimp (*Parapenaeus longirostris*), another economically important species in the southern Adriatic. According to the 2012 assessment for the GSA 18, Montenegrin trawlers account to only 1.7% of the F exerted on the stock.

Biomass estimation of small pelagic species by DEPM and acoustic method

An estimate of anchovy biomass in Montenegrin waters was performed for the first time in 2002 by acoustic method, and it was continued in 2004. From August 2005, anchovy biomass was estimated by two methods simultaneously: DEPM and the acoustic method. The second cruse that involves application of both methods was performed in July 2008 when survey covered entire Montenegrin and Albanian continental shelf, while in 2010, 2011 and 2012 survey was expanded to all GSA 18. Those surveys have been done in collaboration with researchers from Italy and Albania in the frame of MEDIAS Project with the support of FAO AdriaMed project.

During the GFCM SAC Working Group on Small Pelagic Species (SCSA) (Chania, Greece 24-29 October 2011) the Adriatic experts presented a joint contribution, prepared in the framework of the AdriaMed Project. The contribution was a preliminary stock assessment for anchovy in South Adriatic Sea by using acoustic and DEPM data collected in 2008 and 2010. The contribution received some criticism on spawning frequency and the high mortality of anchovy eggs reported. To address the issues raised during the Working Group on Small Pelagic (SCSA), the AdriaMed Project organized a series of meetings during 2012, within the newly established Study Group on DEPM, with the participation of international experts. All the steps of the sampling protocol at sea and the methodology used to perform DEPM studies were verified. Preliminary results on anchovy SSB estimation in GSA 18 for 2011, using revised methodology, was presented on GFCM SAC Working group on stock assessment of small pelagic species (Split, Croatia, 05-09 November 2012). Revision of the previous anchovy SSB estimation will be made (2008 and 2010).

Pilot Study on biological and economic data collection and monitoring systems on Operational Units in Montenegro included sampling of several target species in three main fishing ports in Montenegro (Herceg Novi, Budva and Bar). Those researches started in 2007, and continued through 2008, 2009, 2010 and 2011. Results will be published as AdriaMed occasional paper in near future.

Status of the statistics and information system

The legislative framework covering fisheries information system includes:

- a Law on Marine Fishery and Aquaculture;
- a secondary legislation.

In the period from 2010 to 2012 through the IPA 2009 “Sustainable management on marine fishery” financed by EU Montenegro developed the couple of sub systems for the data collection in Fishery:

- ✓ Monthly report for the vessels up to 10 m LOA,
- ✓ Common Alarm System,
- ✓ Common User Management System,
- ✓ Application for the Vessel Monitoring System,
- ✓ Application for the GFCM Task 1 report (developed through the MEDFISIS project)

There is the plan that by the end of 2014 Montenegro will implement the application for the Electronic Logbook, Sales notes and Application for Sampling data and Biological data. Also, Montenegro will deliver, by the end of this year, the first GFCM Task 1 report directly from the Fisheries Information System to the GFCM secretariat.
Remark: All this sub systems are still in testing phase, by the end of this year it should be fully operated.

Status of research in progress

Activities within the AdriaMed project framework continued. The pilot study on biological sampling data on Montenegrin coast has been finalized in 2011-2012. Samples of eighteen economically important species were taken from vessels in three fishing ports Bar, Budva, Herceg Novi by monthly dynamics. The results of the pilot study have been processed and are ready to be presented and published. In the frame of Project MEDIAS (supported by FAO AdriaMed Project) biomass estimation of small pelagic species in GSA 18 using DEPM and Acoustic method will be continued in 2013. In the frame of Project MEDITS (supported by FAO AdriaMed Project) biomass estimation of demersal resources will be continued in 2013.

Data collection of population parameters for juvenile anchovy and sardine from small scale fishery in Boka Kotorska Bay has also been finalized. The data has been published through two PhD Theses.
A detailed study of biology and population dynamics of the deep-water pink shrimp (*P. longirostris*) (2006-2010) on the Montenegrin shelf was the subject of another PhD Thesis.
So far, very little information was available on the small-scale fisheries in Montenegro. In 2012, a project called "Monitoring of coastal fisheries and fish fry composition along the Montenegrin coast, with the aim of conservation and sustainable management of marine fisheries (MORM-MONT)" begun, under the support of the Ministry of Science. The project is expected to last for three years.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

Description of the achievement and/or progress in activities related to the national research on the socio-economic aspects of the fishing communities and fishing sector.
In 2011 the Pilot project on collecting socioeconomic data in marine fishery has not developed. Further elaboration and continuation of this project is expected in the next period.

Marine environmental studies in progress

The management plans for marine ecosystems is conducted as a pilot project in two main phases during 18 months program (July 2009 – December 2010). The first phase of the management plan was referred to characterization of the study area (environmental and socio-economic assessment) and identification of the main strategies for biodiversity conservation. The second phase was preparation of the management plan and implementation of the strategies identified in Phase 1.
The pilot area comprises the city of Petrovac which belongs to the Budva Municipality.

Proposed "KATIĆ"MPA zones in the Montenegro.
Zone regulations have been proposed, according to four levels of control by MPA management, and as a result three proposed protection zones were delineated:
- Zone A – red zones (strict biodiversity protection) - 80 ha (3.46%)
- Zone B – green zone (active biodiversity protection) - 900 ha (38.88%)
- Zone C – blue zone (general environmental protection) - 1335 ha (57.66%)
- Buffer – 140 ha

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.

Also, scientists from the Institute are involved in process of development of new documents related to coastal area of Montenegro:
- Coastal Area Management Programme (**CAMP) - ongoing**
- Special Plan for the Coastal Area of Montenegro **(PPPOP) – ongoing**

Management measures

Description of the management measures (legislation, regulations, etc.) implemented during the intersessional period and their (expected) effects on the fishery

The Law on Marine Fishery and Mariculture was adopted by Parliament in August 2009. This Law lays down the objectives and the principles for sustainable management of living marine resources and marine environment through implementation of measures for protection of biodiversity and the environmental conditions as well as by laying down the procedures for development and adoption of management plans in the fishery sector. This Law also governs the general fishery policy, that is, the support to development of the fishery sector and the respective responsibilities of the administration authorities as regards its implementation. Pending the establishing of an administration authority in charge of the fishery affairs (the Fishery Administration) the administrative and related technical affairs will be carried out by the Ministry of Agriculture and Rural Development.

The document "National program of Fisheries Development (NFP) from 2009 to 2013" was adopted by the Government of Montenegro in February 2009. This document contains middle term and short term aims of fishery development, type of measures and programs, expected results and sum and sources for financial fund necessary for implementation of identified measures of fishery policy.

In September 2010 started an IPA 2009 project Sustainable management of marine fisheries, which is funded by the EU. The end of the project is June 2012, during this project have been provided strengthening of the fisheries inspection, strengthening the capacity of the fisheries sector in the Ministry of agriculture and rural development, preparing the secondary legislation for the VMS, Sales Notes, First lending ports and amendments on Law in accordance with new changes of Common Fisheries Policy CFP-EU and GFCM recommendations.

Regarding the GFCM Recommendations GFCM/35/2011/2, the red coral is not exploited in Montenegro in any form; it is protected by the "Resolution on protection on certain plant and animal species" (Official Gazette of Montenegro 76/06)**.**

On the GFCM Recommendation GFCM/36/2012/2 (incidental catches of cetaceans), no incidental catches of cetaceans have been reported in Montenegrin waters. However, the current "Resolution on protection on certain plant and animal species" (Official Gazette of Montenegro 76/06) of the Environmental Protection Act (O.G, 51/2008) explicitly states that "it is forbidden to remove from their habitat, damage or destroy, hunt, disturb, catch or kill any of the plant and animal species listed under Article 1 of this Decision, as well as their developmental stages, lairs and nests; their habitats are not to be damaged or destroyed". The cetacean species listed under the mentioned Article 1 of the

Decision are: *Delphinus delphis, Stenella coeruleoalba, Stenella frontalis, Tursiops truncates, Grampus griseus* and *Balaena physalis*.
The GFCM Recommendation GFCM/36/2012/3, regarding the fisheries management measures for conservation of sharks and rays is currently being considered for integration of the legal acts in Montenegro.

Research suggestions for consideration by SAC

None.

MOROCCO/MAROC

Introduction

La pêche en Méditerranée marocaine revêt une grande importance économique et sociale au Maroc. La production halieutique en Méditerranée s'élève à une moyenne d'environ 4 % de la production totale nationale en poids, avec une valeur économique moyenne de 12 % de la valeur totale des débarquements.
Les ressources halieutiques sont caractérisées par une importante biodiversité et sont composée de plus d'une vingtaine d'espèces commerciales. Elles sont exploitées par des flottilles composées de barques d'un tonnage inférieur à 2TJB (pêche artisanale) et de bateaux côtiers d'un tonnage compris entre 2 TJB et 150 TJB (pêche côtière). Ces flottilles utilisent une multitude d'engins comme la ligne à la main, les nasses, la palangre, la senne ou le chalut.
Les ressources halieutiques font l'objet d'un suivi scientifique régulier, réalisé par l'Institut National de Recherche Halieutique (INRH), à travers des campagnes de prospection en mer et un système de suivi des débarquements à terre et d'échantillonnage biologique. Ces activités de suivi scientifique en Méditerranée sont majoritairement assurées par les centres régionaux de l'INRH basés à Tanger et à Nador, visant notamment à étudier la biologie et l'écologie des espèces marines, à comprendre et modéliser les interactions des espèces exploitées avec leur environnement, à étudier la dynamique des stocks et de leur exploitation, à évaluer leur niveau d'exploitation, à étudier l'impact de la pêche sur l'environnement et l'écosystème marin et à effectuer des études socio-économiques relatives au secteur halieutique.

Description des pêcheries

La pêche en Méditerranée marocaine a réalisé en 2011 une production d'environ 31 711 tonnes d'une valeur de 549 millions de dirhams.
Les principales espèces exploitées sont la sardine, le chinchard, le maquereau, l'anchois, l'espadon, les thonidés mineurs, le merlu, le pageot acarne, le pageot commun, la bogue, le poulpe, la sole, la crevette rose, et des espèces de squales.
La flotte marocaine active en Méditerranée se distribue entre 7 ports de pêche et environ 86 sites de débarquement de la pêche artisanale. Cette flotte est composite. En 2011, elle est constituée de 144 senneurs (pêcherie pélagique), de 229 unités côtières dites palangrières, de 123 chalutiers côtiers et de 2907 barques constituant la pêche artisanale.
À noter que la flotte dite palangrière est composée d'une importante diversité de profils de navires qui utilisent une multitude d'engins (palangre, filet fixe, filet maillant dérivant (a été interdit dans toutes les côtes marocaines y compris les côtes méditerranéennes à partir du premier janvier 2012), ligne, nasses, etc.) et ayant recourt à des stratégies de pêche très diverses.
La production par groupe d'espèces (y compris Tanger) est présentée ci-dessous sur la base des statistiques des pêches de 2011 établies par l'Office National des Pêches (ONP, 2011) :

Espèces	Poids (Tonnes)	Valeur (KDhs)
CEPHALOPODES	2 257	98 697
COQUILLAGE	-	2
CRUSTACES	874	55 728
POISSONS PELAGIQUES	19 578	162 395
POISSONS DEMERSAUX	7 433	145 272
THONIDES	1 569	86 567
TOTAL	**31 711**	**548 661**

La pêche en Méditerranée peut être classée en trois types de pêcheries :

Pêcherie pélagique
La pêcherie pélagique cible principalement les poissons pélagiques constitués principalement par les quatre espèces de petits pélagiques suivants :

- la sardine;
- le chinchard;
- le maquereau;
- l'anchois.

L'exploitation des petits pélagiques en Méditerranée marocaine est effectuée par des senneurs côtiers. Cette flottille est composée en 2011 de 144 senneurs, utilisant la senne tournante coulissante comme engin de pêche, avec une production d'environ 20 000 tonnes (2011) pour une valeur de 162 millions de dirhams. Ces senneurs ont une puissance motrice moyenne de 323 CV, un TJB moyen de 47 tonneaux et une longueur moyenne de 18 m. La pêche pélagique cible essentiellement la sardine, mais des quantités non négligeables de chinchard, de maquereau, et d'anchois figurent aussi dans les débarquements de cette pêcherie. La sardine a connu une baisse très importante en poids en 2011, soit - 49 % par rapport à 2010. Par contre, les débarquements de maquereau et de chinchard ont connu cette année une augmentation très importante en poids (+70% et +60% respectivement) par rapport à l'année précédente.

Pêcherie thonière
Les principales espèces de thonidés exploitées par les pêcheurs marocains sont :

- le thon rouge;
- l'espadon;
- les thonidés mineurs (listao, bonite, melva, etc.) ainsi que bien d'autres espèces.

