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Report of the forty-third session

Athens, Greece, 4–8 November 2019

43

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REPORT OF THE FORTY-THIRD SESSION

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PREPARATION OF THIS DOCUMENT

This