En 2011, la flottille exploitant les thonidés et espèces apparentées était composée d'environ 229 palangriers côtiers et d'une centaine de barques qui ciblent l'espadon et le thon rouge dans le Détroit de Gibraltar et dans la mer d'Alboran Sud.
Les palangriers et les barques ont respectivement un TJB moyen de 18 et 2 Tx. Ces unités ont une taille moyenne d'environ 14 m, une puissance motrice moyenne de 189 CV et un TJB moyen de 24 tonneaux. La palangre, le filet maillant dérivant et la ligne à main sont les principaux engins de pêche utilisés pour la pêche de ces espèces. Les thonidés mineurs sont notamment capturés par les palangriers et les senneurs côtiers. La production totale des thonidés et espèces apparentées en Méditerranée s'élève en 2011 à environ 1569 tonnes avec une valeur totale estimée à plus 87 Millions de Dhs. L'espadon constitue 65% de la production en poids, suivi par les petits thonidés et le thon rouge qui représentent respectivement 18 % et 12 % de la production totale des thonidés et espèces apparentées.
Les principales zones de pêche de l'espadon sont situées dans le Détroit de Gibraltar et ses zones d'influence. Les principaux ports de débarquements de cette espèce sont Tanger, Nador, Al- Hoceima. Cette espèce est capturée par la palangre dérivante et le filet maillant dérivant.
Il est à rappeler qu'à compter du 1er janvier 2012, l'utilisation des filets maillants dérivants pour la pêche est strictement interdite.

Pêcherie démersale
L'exploitation des espèces démersales se fait au moyen de chalutiers (123 unités) ayant une puissance motrice moyenne de 369 CV et un TJB moyen de 55 Tx, par des palangriers (229 unités) et par 2907 barques artisanales dotées d'une puissance motrice moyenne de 15 CV.
Les principales espèces ciblées par ces pêcheries sont le merlu, le grondin, la sole, le pageot acarné, le poulpe, la dorade, le rouget de vase, la crevette rose, la bogue, la seiche, le pageot commun et le merlan bleu.

La production en 2011 des espèces démersales est composée de poissons démersaux, céphalopodes, crustacées et coquillages s'élève à environ 10 564 tonnes pour une valeur d'environ 300 millions de dirhams.

Mesures d'aménagement des pêcheries

Parmi les principales mesures :

- Limite de la taille minimale : Interdiction de la capture des poissons sous-taille, fixant la taille marchande minimale des espèces pêchées dans les eaux marocaines.
- Limitation de l'effort de pêche : les investissements en matière de construction navale ont été suspendus depuis 1992 ;
- Le contrôle des activités de pêche : un contrôle strict s'étend à l'ensemble de la filière pêche ;
- La mise en place de structure pour l'utilisation obligatoire, à compter du 10 octobre 2011, des systèmes de suivi et de transmission de données par satellite (VMS) à bord des navires ayant un tonnage supérieur à 2 unités de jauge brute.
- Recoupement avec les services du Ministère de l'Économie et des Finances afin de vérifier l'authenticité des quantités déclarées à l'exportation ;
- Mise en place du plan d'aménagement de la pêcherie des petits pélagiques ;
- Mise en place du plan d'aménagement de la pêcherie crevettière ;
- Mise en place du plan d'aménagement du thon rouge;
- Mise en place du plan d'aménagement des algues;
- mise en place du plan d'aménagement du poulpe;
- Dispositions particulières et restrictions pour la pêche au corail
- Publication de la loi 19-07 interdisant les filets maillants dérivants et ses textes d'application ;
- Nouvelle stratégie du Département de la Pêche Maritime (HALIEUTIS):

Cinq instruments ont été créés/ en cours de création à savoir:

- le Comité national de la pêche:
- une Agence nationale pour le développement de l'aquaculture (ANDA)
- un Centre de valorisation des produits de la mer
- un Observatoire de l'emploi du secteur halieutique; et
- un Fonds pour l'ajustement et la modernisation de la pêche qui sera consacré à la restructuration de la flotte de pêche au Maroc.
- Certification et traçabilité des captures ;
- renforcement du contrôle des activités de pêche ;
- Conservation des requins : interdiction de ciblage de ces espèces

Évaluation des stocks en Méditerranée

<u>Sardine</u>

Les chercheurs du Maroc et de l'Espagne ont réalisé un essai sur une évaluation commune du stock de la sardine en Mer d'Alboran, considéré comme stock partagé. Les résultats préliminaires montrent que l'effort de pêche est concentré sur des adultes d'âges 3 et 4. L'analyse du rendement par recrue montre que le stock se trouve en état de surexploitation, avec une valeur de $F0.1 = 0.68$.

<u>Dorade rose</u>

Le stock de la dorade rose est un stock partagé entre le Maroc et l'Espagne, une évaluation conjointe était réalisée entre les deux pays.

Les modèles utilisés sont: LCA, VPA et l'analyse DCAC (NAAO logiciel). Les données utilisées sont : les fréquences de tailles collectées entre 2009 et 2011 par les deux pays et les paramètres biologiques estimés par l'IEO (Espagne) en 2006.

Les points de références estimés sont:

	F moyen 2009-2011	F0.1	FMax	F 40 %	DCAC
F	0.194	0.113	0.295	0.120	
Captures (tonnes)	523	473	538	481	
					331

Le niveau actuel de la mortalité par pêche (F_{actuel}=0,19) est plus élevé que les valeurs calculées pour les points de références approximatifs du F_{MSY} (F0.1 ou F40% =0,12). Donc, Il est recommandé la réduction du niveau d'effort actuel pour ajuster la mortalité par pêche à des niveaux proches des valeurs de durabilité.

Crevette rose

Une évaluation conjointe était réalisée entre le Maroc, l'Espagne et l'Algérie, en considérant que le stock de la crevette rose est partagé au niveau de la mer d'Alboran (l'ensemble de la Méditerranée marocaine). Deux modèles sont utilisés pour les analyses par pays, il s'agit de LCA et VPA, ainsi que le modèle "Biodyn" un modèle de production basé sur le modèle de Schaeffer, utilisé pour l'ensemble de la région.

Les analyses ont montré que le stock est surexploité, la mortalité par pêche dépasse de 2.6 fois la mortalité recherchée.

Merlu européen

Une tentative de réaliser une évaluation conjointe au niveau de la mer d'Alboran, a montré que le niveau actuel de la mortalité par pêche est de F_c = 1.148, qui est plus élevé que le $F_{0.1}$ = 0.48, ce qui indique que le stock est surexploité.

Statistiques et système d'information

Le système statistique englobe des données collectées par l'Institut National de Recherche Halieutique -INRH-, il s'agit notamment des données biologiques des principales espèces exploitées (campagnes scientifiques en mer et échantillonnage biologique des débarquements) et des données socioéconomiques de l'activité de pêche (des enquêtes de terrain). Les données sur l'exploitation et la commercialisation sont collectées d'une manière quasi exhaustive, par les administrations des pêches maritimes (Département des pêches maritimes – DPM - et l'Office National des Pêches - ONP).

Un Système d'Information Halieutique est développé par l'INRH, en collaboration et coordination avec l'ONP et le DPM, afin d'optimiser l'usage scientifique de la masse de données disponible.

Programmes de recherche en cours

Les ressources halieutiques en Méditerranée marocaine font l'objet d'un suivi scientifique par les centres régionaux de l'INRH basés à Tanger et à Nador, à travers la mise en place des programmes de recherche sur la biologie des principales espèces, les évaluations des stocks de ces espèces, les études d'interaction entre l'activité de pêche et son environnement et les études socio-économiques des principales activités de pêche.

Le Maroc est activement impliqué au niveau des organismes régionaux des pêches de la Méditerranée (CGPM et ICCAT), à travers la mise en œuvre de plusieurs évaluations conjointes des stocks partagés.

Études sociales et économiques

Les principaux travaux scientifiques réalisés en 2011 et en cours de réalisation, ont concerné :

- Etude socio-économique de la pêcherie sardinière
- Analyse socioéconomique du secteur de la pêche artisanale

Études sur l'environnement marin

Aperçu sur les échouages des cétacés et tortues marines

Les échouages des cétacés et tortues marines, sont principalement observés en Méditerranée occidentale. Le recensement de ces échouages dans la région Tanger - Jebha montre que ce phénomène touche deux ordres d'animaux, 84 % de cétacés et 16 % de tortues marines.

Neuf espèces de cétacés ont été trouvées parmi les échouages, il s'agit du : petit rorqual (*Balaenoptera acutorostrata*), rorqual commun (*Balaenoptera physalus*), dauphin bleu et blanc (*Stenella coeruleoalba*), grand dauphin (*Tursiops truncatus*), globicéphale noir (*Globicephala mela*) dauphin commun (*Delphinus delphis*), baleine à bec de Cuvier (*Ziphius cavirostris*), faux orque (*Pseudorca crassiden*) et l'orque (*Orcinus orca*). Le dauphin bleu et blanc reste l'espèce la plus échouée dans cette région avec un pourcentage de 33% du total des cétacés échoués, en raison notamment de son abondance élevé au Méditerranée.

Par contre, seules deux espèces de tortues marines y sont rencontrées, il s'agit notamment de la tortue caouane et de la tortue-luth, avec une prédominance de cette dernière.

Les deux principales causes de ces échouages sont : l'intensification du trafic maritime et l'activité de pêche utilisant les filets dérivants (interdits à partir du premier janvier 2012).

Recherches Futures

Les programmes de recherches futures concernent les thèmes suivants :

- Évaluation conjointe des stocks considérés partagés au niveau de la mer d'Alboran, entre le Maroc, l'Espagne et l'Algérie. Il s'agit des stocks de petits pélagiques (sardine et anchois), de la dorade rose, du merlu et de la crevette rose;
- Études socioéconomiques des principales pêcheries méditerranéennes, en particulier la pêcherie des petits pélagiques;
- Suivi et analyse de l'implantation d'une aire marine protégée;
- Etude de la mise en place d'un système de suivi communautaire de l'activité de pêche artisanale au niveau du Parc national d'Al Hoceima;
- Etude d'impact entre les mammifères marins et l'activité de pêche.

ROMANIA/ROUMANIE

Description of the fisheries

Description of the fishing grounds and GSA

The Romanian fishing fleet was operating in the area of competence of the Regional Fisheries Management Organisations - GFCM Area 37 – Mediterranean and Black Sea, Sub-area 37.4., Division 37.4.2, GSA 29.

The Romanian fishing area is comprised between Sulina and Vama-Veche; coastline extends for over 240 km, which can be divided into two main geographical and geomorphologic sectors:

- 1/ the northern sector (about 158 km in length) lies between the secondary delta of the Chilia branch and Constantza, constituted of alluvial sediments;
- 2/ the southern sector (about 85 km in length) lies between Constantza and Vama-Veche characterised by promontories with active, high cliffs, separated by large zones with accumulative beaches often protecting littoral lakes.

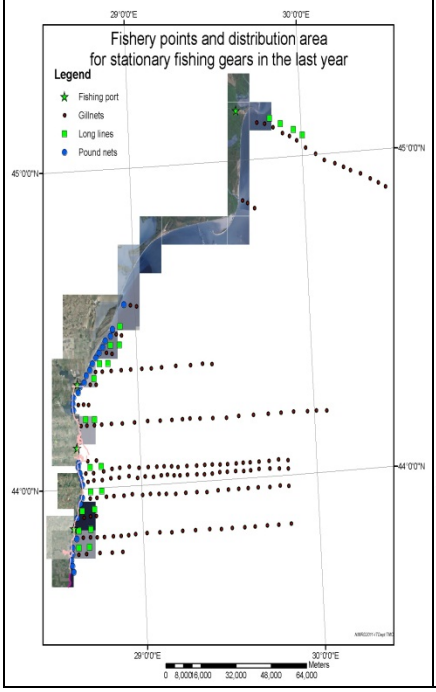
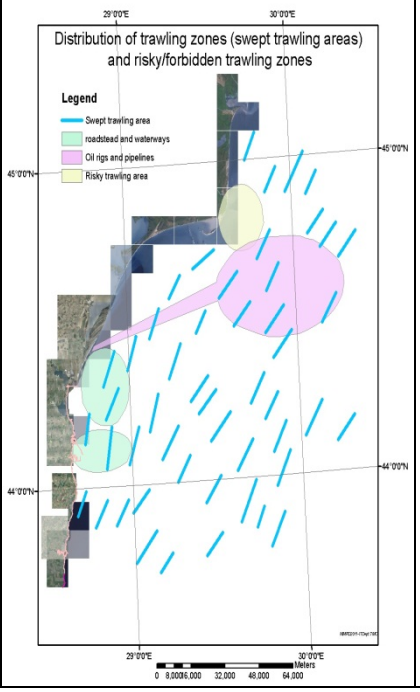
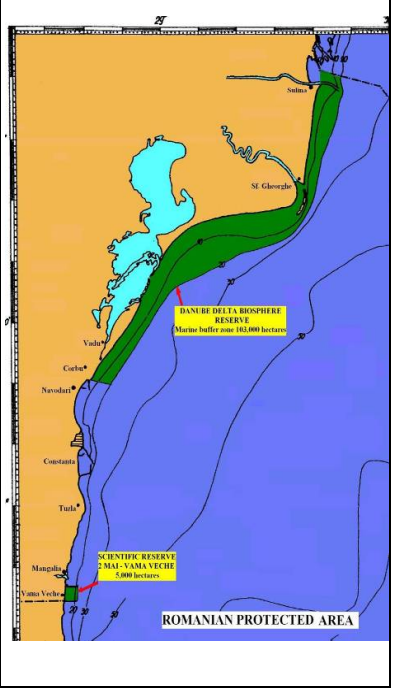
The distance from the sea shore to the shelf limits (200 m depth) varies from 100 to 200 km in the northern sector and to 50 km in the southern one. The submarine slope of the shelf is very gentle in the north, while in the southern sector the slope increase very quickly (Fig 1; 2).

The shallow waters up to 20 m depth of the northern part are included in the Biosphere Reserve of Danube Delta (declared through the Low no. 82/1993).

The marine zone buffer zone of the "Danube Delta" - Biosphere Reserve constitutes a traditional zone for spawning and feeding for transboundary species as well as a passage route for anadromous species (sturgeons, Danube shad).

In the South part of littoral is located also the Vama Veche - 2 Mai reserve with the surface of 5,000 hectares (Fig.3).

The marine Reserve “2 Mai - Vama Veche” is an area with a high diversity of the biotopes and biocoenosis, being settled on the migration routes of the main pelagic and benthic fish and marine mammals.

Figure 1	Figure 2	Figure 3
		

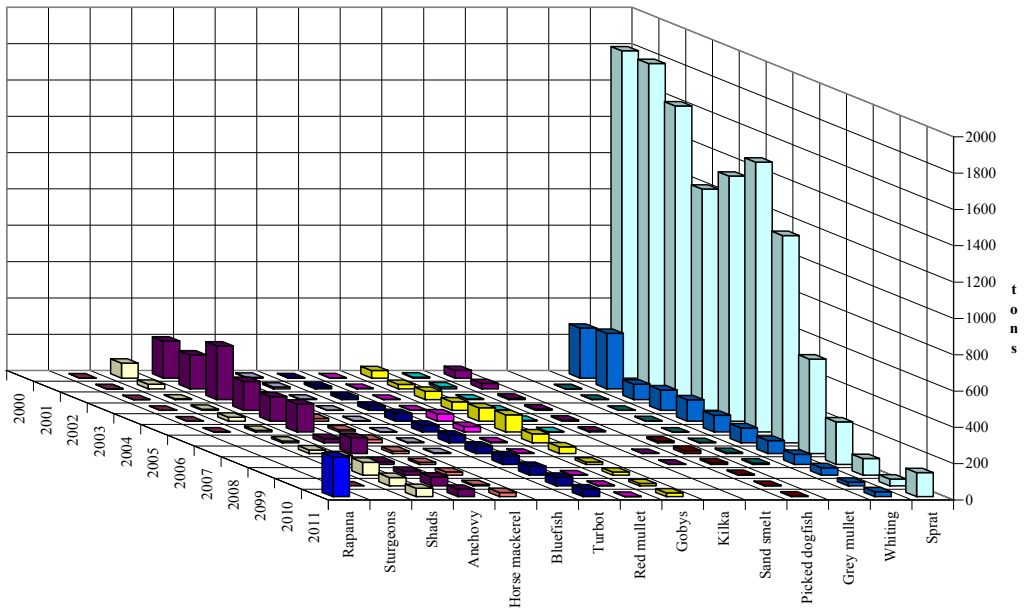
Total landings by main targeted species

In the coastal zone of the Romanian marine sector with small depth, fishing with fixed gear is characterized by the concentration of activity mainly in the first three- four months of the season (April-July), when usually the turbot migrates to the coastal area for reproduction and other species migrate for feeding. In generally, total fishing season being of about eight months. The capture level and the level of fishing productivity differs from one year to another, depending on the fishing effort (number of pound nets, number of turbot nets and effective fishing days), and also depends on the evolution of hydro climatic conditions and at last but not least, the state of fish stocks.

The structure on species in the catches mirrored only partly the composition of Black Sea ichtyofauna from the Romanian sector, because the type of gear conditions the ratio between the different fish species. As a general rule, the pelagic species, small-sized and short life cycle keep continue to be dominant in catches.

During 2000-2011 periods, the level of total catch declining from 2476 tons to 443.9 tons (2008), 330 tons (2009), 258 tons (2010) and 568 tons (2011) official registered. In 2011 the total catches increased compared to the previous period with 219 tons representing the rapana and mussels catches. The main species in the catches have been: rapana (218 tons); sprat (133 tons); turbot (43 tons); anchovy (40 tons); horse mackerel and gobies with 20 tons (Fig. 4).

Figure 4. Total catches and structure on species at the Romanian littoral in the period 2000-2011



Fleet

Year after year the activity of active fishing decreased gradually to the point where, in 2010 from 20 vessels with LOA between 24-40 m registered in the last years in the Fishing Fleet Register, only one vessel was active for a very short period of time.
In 2010, the Romanian fleet capacity at the Black Sea was of 476 vessels registered in the FFR at the beginning of the year, structured on length classes as following:
54 boats smaller than 6m; 413 boats in the length class 6-12m, 3 boats in the length class 12-18m, 4 vessels in the length class of 18-24m and 2 vessels in the length class 24-40 m. Unfortunately, small part of this fleet was active (206 boats/vessels). The situation was repeated in 2011, of total number of 488 boats, only 200 were active (Table 1 and 2). Among active boats, most of them were less than 12 m (197) and have activated with gill nets, long lines and hand lines. Only three vessels have been longer 18m and activated one with trawl and two with gillnet (Table 1).

Table 1. Segmentation of the Romanian fleet in 2011 – active vessels

Length class LOA (m)		< 6 m	6 – 12 m	12–18 m	18-24m	24-40m	>40m	Total
Total vessels registered		56	425	3	2	2	-	488
Active vessels		41	156		1	2	-	200
Midwater otter trawl	Mixed demersal and pelagic species	-	-	-	-	1	-	1
Pound nets	Small pelagic fish Demersal fish	2	15	-	-	-	-	17
Set gillnets	Pelagic and demersal species	28	93	-	1	1	-	123
Artisanal fisheries (hand lines, set long lines, beach seine)	Other finfish	11	48	-	-	-	-	59

Table 2 Segmentation of the Romanian fleet in 20111 – inactive vessels

Length class LOA (m)		< 6 m	6 – 12 m	12–18 m	18-24m	24-40m	>40m	Total
Total vessels registered		56	425	3	2	2	-	488
Inactive vessels		15	269	3	1	-		288
Midwater otter trawl	Mixed demersal and pelagic species	-	-	-		-	-	-
Pound nets	Small pelagic fish Demersal fish	2	-	-		-	-	2
Set gillnets	Pelagic and demersal species	7	169	3	1		-	180
Artisanal fisheries (hand lines, set long lines, beach seine)	Other finfish	6	100	-	-	-	-	106

This fleet is in poor conditions and needs improvements of safety on-board, working conditions and facilities for landing. The fisheries of this small fleet are typically artisanal type as multi-species and multi-gear fisheries, **fishermen switching from one gear to another several times throughout the year** (in the next table, we can see that the same boat was working with two or three types fishing gear).

Table 3. Romanian fleet composition and key indicators in 2011

	Vessels	Gross Tonnage (GT)	Kilowatts (kW)	Number employed	FTEs	Days at sea (1000)
INACTIVE	288	711	3,389			
VL0006	15	11.7	203			
VL0612	269	290	1880			
VL1218	3	46	411			
VL1824	1	75	262			
VL2440	-	-	-			
PG (vessels using passive gears, vessels<12m)	336	841	10559	400	334	2.26
VL0006	40	27	545	61	49	0.202
VL0612	296	814	10014	339	285	2.058
PGP(Vessels using polyvalent passive gears only 18-24m	1	87	331	7	6	0.015
PMP (vessels using passive and active gears)	11	16	670	34	23	0.232
VL0006	4	3.45	31	8	6	0.076
VL0612	7	12.14	639	26	17	0.156
PMP (vessels using passive and active gears) 24-40m	1	129	442	7	7	0.050
TM (pelagic trawlers)	1	136	331	6	5	0.002
VL2440	1	136	331	6	5	0.002
Grand Total	350	1209	12333	454	375	2.559

Status of stocks of priority species

Assessment methods

The swept area method is used for assessment of the biomass of fishing agglomerations of sprat, whiting, turbot, dogfish based on the statistic processing of productivity data obtained in sampling trawling and industrial trawling;

Table 3. The biomass (tons) of main fish species at Romanian littoral

Year	Species			
	Sprat	Turbot	Whiting	Dogfish
2008	61916	2355	8694	883
2009	60059	1377	11846	2509
2010	59627	1148	20948	13051
2011	60000	1495	26171	1619

Status of the statistics and information system

Fisheries data obtained in the different projects by NIMRD are incorporated in database of institute. Reports and data are transmitted to Romanian NAFA in the frame of National Data Collection Program. In the same Program, fisheries data are uploaded in JRC data base.
In parallel way, National Fisheries Report prepared in agreed format is prepared and transmitted annually to the Black Sea Commission.
Full information on capacity indicators is available through the FFR. Therefore only this information source has been used. So, the data have been collected in an exhaustive way by NAFA inspectors from the logbooks, for vessels and coastal logbooks, for small boats. This method ensures 100 % coverage of the population and maximum level of quality.
With the help of the NAFA statistics/collecting data system are performed crosscheck verifications between the logbooks, declarations of origin and (first) sales notes of fish and other aquatic organisms and reports. As described above mentioned, the exhaustive method used ensure the maximum quality level of collected data.

Status of research in progress

Ministry of Education

Status of research in progress
- PN 09320206 Reducing the impact of marine bioresources exploitation by developing eco-efficient solutions
- National Data Collection Program. NAFA/EC-DG Mare
- PN II - Capacity, Module III: Investigation and applied studies of the ecosystem approach to fishery in the Ionian Sea (Greece) and Black Sea (Romania) Romania-Greece bilateral cooperation Contract no. 575/20.06.2012
- PN II - Capacity, Module III: Quality Intelligent Sensing and Information Processing technology for fish product during cold chain management, contract no. / (Bilateral Romania - China)
- CE/CBC Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries – (SRCSSMBSF)
- FP7/KBBE Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (**CREAM**) / contract no. 265648/22.01.2011.

Status of the social sciences studies in progress
- PN 09320207 Obtaining the updated information to expand the European ecological network Natura 2000 (Special Areas of Conservation) in the Romanian marine
- CE / CCC Industrial Symbiosis Network for Environment Protection and Sustainable Development in the Black Sea Basin – SymNET

Marine environmental studies in progress
- PN 09320103 The 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 Characterization of the benthic and planktonic communities on the Romanian continental shelf
- PN II- ERA NET Molecular approaches for rapid and quantitative detection of cyanobacteria and their toxins from coastal Black Sea (MARCY)/ Contract no. BS/7-050/26.09.2011
- PNII-ERA.NET: Radiation background of Black Sea coastal environment – RACE, Contract nr. BS7-049/P2/2011, 3992/30.09.2011

- PN II - Partnerships CACM Type 2- 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 (ECOMAGIS)
- NATO: Bio-optical characteristics of the Black Sea / Contract no. SFP 982678/12.12.2008
- CE/PC7: Options for Delivering Ecosystem-based of marine management (ODEMM) / Contract no. 244273
- Application for the Western Black Sea (Ocean Colour) / Contract no. 4000102243/10/NL/HE
- CE/PC7: Pan – European infrastructure for Ocean & Marine Data Management (SEADATANET II)/
- CE / PC7: Development and pre-operational validation of upgraded GMES Marine Care Services and capabilities (MyOcean II)/ grant agreement no. 283367/12.12.2011
- CE / PC7- OCEAN-2011: Policy – oriented Marine Environmental Research for the Southern European Seas (PERSEUS)/ grant agreement no. 287600/21.12.2011
- CE / PC7 -OCEAN-2011: A Coast to Coast NETwork of protected areas: from the shore to the deep sea (COCONET), Grant Agreement no. 287844/02.2012
- CE/DG Environment: MSF (Marine Strategy Framework Directive) Guiding Improvements in the Black Sea Integrated Monitoring System (MISIS), contract nr. 07.020400/2012/616044/SUB/D2

Involvement in activities of FAO Regional Projects

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

Management measures

Actual national fisheries regulatory framework
For the fishing resources management the following laws were adopted:
- Law on the Constitution of the Biosphere Reserve "Danube Delta" No. 82/20.11.1993;
- Law on Environmental Protection No. 137/1995;
- Law on Fishing Fund, Fishery and Aquaculture No. 23 /2008;
- Order No. 179/1 June 2001 regarding the Registering and transmission of the data related with the marine fishing activity;
- Order No. 262/16 July 2001 regarding the Preparation of the Directory of Vessels and Fishing boats;
- Order no. 422/30 October 2001 for approval of the Regulation on the conditions for development of the commercial fishing activities in the Black Sea waters;
- Annual Order on the Fishing Prohibition (753/2008);
- Order no. 344/2008 for approval of the operational and functional manner of fishing vessel and boats file;
- Order no. 342/2008 on minimal size of the aquatic living resources;
- Order nr. 449/2008 on technical characteristics and practice conditions for fishing gears used in the commercial fishing.

Institutional framework
The overall responsibility for fisheries policy in Romania falls under authority of the National Agency for Fisheries and Aquaculture (NAFA), public institution subordinated to the Ministry of Agriculture and Rural Development.
This Agency shall draw up the strategy and legal framework for fisheries in Romania, and it shall carry out the implementation of technical measures and the control of regulations in fisheries and aquaculture.
Fishing and aquaculture entitlements are managed similar for inland and marine fisheries activities by NAFA.

The National Sanitary-Veterinary and Food Safety Authority provide the legal framework and development of the specific regulations for the activities in the veterinary and food safety field. This authority supervises and controls the implementation and observance of the sanitary-veterinary and food safety norms.
Ministry of Environment and Waters Management draws up specific legal acts regarding environment protection, waters management as well as authorization procedures for all activities, including fisheries enterprises.

Management system

- Vessel licensing
- Fishing authorisation
- Fishing Vessel Register
- Quota System

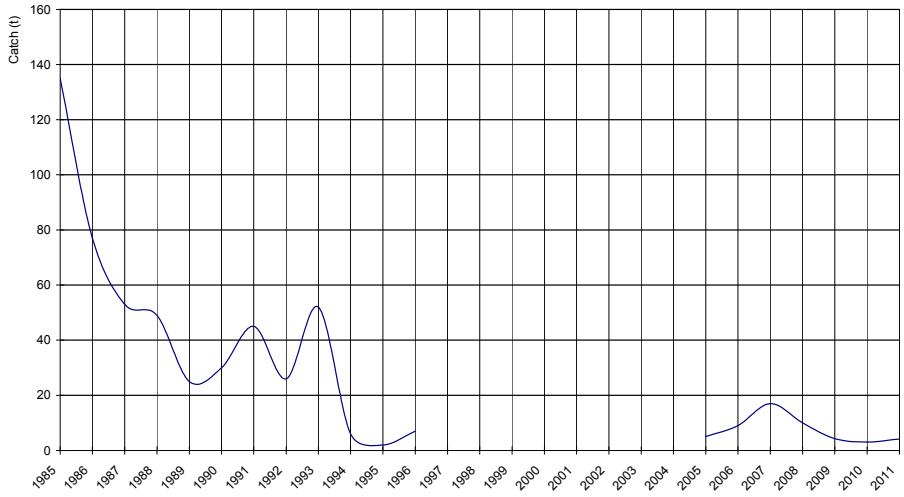
With regard to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area*
DG MARE launched the Call for Tenders No. Mare/2011/16 - Studies for carrying out the Common Fisheries Policy - "Adverse Fisheries Impacts on Cetacean Populations in the Black Sea"
The project was won by a consortium of organizations from Bulgaria, Romania, Turkey and Ukraine in coordination Mac Alistar Elliot &Partners company. Now the project is ongoing.
The objective of the contract is to provide an analysis of the historical and current status of cetacean populations in the Black Sea and qualitative and quantitative assessments of their by-catch in Black Sea fisheries by fishery and fishing gear. In addition, the contractor shall provide recommendations on mitigation measures for the fisheries identified to have the highest adverse impacts/by-catch rates.
The scientific information and advice are sought to promote possible management actions at international level, based on sound scientific knowledge shared among the Black Sea riparian countries. This information and advice will further support implementation of the Common Fisheries Policy while integrating environmental concerns and ensuring coherence with the Marine Strategy.
Also, at national level through PN 09320206 "Reducing the impact of marine bioresources exploitation by developing eco-efficient solutions" Ministry of Education funded some activities related to assessment of the actual state of cetaceans populations at Romanian littoral and establish the methods for determining conservation status of the dolphins.

Table Cetacean accidental catches situation registered at the Romanian littoral in the last 11 years

Year	SPECIES			TOTAL
	Phocoena phocoena	*Delphinus delphis*	*Tursiops truncatus*	
2001	40	2	1	43
2002	20			20
2003	7			7
2004				-
2005				-
2006	20	2		22
2007	70	1		71
2008				-
2009				-
2010	15		2	17
2011	54	-	-	54

With regard to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*
Romania signed the MoU (Memorandum of Understanding) on migratory sharks, with the occasion of the tenth meeting of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals, held in 2011 in Bergen, Norway.
The objective of this Memorandum of Understanding is to maintain a level of favourable conservation of migratory sharks, based on the latest scientific information available, given the socio-economic value of these species.
First Meeting of Signatories to the Migratory Sharks Mou has been in *Bonn,* Germany, 24-27 September 2012. The main realization of this meeting was the Conservation Plan.

Fig. Spiny dogfish catches at Romanian littoral



Research suggestions for consideration by SAC

Research regarding distribution and abundance of the two main species in the Black Sea: turbot and dogfish.

SLOVENIA/SLOVÉNIE

Description of the fisheries

Description of the fishing grounds and GSA

The Slovenian fishing vessels are carrying out fishing activities in the area GSA 17.

Total landings by main targeted species (year 2012)

Species	Landing [kg]
Whiting *(Merlangius merlangus)*	80.625
Anchovy *(Engraulis encrasicolus)*	43.629
Mullets (*Mugilidae*)	31.761
Musky octopus *(Eledone moschata)*	25.448
Sardine *(Sardina pilchadus)*	18.344
Common pandora *(Pagellus erythrinus)*	16.114
European squid (*Loligo vulgaris*)	12.407
Golden grey mullet (*Liza aurata*)	11.407
Gilthead sea bream *(Sparus aurata)*	10.911
Common cuttlefish (*Sepia officinalis)*	10.103
Common sole *(Solea solea)*	8.502
Other	59.679
TOTAL	**328.930**

Fleet

Fishing vessels	Number	LOA [m] (average)	kW	GT
Minor gear without engine < 6 m	8	4,58	0,00	5,87
Minor gear with engine < 6	73	4,77	448	69,19
Minor gear with engine 6-12 m	65	7,55	3299	201,57
Trawlers 6-12 m	9	10,69	1600	67,14
Trawlers 12-24 m	8	14,77	1341	155,75
Trawlers > 24 m	0	0	0	0
Purse seiners 6-12 m	2	9,00	308	12,62
Purse seiners 12-24 m	4	13,98	409	43,56
Other	6	11,71	1015	69,01
TOTAL	**175**		**8420**	**624,71**

The data of the Slovenian fishing fleet is referring to the date of 1 January 2013.

Status of stocks of priority species

In the case of Slovenia five species can be considered as priority species: sardine (*Sardina pilchadus*), anchovy (*Engraulis encrasicolus*), whiting (*Merlangius merlangus*), cuttlefish (*Sepia officinalis*), and musky octopus (*Eledone moschata*). The stock assessment for sardine and anchovy has been performed recently in the framework of AdriaMed project for GSA 17. Taking in consideration relatively small part of Adriatic Sea where Slovenian fisherman are active and relatively small part of

shared stocks affected by our fishery all fish stock assessments should be done jointly on the level of GSA 17.

The available information for GSA 17 (Northern Adriatic Sea) is part of the GFCM Report of the Working Group on Stock Assessment of Small Pelagic Species, Split, Croatia, 05-09 November 2012 and has been confirmed in the 14th session of the SCSA, Rome, Italy, 18-20 February 2013.

Stock	Stock status	WG management advice	SC comments
Sardine *(Sardina pilchardus)*	Exploitation rate is higher than the Patterson's reference point (E=0.52). Fully exploited with no room for further expansion Fishing mortality should not be allowed to increase.	WG recognised that spatial distribution of shared stock of sardine is not limited to GSA17 area only, but it is extended in GSA18 area also. Therefore, WG suggest that future assessments try to take into account combined data from these two GSAs.	The SC endorses the advice. The SC highlights that there has been a strong increase in F against previous recommendations from the SAC. The SC recommends that biomass reference points should be revised. As this is a multispecies fishery, advice should be done together with anchovy in GSA 17.
Anchovy *(Engraulis encrasicolus)*	Moderate exploitation rate (E = 0.4). Sustainably exploited. Fishing mortality should not be allowed to increase	WG recognised that spatial distribution of shared stock of anchovy is not limited to GSA17 area only, but it is extended in GSA18 area also. Therefore, WG suggest that future assessments try to take into account combined data from these two GSAs.	The SC endorses the advice. The SC highlights that there has been a strong increase in F against previous recommendations from the SAC. The SC recommends that biomass reference points should be revised. As this is a multispecies fishery, advice should be done together with sardine in GSA 17

Status of the statistics and information system

In Slovenia there are three information systems in place which will be combined together in line with the EU Control Regulation (Council Regulation (EC) No 1224 /2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy). The InfoRib is and will remain the main system. It covers all the relevant fisheries data. The second is the VMS system which covers the VMS data and the third is the inspection information system Aquaspec, where all the inspection data are in place. In the future all the three information systems will have to be interconnected pursuant to the requirements of EU and other legislation and to gain better control over fisheries activities.

InfoRib is the centralized information system which contains all the relevant data on fisheries in Slovenia. In the system there are the following modules: 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.
For the future, a lot of fields still remain open where upgrading will have to take place in order to meet the legislation requirements. The next step is the implementation of the national plan for the validation system in line with the Council Regulation (EC) No 1224/2009. This will bring the urgency of the upgrading of the system in the field of the even better cross-checking of the VMS and InfoRib

system, but also of the logbooks, landing declarations and the First Sale Module. The big project will be the cross-checking of the inspection information system Aquaspec, InfoRib and VMS system.
The future will be greatly marked by the building of the Electronic Logbook Module which will also have to be connected (for the purpose of cross-checking) with the other parts of the InfoRib.
Also the yearly maintenance of the system is taking place. This covers all the preparation work for different reports, for national and international end users.

Status of research in progress

In the framework of National Program of the Republic of Slovenia for the collection and management of data, Slovenia is performing two research surveys at sea: MEDITS and MEDIAS.
MEDITS surveys have been performed from 1996 on two stations in Slovenian Sea. Samples have been taken with three rented Italian fishing vessels and from 1999 with Italian research vessel Andrea. All biological material has been elaborated on Fishery Research Institute of Slovenia. We are also performing data aggregations according to the MEDITS protocol.
MEDIAS surveys have been performed since 2007. The survey in Slovenian waters is a part of joint North Adriatic Echo-survey performed by Italian scientists from CNR ISMAR of Ancona with the research vessel G. Dallaporta each year, usually in September or October. The survey is performed during one day through echo-sounding and two samplings with pelagic trawl net.
In the framework of FAO-AdriaMed project the SOLEMON survey is performed in Slovenian waters by Italian scientists from CNR ISMAR of Ancona with the research vessel G. Dallaporta.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

In the economic field Slovenia is implementing three studies on the basis of Council Regulation (EC) No 199/2008 and of Appendix VI to the Commission Decision. The studies are:
1. Module of evaluation of the fishing sector;
2. Module of the evaluation of the economic situation of the aquaculture sector;
3. Module of the evaluation of the economic situation of the processing industry.

Slovenia has complete data for 2011 on fishing sector, processing industry and aquaculture sector. The 2012 data for all three sectors will be available in the first half of 2014.

Marine environmental studies in progress

In October 2010 we have started a 3-year survey, determining biological and ecological characteristics and seasonal dynamics of five commercially important fish species in the Portorož Fisheries Reserve. With this research we wish to gain scientific basis for fisheries management and suggest a non-destructive method for monitoring wild fish populations inside the Reserve.

Involvement in activities of FAO Regional Projects

FAO AdriaMed

- Stock assessment for some species, e.g. Sardina pilchardus, Engraulis encrasicholus, Squilla mantis, Solea solea.
- Cooperation in the framework of SOLEMON project.

Management measures

Management measures in the Slovenian sea follow the Council Regulation (EC) No 1967/2006 which contains principles and rules relating to the conservation and management of fishery resources in the

Mediterranean Sea. Slovenia recently submitted to the Commission last draft of the management plan "Management plan of the Republic of Slovenia for certain fisheries within its territorial waters" (hereinafter FMP – Fisheries Management Plan) relates exclusively to commercial marine fishing in Slovenia's territorial seas. In accordance with the first paragraph of Article 19 of Council Regulation (EC) No 1967/2006, the FMP addresses the following types of fishing gear: trawl nets, boat seines, shore seines, surrounding nets and dredges. Moreover, the FMP contains an analysis of the entirety of the commercial marine fishing in Slovenian territorial waters as it includes also an analysis of fishing in Slovenian territorial waters using passive fishing gear. The draft of the FMP deals also with the following types of fishing gear: pots and traps, fyke nets, driftnets, set gillnets, trammel nets, hand lines and pole lines for targeting cephalopods, hand lines and pole lines for targeting finfish, and set longlines.

Slovenia sent the first draft of the FMP to the Commission in September 2007, followed by supplemented drafts of the FMP in April 2008 and October 2009; these were supplemented in response to the opinions produced by the Scientific, Technical and Economic Committee for Fisheries (STECF) at its plenary sessions held in November 2007 and July 2008. An updated draft of the FMP was submitted to the Commission in August 2011 which was supplemented in line with the opinion adopted by the STECF at its plenary session held in November 2009. The most recent draft of the FMP is updated as a result of the technical meetings that were held between the representatives of Commission and Slovenia in September and December 2012. It was submitted to the Commission in December 2012 and once again in February 2013 when it was slightly amended.

The objective of the Fisheries Management Plan is to adjust the fishing capacities and fishing opportunities for those fishing vessels the stocks of whose target species necessitate their protection and conservation. Management measures are also required for those groups of fishing vessels which target species whose stock levels are not known at the regional level and where the spatial opportunities for fishing and the number of fishing vessels involved in targeting these species area necessitate a restriction on the fishing effort of these vessels.

Pelagic fish species were predominant in the landed catch of Slovenian fishermen in period 2005-2010, with the bulk of pelagic landings being made up of sardine and anchovy. The majority of the landings of sardine and anchovy were made by purse seines (PS) and midwater pair trawls (PTM).
In addition, owing to Slovenia's limited sea fishing area, the additional limits placed on it (as a result of navigation lanes, reserves, conflict with other types of fishing gear, etc.) and the absence of a stock assessment for demersal fish in the Northern Adriatic. Measures to adjust the fishing effort have also been drawn up, in the form of a plan, for those vessels using the set gillnets (GNS), trammel nets (GTR) and bottom otter trawls (OTB).

To achieve the objective of adjusting fishing capacities and fishing opportunities, we are proposing the use of various management measures to reduce the fishing effort, as follows:

- *Temporary suspension of the granting of commercial fishing licences* (measures to be implemented in 2012–2013).
- *Review of commercial fishing licences* (measures to be implemented in 2013)

Under the national marine fisheries legislation in force, commercial fishing licences are granted for an indefinite period; a licence remains valid regardless of whether a vessel is active. Such vessels represent a 'latent' fishing capacity that can be activated at any time and has an important impact on fishing opportunities.

- *Reduction in the fishing effort by implementation of a permanent and temporary cessation of* fishing activities (measures to be implemented in 2012–2013).

To achieve the objective of sustainable use of fishery resources and protection of the marine ecosystem, other marine fishery management measures may be implemented, in addition to those proposed, particularly technical measures.

In the section covering an analysis of fishing using purse seines (PS), Slovenia submits a request for the derogation regarding the size of the purse seines (PS) targeting mullets. In the part dedicated to the analysis of bottom otter trawls (OTB), request for the derogation regarding the use of this fishing gear at the distances between 1,5 - 3 miles from the coast is introduced. The third and final section, which follows the conclusions, contains the management plans, which are drafted in such a way that they: (1) incorporate a cautious approach to fisheries management; (2) cover a period of several years and set out the anticipated timeframes for achieving the set objectives; (3) direct the set objectives towards the sustainable exploitation of stocks and keep the impact of fishing activities on the marine ecosystem at a sustainable level.

Proposals for future research programmes

No proposals.

SPAIN/ESPAGNE

Description of the fisheries

Spanish fleet operates mainly within four GSAs (excluding GSA2, which only supports a deep trawl fishery around Alboran Island). In each of them, different types of fishing grounds are exploited from shallow to deep waters by trawl, purse seine, long line and artisanal fleets The total number of fishing vessels included in the Fleet Register for the Mediterranean at date 31/12/2011 was 2.972, with a mean length of 14.48 m, a total GT of 61.406,65 and a total power of 249.587,48 Kw. Most of the fisheries are multi-specific, especially the trawl fishery which catches a great diversity of species of fish, crustaceans and molluscs (Table 2).

Table 1. Number and technical characteristics of the Spanish Mediterranean fleet by type of gear (Year 2011)

GEAR		Total
Trawl	nº	703
	Total Kw	131.316,77
	Total GT	41.896,47
	Average LOA	20,45
	LOA Range (8,82 – 32,53)	
Purse seine	nº	246
	Total Kw	41.195,25
	Total GT	8.451,42
	Average LOA	17,61
	LOA Range (6,15 – 27,0)	
Tuna Purse seine	nº	6
	Total Kw	5.850,73
	Total GT	1.608,00
	Average LOA	38,68
	LOA Range (34,60 – 43,45)	
Long line in census MED (a total of 82 LLD vessels had fishing operations in Mediterranean in 2011: both LLD census "Mediterranean" plus other LLD in census "national waters")	nº	59
	Total Kw	5150,55
	Total GT	1.770,36
	Average LOA	15,37
	LOA Range (8,8 – 25,68)	
Set longlines	nº	87
	Total Kw	6.175,81
	Total GT	833,98
	Average LOA	10,8
	LOA Range (5,57 – 22,0)	
Artisanal	nº	1.871
	Total Kw	59.898,37
	Total GT	6.846,42
	Average LOA	8,17
	LOA Range (3,25 – 27,0)	
Total	nº	2.972
	Total Kw	249.587,48
	Total GT	61.406,65
	Average LOA	14,48

Table 2. Total landings in 2011 by main target species (in Tons)

SPECIES	Tm
Engraulis encrasicolus	10422
Aristeus antennatus	1007
Sepia officinalis	926
Merluccius merluccius	3919
Trachurus spp	6174
Scomber spp	3738
Lophius spp	2401
Squilla mantis	843
Mullus spp	2008
Nephrops norvegicus	631
Octopus vulgaris	3816
Sardina pilchardus	17967
Loligo vulgaris	555
Micromesistius poutassou	2554
Thunnus thynnus	942.35
Thunnus alalunga	343.42
Xiphias gladius	1785

Data source: sale notes

Status of stocks of priority species

GSA01 & GSA06

European hake, *Merluccius merluccius* (Linnaeus, 1758), is one of the target demersal species of the Mediterranean fishing fleets, largely exploited in GSA01.The results show a decreasing trend in the last year both in recruits number and spawning stock biomass of the stock. Fishing mortality (Fbar1-3) decreases in the last year but still remain high. The Y/R analysis shows that the Fc (1.5) exceeds the Y/R F0.1 (0.28), F40%SPR (0.27) and F30%SPR (0.36) reference points. The status stock in the GSA 01 is in overfishing status. A reduction of the current fishing mortality is recommended by reducing the effort activity and improving the selection pattern of the fishery.

European hake is also one of the most important target species for the trawl fisheries developed by around 600 vessels along the GFCM geographical sub-area Northern Spain (GSA 06). By comparing $F_{0.1}$ and F_{max} against F_c, taking as reference F_{bar} over 2007-2011, it can be concluded that the resource is subjected to overfishing. A reduction in trawling fishing effort, along with a reduction of gillnet and long lining effort, in the context of a multi-annual management plan taking into account the multi-species landings of the trawl is recommended.

Blackspot seabream, *Pagellus bogaraveo* is one of the most important demersal target species of the longline commercial fisheries in the strait of Gibraltar area (GSA 01 and 03). These longliners accounted for 99 vessels in Spain and 102 longliners in Morocco. The Spanish and Moroccan fisheries are targeting this species in almost the same area. Stock is in overfishing status (F_c=0,194 higher than $F_{0.1}$=0.113 and than $F_{40\%MSY}$=0.120) and overexploited (MSY=331 t lower than Y at $F_{0.1}$=473 t and than Y at 40%=481 t). The actual effort level should be reduced to set the fishing mortality level to a more sustainable value and rationalize the management of this resource by establishing the same or similar management measures in both countries (Morocco and Spain).

The number of harbours with red shrimp (*Aristeus antennatus*) landings is 19 for the GSA06 area, with a total number of 130 trawlers. The comparison between VPA and XSA of 2010 and 2011

assessments showed small differences with continuous slight decreasing values for the Spawning Stock Biomass, Recruitment and Total Biomass. Results of equilibrium Y/R and SSB/R estimated the current exploitation close to the maximum. F_c= 1.16 F_{max}= 0.89 $F_{0.1}$= 0.56 (squared mesh). The stock is in overfishing status. Exploitation rate show a high F and the stock abundance is intermediate. According to Yield per Recruit a reduction of about a 51% in current fishing mortality is needed to reach the level of $F_{0.1}$.

The deep-water pink shrimp *Parapenaeus longirostris* is of great importance in terms of total landings and economic value for the countries bordering the Alboran Sea (Algeria - GSA04, Morocco - GSA03 and Spain – GSA01), largely exploited almost exclusively by trawl. The analytical analysis shows that the stock is in overfishing status. From the first model, the actual level of fishing mortality (F_{bar}= 1.135) is higher than the values calculated for the F_{MSY} proxy ($F_{0.1}$ = 0.48). The obtained results from the global model indicate that the deep-water pink shrimp stock is overexploited, with captures that exceed the natural production of the stock. By taking into account results of the evaluations and the predictive model used and with the intention of allowing the recovery of the stock to its optimal level, a reduction of 50% of the current fishing mortality in the trawl fisheries targeting *P. longirostris* is recommended.

Deep-water pink shrimp (*Parapenaeus longirostris*) is one of the main crustacean species for trawl fisheries in the GFCM geographical sub-area Northern Spain (GSA 06). It is an important component of landings in some ports and occasionally a target species of the trawl fleet composed of approximately 260 vessels that operates on the upper slope.

The *Parapenaeus longirostris* stock in GSA06 is subjected to overfishing. From a precautionary approach and taking into account the estimated reference point F_{MSY} proxy $F_{0.1}$, a reduction of fishing mortality about 70% to reach $F_{0.1}$ is recommended.

Assessment-related works

The European hake (*Merluccius merluccius*) is a major shared resource in the Alboran Sea (GSAs 01, 02, 03 and 04). The greater part of the European hake production is provided by trawlers.

The actual level of fishing mortality (Fc = 1.148) is higher than F0.1 = 0.48 which indicates that the stock is in overfishing status. The advices and recommendation of this assessment related work in terms of research and, when possible in terms of management was to reduce by 50% the fishing mortality in the current trawl fishery and to perform joint genetic analysis and research on *M. merluccius* in Algeria, Morocco and Spain (GSAs 01, 02, 03 and 04) to identify if there is a single common M. merluccius shared stock.

http://www.ices.dk/community/groups/Pages/WGSPEC.aspxThe state of exploitation of some of the main demersal and small pelagic species was assessed by VPA tuned with standardised CPUE from the commercial fleet and abundance indices from trawl surveys.

Red shrimp (*Aristeus antennatus*) exploited by the Spanish trawl fishery in the geographical sub-area GSA05 (Balearic Islands) is considered overexploited since $F_{current}$(1.28) was higher than $F_{0.1}$(0.33). Stock abundance, stock biomass and recruitment showed a clear decreasing trend between 1992 and 1997. Since then, the stock parameters showed certain stability, with oscillations along the rest of the years, but without any clear trend. It was recommended: 1) to reduce the fishing mortality; and 2) to protect the recruitment by reducing temporally the fishing time during the recruitment period at the beginning of autumn.

Hake (*Merluccius merluccius*) exploited by the trawl fishery off Mallorca (Balearic Islands, GSA05) was considered over-exploited since $F_{current}$(1.57) was higher than $F_{0.1}$(0.17). The main XSA outputs showed important oscillations along the data series without a clear trend, especially for recruitment and SSB. However, for some parameters, such as stock abundance and biomass, there is an increasing trend from 1995 on, which is also reflected in the landings. It was recommended: 1) to reduce the fishing mortality; and 2) to use of vessel monitoring system (VMS) information, which will help improving the knowledge about the spatial distribution of the fishing effort.

Striped red mullet (*Mullus surmuletus*) from the Balearic Islands (GSA05) is a main target species in the shallow shelf, although it is also caught in the deep shelf. It is also a target species of part of the artisanal fleet, being caught during the second semester of the year mainly by trammel nets. The stock exploited by the trawl and artisanal fisheries from GSA05 is overexploited ($F_{current}$=0.71, $F_{0.1}$=0.23). As in the previous species, it was recommended: 1) to reduce fishing mortality; and 2) to use of vessel monitoring system (VMS) information, which will help improving the knowledge about the spatial distribution of the fishing effort.

Norway lobster (*Nephrops norvegicus*) catches from GSA05 come from bottom trawlers exclusively. The stock is subjected to overfishing ($F_{current}$=0.45, $F_{0.1}$=0.13). Results showed stability along the data series, with a significant increasing trend for some of the parameters (stock biomass and spawning stock biomass) and no significant trend for the others (abundance and recruitment). As in the previous species, it was recommended: 1) to reduce fishing mortality; and 2) to use of vessel monitoring system (VMS) information, which will help improving the knowledge about the spatial distribution of the fishing effort.

Hake, *Merluccius merluccius*, is one of the most important demersal target species of the commercial fisheries in the Gulf of Lions (GSA07). In this area, hake is exploited by French trawlers, French gillnetters, Spanish trawlers and Spanish long-liners. The stock was considered overexploited ($F_{current}$=1.65, $F_{0.1}$=0.15) and characterized by growth overexploitation with periodically higher recruitments (1998, 2001-2002 and 2007) which ensured the sustainability of the stock at a very low abundance level.

Red mullet (*Mullus barbatus*) in the Gulf of Lions (GSA07) is exploited by both the French and Spanish trawl fleets. The stock is in an overfishing status ($F_{current}$=1.26, $F_{0.1}$=0.50) with periodically higher recruitments (2006 and 2010). It was recommended to reduce the trawling fleet fishing effort (e.g. reducing time at sea, number of fishing vessels, engine power).

Black-bellied anglerfish (*Lophius budegassa)* in the Gulf of Lions (GSA07) is exploited by French and Spanish trawlers. Following the Y/R methodology the stock seems to be in an overexploitation status ($F_{current}$=0.97, $F_{0.1}$=0.29). The angler fish stock has been assessed for the first time in this GSA. The authors wanted to keep this assessment as preliminary, but it was suggested that 3 years of VIT analysis was enough to accept the assessment. However, because of the lack of information on biological parameters and fisheries independent data, this assessment was kept preliminary.

Tuna fisheries Assessments

942.35 tons (RW) of Bluefin tuna (*Thunnus thynnus*) were caught in the Mediterranean Sea during 2011, most of which (93%) were caught by Purse seine. The rest correspond to long-liners (57.805 t) and sport fisheries (7.5 t). The main fishing grounds were Balearic Islands and Alboran Sea.
Albacore (*Thunnus alalunga*) was caught in the Mediterranean during 2011 using mainly surface long-lines (98%), but also with other surface gears (2%). In 2011, 343.4 tons (RW) were landed in the Mediterranean (which represents about a 24% increase from the catches taken in 2010).

Swordfish (*Xiphias gladius*) landings in 2011 were 1785 t (RW) in the Spanish Mediterranean. The main catches (99.3%) correspond to long-line fisheries. Other minor catches were obtained by traps (2.7 t) and other surface fisheries (10.8 t).

The small tuna in Spain were caught mainly in the Mediterranean Sea. These species are caught using surface gears and Traps, but *Euthynnus alleteratus* is also caught as by-catch in longline fisheries. The total catches along 2011 were 4288.9 t (RW); these landings were quite similar to those taken in 2010. The specific composition of these catches was: 573.9 t (13.4%) of Atlantic Bonito (*Sarda sarda*), 3227.3 t (75.2%) of bullet tuna (*Auxis rochei*), and 487.7 t (11.4%) of Atlantic little tunny (*Euthynnus alletteratus*).

Regarding *Coryphaena hippurus*, the main landings during 2011 corresponds to surface fisheries (175.8 t), but was also landed as bycatch of longline fisheries (7.9 t).

Status of the statistics and information system

The Spanish fisheries statistics and information system is based on the data from three different sources: sales notes, logbooks and landing declarations (under RD 1822/2009 and in compliance with Regulation CE 1224/09 and Regulation CE 2371/2002). Data are collected in port and in all places in which a first sale of the fishery products is carried out. Data of landings by species, commercial categories, prices, fishery vessel identification, fishing grounds, landing ports and dates are recorded on a daily basis. Data from logbooks and landing declarations are collected by General Secretariat for Fisheries of the Spanish Ministry. Data from sale notes are primarily collected and processed by the fisheries offices of the autonomous governments, and recorded in the centralized database of General Secretariat for Fisheries, in charge of collecting all the information related to fisheries and transmitting to the Commission, Fisheries Organizations and any other National or International Institutions.

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.

To appropriately manage this information, the General Secretariat for the Fisheries is developing a global tool to compile the different sources of information in a common database. The main purpose is to store and to export the data in the suitable format required by International bodies.

Status of research in progress

During the interssesional period, the IEO continued to monitor the fisheries of the main commercial species at the principal landing sites. The target demersal species sampled are Hake, Red mullet, Stripped red mullet, Anglerfish (*Lophius piscatorius*), Blue whiting (*Micromesistius poutassou*), red shrimp (*Aristeus antennatus*), Norway lobster (*Nephrops norvegicus*) *Parapenaeus longirostris* and *Octopus vulgaris*, while the target of small pelagic species are Anchovy, Sardine, Atlantic horse mackerel (*Trachurus trachurus*) and Chub macherel (*Scomber japonicus*), and the target of large pelagic species are Albacore, Bluefin tuna and Swordfish.

Demersal and small pelagic species

Concurrent sampling of lengths is made of the main fisheries of each GSA: otter bottom trawl, purse seine, trammel net and set long line. Bottom trawlers are sampled in all GSAs, purse seines are sampled in the GSA 1, 6 and 7, trammel nets are sampled in the GSA 1, 6 and 5, set long lines are sampled in the GSA 6 and 7 and traps are sampled in the GSA 1. On the other hand, biological studies of reproduction and growth are carried out of the demersal and small pelagic objective species.

The principal objective of length and biological sampling of demersal and small pelagic species is to obtain the data and parameters necessary to assess the main stocks in our coasts.

The annual international bottom trawl survey MEDITS was carried out with the aim of estimating relative abundance index of the main demersal species in the continental shelf and slope of the Spanish Mediterranean, including Balearic Islands. The yearly survey MEDIAS, which undertakes the international acoustic survey in the Mediterranean, was carried out in summer since 2009. Both surveys are activities carried out on a yearly basis under the framework of the National Program supported by the EU.
Bluefin tuna, swordfish, albacore and small tuna (Atlantic bonito, bullet tuna, Atlantic little tuna, and skipjack tuna) are the main target of tuna and tuna-like species by the Mediterranean tuna research program of the IEO. The main objective of biological sampling of tuna species is to support research on stock structure by means of genetic analyses (tissue) and microconstituents analyses (otoliths); as well as on reproduction (gonads) and growth (spines, vertebrae and otoliths) research.
During 2011, bluefin tuna were sampled in the Mediterranean for the obtention of biological samples collected from Spanish BFT fisheries (mainly by long-line and sport fishing).
The National Research project on BFT biology and migration patterns initiated in 2007 (MIGRATUN), finished in 2010 but BFT were tagging programs using Pop-Up Archival tags and archival internal tags were continued under the project and finance of GBYP-ICCAT. Conventional tagging activities were also developed in collaboration with commercial and recreational fisheries.
The study initiated in 2010 on bluefin tuna traps using these as scientific observatories has continued. 2011. The project includes the monitoring of fishing activities, sampling of size of catches, collection of biological samples for various studies and the monitoring of releases of bluefin tuna alive when the TACs were reached.
Research activities on Albacore (*Thunnus alalunga*, ALB) on board recreational and long-line fishery vessels targeting ALB are being continued. The research on maturity and growth developed in 2010 are on-going and results from this study are reported to ICCAT and other specialized groups. .
In July, 2011 took place the ICCAT assessment session of Mediterranean albacore. The result of this assessment shows a relatively stable pattern of the population size during the recent past.
Research activities regarding small tunas, mainly of Atlantic bonito (*Sarda sarda*), Atlantic little tuna (*Euthynnus alletteratus*), and bullet tuna (*Auxis rochei*) are being continued to study maturity and fecundity rates, age and growth. Within the activities related to studies in captivity and although the SELFDOTT Project has ended, the reproduction and breeding activities of Atlantic bonito, together with bluefin tuna are being continued.
Swordfish are being routinely sampled (Rw and/or length) in the Mediterranean in 2011. Biological samples were collected along 2011 in the Spanish swordfish fisheries (mainly long-line). Swordfish were tagged using Conventional tags in 2011. These activities were developed in collaboration with commercial fisheries

Status of the social sciences studies in progress or achieved during the intersessional period

Information on statistics of the Spanish fishery sector can be found in the following link of the Ministry´s web page. It is based on requirements from National Plan for Statistics and Eurostat

(Official statistical organism of the European Union). Sectors are economically classified into primary sector (marine fishery and aquaculture), secondary sector (processed fish industries) and tertiary sector (exterior trade). Statistics since year 2008 are available.
http://www.magrama.es/es/estadistica/temas/estadisticas-pesqueras/default.aspx

Marine environmental studies in progress

During this intersessional period, the IEO continues carrying out the series of quarterly surveys monitoring oceanographic conditions off Malaga (GSA1), Murcia (GSA6) and Mallorca (GSA5) under the framework of the activities developed to study climatic changes in the Mediterranean.

The project TROFOALBORAN focusing on the pelagic ecosystem trophic web dynamics influencing the early life stages of sardine and anchovy off their main nursery grounds in the Bays of Malaga and Almería undertook all the quarterly surveys and provided preliminary results of the project in relation to sardine and anchovy early life trophic food web in relation to their surrounding seasonal conditions of zoo- and phytoplanktonic nature.

During 2011-2012 research activities related with the effects of Marine Protected Areas (MPAs) on exploited communities, species and artisanal fisheries have been continued, quantifying benefits of spillover to adjacent fisheries and increased reproductive potential at regional level as a result the MPA protection. In 2012 in the Columbretes Islands Marine Reserve (Valencia) and the Menorca Channel (Balearic Islands) (Western Mediterranean) experimental fishing and underwater visual census surveys to estimate population status and recruitment in protected and exploited populations of the lobster *Palinurus elephas* have been continued, achieving a series of data of 12 years, covering years 10 to 22 of without fishing in the Columbretes MPA in the framework of the project ERICOL. Studies of the artisanal fisheries in the Menorca Channel have been conducted around the MPA of Levant / Cala Ratjada and in the wider channel as controls of the effects of protection in the Columbretes MPA. The species selectivity of artisanal fisheries, with attention to diversity of species and in particular benthic structural has been studied comparing the performance of different type of nets in the framework of the project LANBAL.

Research on the biology, ecology and fisheries of the lobster *Palinurus elephas* has been continued with advances in juvenile growth, patters of recruitment from natural and artificial (collectors) habitats and in relation to depth, video surveys with submarine and ROV to characterize juvenile habitats, estimation of external tag loss rates and v-notch tagging effects on lobster.

The Pinna project aims to quantify the population of an endangered species (*Pinna nobilis*) at MPAs and control areas. Several surveys have been conducted indicating high densities associated to protected areas. Data on genetics, gonad cycle, size structure, age determination, recruitment, invasive species effects, trophism, anchoring impacts of *Pinna nobilis* have been obtained.

The Azimut CENIT project is being developed at COB in order to study the offshore wind farms OWF impacts on marine biota. Several subtasks have been carried out: OWF as fish aggregating devices (FADs); OWF as artificial reefs (AA); OWF as marine protected areas (MPAs).

The COCONET projects focus on network of MPAs coupled with sea-based energy potential. Several subtasks are under progress, especially on anthropic impacts, MPAs, impacts of OWF on marine biota.

Other remarked projects developed in cooperation with many research institutions in the framework of the UE or founded by National Agencies are: SARAS Project (Eurofleets/UE) focusing the very

recent processes in the sea floor along Alboran Basin and margins, as well as MONTERA Project (CICYT) searching geohabitats on seamounts and related benthic communities, and the CONTOURIBER Project (CICYT) looking at the sedimentary dynamic of the drift deposits driven by contour currents around continental margins. Regional actions in cooperation with Malaga University have been also developed in the frame of MOSAICO and TESELA Projects along the south east Iberian coastal zone searching the effects of the river discharges on the sea floor deposits and modelling. Particular attention is paid to geological hazards and risks is done in order to prevent catastrophic disasters along the sea side.

Oceanographic multidisciplinary surveys have been undertaken during 2010/2011 and 2012 on board of a few vessels (Ramón Margalef, Sarmiento de Gamboa, Miguel Oliver, Vizconde de Eza, Emma Bardán and Cornide de Saavedra). Sampling methods (piston cores) and non-intrusive prospection methods (multibeam and ultrahigh seismic sections) have been carried out, including photo and video surveys. Scientific results are published through SCI few papers and international meetings.

These are related to the project INDEMARES *(www.indemares.es),* that is still ongoing and foreseen to finish in 2013. It was launched in 2009 aiming to 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). The project is being convened by the Biodiversity Foundation (Ministry for Agriculture, Food and Environment) and nine institutions, Governmental Deparments and NGOs are involved in the project -among which IEO, CSIC, General Secretariat for Fisheries, WWF/Adena and Oceana - in the study of 10 marine areas, 5 of them within the Mediterranean (Creus Canyon, Menorca Channel, Columbretes, Seco de los Olivos Bank and Volcanic Cones around Alborán Island). Oceanographic multidisciplinary surveys have been undertaken during 2012 on board of the vessels above mentioned, focusing to the end of the sampling and the writing of the reports. It is expected to have final results for the end of 2013 in order to provide solid scientific information on the importance of conservation and sustainable use of those marine areas for full implementation of the Natura 2000 network at sea and to end up with stakeholders participation in order to agree the management guidelines.

Furthermore, in each of the 7 Spanish Mediterranean Marine Reserves, managed by the General Secretariat for Fisheries, studies realised within the Spanish Marine Reserves Network teams, some in collaboration with the IEO and others with Universities, have been reduced due to the financial constraints. Nevertheless some works continue in order to tackle fisheries enhancement and biodiversity focusing emblematic groups such as marine phanerogams, cetaceans by opportunistic sightings as well as on invertebrates such as *Pinna nobilis*, *Dendropoma petraeum*, *Cladocora caespitosa* or gorgonians. Marine Reserves have turn out to be emblematic sites to investigate biodiversity and global change effects as within them, managers can witness effects of superficial marine waters heating on gorgonians or brain coral as well as the evolution of invasive species as the alga *Caulerpa racemosa*, among others.

Management measures

Spanish fisheries legislation sets out different management measures, without prejudice of EU or international regulations, applied to purse seine, bottom trawl, long line fisheries as well as artisanal gears. The expected effect is to contribute to the conservation and regeneration of fishery resources, as well as protecting nursery areas, protected habitats, and reducing fishing mortality.

The main regulations currently in force or recently approved are:
- Fishery Law 3/2001, applicable to all the fishing activities practised by Spanish vessels, as well as Community or international fishing vessels in Spanish waters. It includes measures on conservation of

fisheries resources, protection and regeneration of fisheries resources, management measures of fishing activity, regulation of recreational fisheries and inspection and control measures.

Regarding the process of updating the national law to EU legislation (mainly Council Reg. 1967/2006), some rules have been recently approved, regardless of the basic national regulation for each fishing gear established by Royal Decree:
- Ministerial Order ARM 2529/2011: management measures for purse seine fisheries in the Mediterranean, amended by Order AAA/2793/2012.
- Ministerial Order AAA/2794/2012, regulating artisanal fisheries ("artes fijos y menores") in the Mediterranean
- Order AAA/2808/2012 that establishes a Management Plan for Fisheries Resources Conservation within the Mediterranean for purse seiners, trawl and artisanal fleet, for the period 2013-2017.

As for tuna fisheries, the main national regulations are the following:
- Ministerial Order ARM/1753/2011 establishing management measures for Bluefin tuna in Eastern Atlantic and Mediterranean. Both EU and national rules emerge from ICCAT regulations, which for BFT it is stated by Recommendation 10/04, that establishes a Multi-annual Recovery Plan for Bluefin tuna within the East Atlantic and Mediterranean. TACs, seasonal closures, fishing gears and authorised vessels are established, among other measures.
- Ministerial Order APA/2521/2006, regulating surface longline fisheries for highly migratory species and creating a unified census for surface longliners
- Royal Decree 71/1998, that regulates tuna fisheries and related species in the Mediterranean

Regarding recreational fisheries, Royal Decree 347/2011 is the current legal framework for recreational fisheries within exterior waters. It establishes a National Register of authorised vessels, a list of authorised species, fishing modalities, limits of catches, general conditions for recreational fisheries and competitions, prohibited practices, specific authorizations for some species, catches declarations, etc. Marketing of catches is strictly prohibited.

With regard to Marine Reserves, the General Secretariat for Fisheries keeps on managing the seven Spanish Mediterranean Marine Reserves currently existing, with enforcement through guards on the spot, follow up, awareness programs, etc.

A comprehensive set of national regulations in the Mediterranean can be consulted in the following link:
http://www.magrama.gob.es/es/pesca/legislacion/Caladeronacional.aspx

Research suggestions for consideration by SAC

For the assessment of marine resources much a greater attention is needed in taking into considerations 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/TUNISIE

Description de l'activité de pêche

Les côtes tunisiennes s'étendent sur environ 1 300 km abritant 8 ports hauturiers, une quarantaine de ports côtiers et de nombreux sites de débarquement éparpillés tout au long des côtes. Selon les dernières statistiques de la Direction Générale de la Pêche et de l'Aquaculture (DGPA), la production annuelle en 2011 a atteint environ 109 160 tonnes dont plus de 50 863 tonnes constitués d'espèces de petits pélagiques (sardine, sardinelle, saurel, maquereaux, anchois, …). Les différents types de pêche pratiqués sont essentiellement la pêche côtière, la pêche au chalut benthique, la pêche au feu et à la petite senne, la pêche au thon, la pêche au coquillage et la pêche aux éponges et au corail. Selon l'activité de pêche pratiquée, les fonds fréquentés pourraient s'étendre du rivage (pêche à pied des coquillages) jusqu'à plus de 600 m de profondeur (pêche au chalut). Par ailleurs, il est à noter que les eaux tunisiennes sont subdivisées en trois zones principales : la zone Nord (GSA 12) ; la zone Est (GSA 13) et la zone Sud (GSA 14). La flottille de pêche est constituée de plus de 12 000 unités de pêche dont 6655 barques côtières non motorisées, 4866 barques côtières motorisées, 434 chalutiers, 382 sardiniers et 41 thoniers (Annuaire Statistique de la DGPA, 2011). Selon leur activité et leur zone de pêche, la longueur totale des unités de cette flottille peut varier d'environ 3 m (barque non motorisées) à environ une trentaine de mètres (chalutiers puissants et thoniers). De même pour la puissance des moteurs qui peut osciller entre 0 et 150 Cv (Chevaux vapeur) pour les barques côtières et de 250 à 700Cv pour les unités les plus puissantes

Statut du système d'information et statistique

Tout d'abord, il est important de noter que 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). Le Ministère dispose actuellement d'une base de données informatisée et l'information selon l'espèce, l'engin, les unités de pêche, remonte à l'année 1995.
Ce système serait amélioré au courant des années à venir pour renforcer la qualité des données collectées. En effet, actuellement, au niveau de collecte de données, la méthode appliquée repose sur les journaux de pêche, particulièrement pour les chalutiers, les thoniers et les senneurs. Pour la pêche côtière, la collecte se base sur un recensement et une présence physique lors des débarquements, un travail délicat qui demande beaucoup d'effort et de moyens. Depuis l'année dernière, la DGPA appuyée par la FAO (Projet FAO/CopPeMedII) a lancé une opération pilote de collecte et d'amélioration des données statistiques de la pêche artisanale. Le site choisi est le port de Monastir à l'Est du pays.

Activités de recherche en cours

Dans le domaine de l'évaluation des stocks, les différentes activités de recherche sont effectuées par l'Institut National des Sciences et Technologies de la Mer (INSTM), plus particulièrement le Laboratoires des Sciences Halieutiques (LSH), en collaboration très étroite avec l'université tunisienne, les services du Ministère de l'agriculture des ressources hydrauliques et de la pêche et la profession (Union tunisienne de l'agriculture et de la pêche - UTAP). En effet, depuis l'année 1996, la Tunisie a lancé, d'une façon continue, un grand programme d'évaluation des ressources halieutiques vivantes tunisiennes. Ce programme a été structuré selon des étapes consécutives.
Au courant de l'année 2011, le laboratoire en question a lancé trois autres actions de recherche en continuité avec celles précédentes.

Ces actions sont les suivantes:

- ***Projet de recherche*** **:** Ressources benthiques exploitables des eaux tunisiennes : Évaluation des stocks et aménagement des pêcheries.
- ***Projet de recherche*** **:** Ressources pélagiques exploitables : Évaluation des stocks et aménagement des pêcheries
- ***Projet de recherche 3 :*** Amélioration de la sélectivité des engins de pêche.

Concernant les différents thèmes abordés par ces actions de recherche, les opérations de collecte de l'information sont dans leur deuxième année.

Cependant, il est important de noter que dans le cadre des activités de la CGPM, les équipes de recherche tunisiennes et celles italiennes, dans le cadre du projet FAO/MedSudMed ont présentés 2 travaux d'évaluation. En effet, ces évaluations qui ont concerné les stocks de la chevrette et du merlu, ont été présentées, discutées et approuvées lors de la réunion du groupe de travail des Démersaux (Split, Croatie, 5 au 9 novembre 2012).

Études en sciences socioéconomiques

Il faut tout d'abord rappeler que la Tunisie a réalisé un travail très intéressant sur les indicateurs socioéconomiques des pêcheries du golfe de Gabès. Très récemment ce travail a été étendu pour les pêcheries de la région Nord et Est du pays. De plus, en 2006, nous avons pu achever un travail sur l'application des modèles bioéconomiques de la pêcherie de la crevette royale dans la région du golfe de Gabès. Les plus importants résultats de ce travail ont été présentés par notre expert lors de la dernière réunion du Sous-Comité des sciences sociales et économique (SCESS) du SAC (Malaga, 30 novembre-3 décembre 2009). Dans le cadre de la réalisation de l'action de recherche LAMPAROS, notre regard s'est retourné vers l'étude de la rentabilité économique des unités de pêche ciblant les petits pélagiques, particulièrement les unités de la pêche au feu et des petits sardiniers. Les opérations de collecte et d'analyse des données ont été déjà finalisées et les résultats sont actuellement disponibles. Par ailleurs, notre expert en la matière a également présenté 2 communications lors de la dernière réunion du SCESS, tenue à Rome du 18 au 20 février 2013.
Ces deux communications sont respectivement intitulées :

- Analyse bioéconomique des pêcheries des petits pélagiques dans la région de Zarzis
- Analyse socioéconomique de la pêche côtière/artisanale et évaluation des actions du plan de gestion relatif à la lagune de Boughrara

Étude dans le domaine de l'environnement marin

Dans le cadre des programmes de recherche exécutés au sein du laboratoire biodiversité et biotechnologie marines de l'INSTM, nous avons étudié le statut de plusieurs groupes d'espèces de vertébrés marins pour la plupart menacés: tortues marines, cétacés et élasmobranches ainsi que plusieurs habitats sensibles. Ces études mentionnées dans ce rapport répondent en grande partie au programme de travail intersessions du SCMEE. Les principaux actions et résultats des activités de recherche sont résumés ci-après:

Tortues marines

- Monitoring du site de nidification des îles Kuriat qui a permis d'enrichir davantage la base des données relative aux paramètres de nidification.
- 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.

- Campagnes de sensibilisation dans les ports de pêche pour réduire le by catch avec élaboration de posters et dépliants.

Élasmobranches

- Achèvement de l'étude biologique de deux espèces de squales : *Squalus blainvilleii* et *S. megalops* et de cinq raies : *Raja clavata*, *R. miraletus*, *R. oxyrhinchus*, *R.radula* et *R. alba* dans le golfe de Gabès (GSA 14).
- Etude du régime alimentaire de deux dasyatidae *Dasyatis pastinaca* et *D. tortonesi*.
- délimitation des zones de nurseries pour quelques espèces de poissons cartilagineux (travail en cours).

Autres poissons

- Etude de la structuration génétique des mérous (genre *Epinephelus*) en Tunisie: apport des marqueurs moléculaires ADN mitochondrial et microsatellites. L'étude a montré une grande diversité génétique pour l'échantillon tunisien *Epinephelus costae* (H=0.833) et *E. marginatus* libyen (H=0.676), alors que cette diversité génétique est très faible chez les échantillons d'*E.marginatus* (0.294) et *E.aeneus* tunisiens (0.292) ce qui nécessite une gestion adéquate de leur exploitation.
- Signalisation du poisson tétraodontidae toxique *Lagocephalus sceleratus*, migrant lessepsien. Une campagne de sensibilisation auprès des pêcheurs et citoyens a été organisée et des affiches dans les ports et marchés affichées.

Cétacés

- Etude des delphinidés des côtes nord de la Tunisie et étude d'interactions avec l'activité maritime. Les volets suivants ont été développés :
    - Une estimation de la taille des groupes,
    - Une étude éthologique en fonction de la bathymétrie et la topographie,
    - Comportements: Alimentation, Socialisation, Locomotion et Interaction avec les engins de Pêche.
    - Une analyse de la structure sociale des delphinidés.
- Recensement de sept échouages de cétacés

Etude de la biocénose coralligène

Le but étant d'observer la distribution des types d'habitats autour de l'archipel de la Galite, les limites bathymétriques du coralligène et à inventorier les espèces du méga benthos rencontrés. Le travail a été réalisé à bord du NRO Hannibal, par plongée, dragage et recours à la caméra sous-marine, entre 60 et -130 m. Les premiers résultats sont :

- l'inventaire des espèces du macro benthos du coralligène des fonds durs autour de l'archipel de la Galite et les bancs avoisinants (Mazarile et Speiss) au Nord de la Tunisie ; avec une première liste composée de 32 algues, 10 spongiaires, 7 échinodermes, 10 bryozoaires, 02 ascidies, 07 mollusques, 04 vers et 04 cnidaires, avec plusieurs espèces signalées pour la première fois en Tunisie et en Méditerranée.

Nouvelles mesures d'aménagement

Instauration d'une nouvelle réglementation de l'activité de pêche durant la période d'intersessions qui se résume à la fermeture totale de la région sud de la Tunisie (GSA 14, golfe de Gabès) à la pêche au chalut durant une période de trois mois (du 1er juillet 2009 au 30 septembre 2009). Cette mesure de gestion est appliquée pendant 4 années : 2009, 2010, 2011 et 2012.

Proposition de recherche pour le CSC

L'INSTM continue régulièrement ses activités de recherche et entretient une collaboration assez étroite avec les deux projets régionaux FAO/MEDSUDMED et FAO/COPEMEDII. En effet, dans le cadre des activités de ces deux projets, la Tunisie continue ses activités concernant les évaluations des stocks partagés, particulièrement la chevrette et le merlu dans la région du Canal de Sicile, la pêche artisanale. Par ailleurs, dans une perspective de l'application de l'approche écosystémique en tant qu'outil d'aménagement des pêcheries méditerranéennes, la Tunisie est intégrée dans un projet européen sur cet aspect. Ce projet de recherche qui groupe des instituts de recherche espagnole, italiennes et tunisiennes, a été provisoirement accepté, pour financement, par l'Union européenne. Du côté biodiversité marine, plusieurs projets nationaux et régionaux sont en cours d'élaboration ou de recherche de financement concernant surtout les tortues marines et les élasmobranches.

TURKEY/TURQUIE

Description of the fisheries

Total fish production of Turkey in 2011 (latest official) including inland fishery and aquaculture was 703.545 tons (inland catch 37.096 tones, aquaculture production 188.790 tones and marine catch 477.658 tons). Turkish fishery can be described as multi type fishery, from artisanal to small scale and to industrial fishery. Fishing is conducted in international waters, EEZ and Turkish territorial waters of Mediterranean Sea, Aegean Sea, Marmara Sea and Black sea. Major landing comes from small pelagic fishery mostly anchovy, sprat, sardine, horse mackerel and Atlantic bonito of industrial fishery. Shell fish fishery is also important export product of Turkish fishery.

Table 1. Fisheries type by regions and main commercial species

Fishing type	Sea regions	GSAs	Species
Pelagic fisheries	Eastern Black Sea	29	Anchovy, horse mackerel, bonito, sprat
	Western Black Sea	29	Anchovy, sprat, bonito, bluefish, scad, chub mackerel, sardines, dogfish
	Marmara	28	Anchovy,bonito,sprat, scad,bluefish,sardines
	Mediterranean and Aegean	22,24	Sardines, chub mackerel
Trawl fisheries	Western Black Sea	29	Whiting, red mullet, turbot
	Aegean	22	Mixed
	Mediterranean	24	Mixed
Highly Migratory Species	Mediterranean and Aegean	24 22	Tuna Swordfish
Artisanal fisheries (gillnet, trammelnet, longline, traps)	Black Sea, Marmara, Mediterranean and Aegean	29,28,24,22	Mixd (whiting, turbot, red mullet, grey mullet, shrimp, sparids, sole and dab, squids, octopus and cuttlefish, swordfish)
Sea snail fisheries (dredging)	Eastern Black Sea	29	Sea snail
Clam fisheries (dredging)	Western Black Sea	29	Baby clams
Shrimp/Prawn fisheries	Marmara, Aegean and Mediterranean	28,22,24	Shrimp
Lagoon fisheries	Mediterranean , Aegean and Marmara	24,22,28	Mixed (seabass, seabream, eel, mullets)

Graphs 1. Production of fishery production (2002-2011)

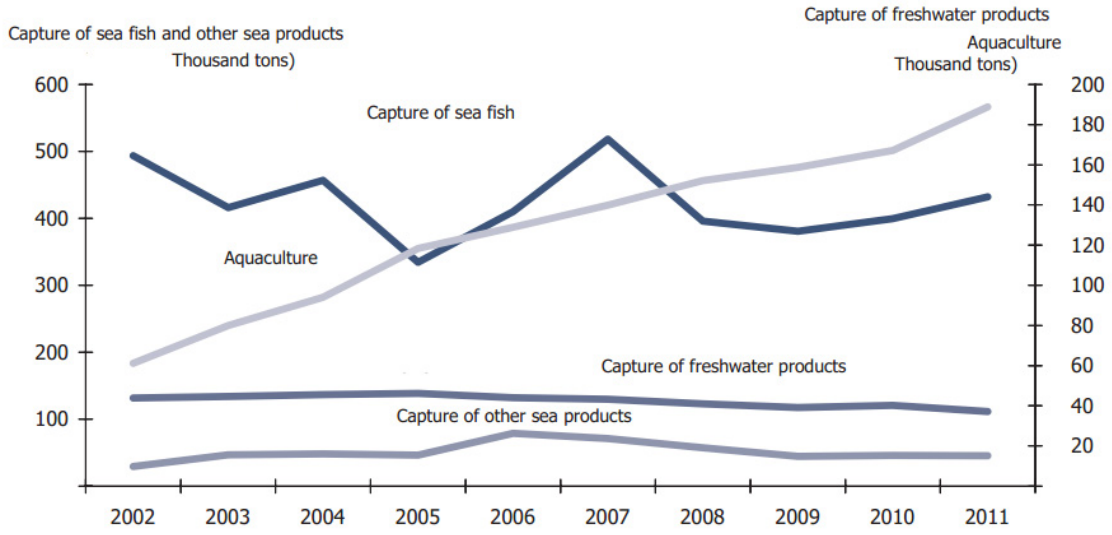


Table 2. Total fish production (2007-2011)

Year	Capture				Aquaculture		Total
	Marine	%	Inland	%	Amount	%	
2007	589.129	76.3	43.321	6	139.873	18.1	**772.323**
2008	453.113	70.1	41.011	6.4	152.186	23.5	**646.310**
2009	425.275	68.2	39.187	6.3	158.729	25.5	**623.191**
2010	445.680	68.2	40.259	6,2	167.141	25,6	**653.080**
2011	477.658	67.9	37.096	5,3	188.790	26,8	**703.545**

Table 3. Marine fish landings (tonnes)

Species/Year	2007	2008	2009	2010	2011
Anchovy	385.000	251.675	204.699	229.023	228.491
Sprat	11.921	39.303	53.385	57.023	87.141
Horse mackerel	32.021	32.177	28.268	20.447	25.010
Sardine	20.941	17.531	30.091	27.639	34.709
Whiting	12.940	12.231	11.146	13.558	9.455
Atlantic bonito	5.965	6.448	7.036	9.401	10.019
Grey mullet	8.291	3.345	2.987	3.119	2.514
Blue fish	6.858	4.048	5.999	4.744	3.122
Turbot	769	528	383	295	166

Fleet structure

There are 20.289 vessels registered in Fisheries Information System (FIS). The size range of fishing vessels is given in the Table 4. The majority of fishing fleet is comprised of small vessels less than 18 meters in length. Nearly half of the total fishing fleet is based in the Black Sea ports. The majority of large vessels operate in the Sea of Marmara and the Black Sea. Under the current fishing fleet management system, fishing license is not granted to a new vessel.

Table 4. Size range of fishing vessels

Size(m)	0-4.9	5-7.9	8-9.9	10-11.9	12-14.9	15-19.9	20-29.9	30-49.9	50+	Total
Marine	845	10.638	3.017	826	672	429	521	210	7	**17.165**
Inland	290	2.536	207	29	52	15	0	0	0	**3.124**
Total	**1.135**	**13.174**	**3.234**	**855**	**724**	**444**	**521**	**210**	**7**	**20.289**

Status of stocks for priority species

The Scientific and Technological Research Council of Turkey and the Ministry of Food, Agriculture and Livestock jointly carry out the Project on "Acoustic Method for the Determination of the Black Sea Anchovy Stocks and Continuous Monitoring "within the National Fisheries Data Collection Programme.

Status of the statistics and information system

Over the last years, markedly progress has been made in development of fisheries data collection system in Turkey. Fisheries Information System (FIS), an integrated Web-based database, has been developed. The FIS, which is being subject to routine updates, comprises a combination of resources organised to collect, process, transmit, and disseminate the fisheries relevant data. The system is composed of modules interacting to introduce and extract data to/from a centralized database. The integrated FIS includes registry of commercial fishing vessels, fishing licence registry, registry of recreational fishers, issue of special fishing permits to fishers, data on landings, quota (bluefin tuna), catch quota (striped venus clam and eel), collection of biologic data, monitoring of anchovy catches transhipped to cold storages or processing plants, issue of catch certificate under the scope of EU Regulation 1005/2008, inspection forms, sales notes and collection of fisheries and aquaculture statistics.
Vessels over 15 meters are under an obligation to record and keep logbook. The Ministry of Food, Agriculture and Livestock is planning to shift paper-based logbook into the electronic one due to excess work burden associated with the paper logbook. A study on development of an integrated system for electronic logbook is underway. The application of VMS has been started in 2008 with the vessels involved into bluefin tuna fishing under the rules of ICCAT. About 200 vessels have been equipped with VMS-device. Fishing vessels over 15 meters (about 1.263 vessels) are under an obligation to have Automated Identification System (AIS).

Status of marine environmental studies in progress

An ongoing project titled "Strengthening Protected Area Network of Turkey: Catalyzing Sustainability of Marine and Coastal Protected Areas" aims to facilitate expansion of the national system of marine and coastal protected areas, including fisheries protected areas, and improve their management effectiveness. The project is partly funded by GEF and will be completed in October 2013.

Status of the social sciences studies status

In 2010, two studies on socio economic status of Aegean fishery and northern Mediterranean fishery were completed by fisheries faculties of Aegean university and Mersin University. And also another study "socio economic analyses of Mediterranean fishermen" by Economical Research Institute of the Ministry of Food, Agriculture and Livestock has been completed.

Management measures

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.

With regard to: *Recommendation GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area*
It is prohibited to harvest red coral in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing.

With regard to: *Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area*
It is prohibited to catch cetaceans such as dolphin, whale and seal in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing. Turkey has attempted to take measures to mitigate by catch of cetaceans. Turkey has involved in some bilateral pilot projects to reduce by catch (buoy gear project to prevent the usage of modified driftnet gear)

With regard to: *Recommendation GFCM/36/2012/3 on fisheries management measures for conservation of sharks and rays in the GFCM area*
For all season, shark and rays catching are prohibited in all coastal lines of Turkey in accordance with Article 16 of the Notification 3/1 Regulating Commercial Fishing.

Research suggestions for consideration by SAC

None

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its fifteenth session in Rome, from 8 to 11 April 2013. The session was attended by delegates from 20 Members of the GFCM as well as 12 observers and representatives of the FAO including regional projects. The Committee reviewed the issues addressed at the eight technical meetings, including the four sessions of its subcommittees, and at the workshops held during the 2012–2013 intersession. It examined actions carried out within the first phase of the GFCM Framework Programme (FWP). The main issues addressed included: i) scientific advice on stocks status, ii) a draft proposal for a regional management plan of red coral (RMP-RC), iii) the conservation status of species of special interest; iv) data collection schemes, including data compliance, and GFCM data collection reference framework and v) research programmes. The Committee also discussed technical issues in connection with the use of area-based measures, IUU fishing, VMS data and management related to bycatch and discards of commercial and non-commercial species. Furthermore, it endorsed the organization of a Regional Symposium on Sustainable Small-Scale Fisheries in the Mediterranean and Black Sea by the end of 2013. Priority actions in the Black Sea were examined and the Committee welcomed the creation of a Mediterranean and Black Sea database of experts and institutions as well as of a Black Sea subregional group on stock assessment. The Committee endorsed a revised standard format for national reports and a proposal for a biennial report on the status of fisheries in the GFCM area. The Committee was informed about progress achieved within the process of amendment of the GFCM legal and institutional framework and welcomed the adoption of a subregional approach, in particular with respect to multiannual management plans. To facilitate this approach, the Committee expressed its support to the creation of subregional working groups and welcomed the proposal to establish a support mechanism to the decision-making process. Finally, it agreed upon its work plan for 2012–2013, endorsed the nomination of coordinators for its subcommittees and decided to submit the issue of the election of its Bureau to the next GFCM session.

Le Comité scientifique consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa quinzième session à Rome, du 8 au 11 avril 2013. Ont participé à cette session les délégués de 20 Membres de la CGPM, ainsi que 12 observateurs et des représentants de la FAO y compris ses projets régionaux. Le Comité a passé en revue les questions abordées lors de huit réunions techniques, y compris les sessions des quatre sous-comités, et au cours d'ateliers tenus pendant la période intersessions 2012-2013. Il a en outre examiné les actions menées durant la première phase du programme-cadre de la CGPM (FWP). Les principaux aspects abordés concernaient notamment: i) les avis scientifiques sur l'état des stocks; ii) une proposition de plan de gestion régional du corail rouge (RMP-RC); iii) l'état de conservation d'espèces présentant un intérêt particulier; iv) les systèmes de collecte de données, notamment les aspects relatifs à la conformité, et le cadre de référence de la CGPM pour la collecte de données et v) les programmes de recherche. Le Comité s'est en outre penché sur des questions techniques relatives à l'utilisation de mesures spatiales, la pêche INDNR, les données de SSN et la gestion des captures accessoires et rejets d'espèces commerciales et non commerciales. Par ailleurs, il a approuvé l'organisation d'un symposium régional sur la pêche artisanale durable en Méditerranée et en mer Noire d'ici fin 2013. Le Comité a examiné plusieurs actions prioritaires en mer Noire et s'est félicité de la création d'une base de données d'experts et d'institutions en Méditerranée et en mer Noire ainsi que d'un groupe sous-régional sur les évaluations de stocks en mer Noire. Il a approuvé le modèle révisé pour les rapports nationaux ainsi que celui de rapport biennal sur l'état des pêches dans la zone de la CGPM. Le Comité a été renseigné sur les avancées du processus d'amendement du cadre juridique et institutionnel de la CGPM et s'est félicité de l'adoption d'une approche sous-régionale, notamment pour ce qui est de la mise en place de plans de gestion pluriannuels. Afin de faciliter sa mise en œuvre, le Comité a manifesté son soutien à la création de groupes de travail sous-régionaux et a salué la proposition d'établir un mécanisme d'appui au processus décisionnel. Enfin, il a convenu de son programme de travail pour 2012-2013, approuvé la nomination des coordonnateurs de ses sous-comités et décidé de soumettre la question de l'élection de son Bureau à la prochaine session de la CGPM.

ISBN 978-92-5-008514-7 ISSN 2070-6987

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I3503BI/1/11.13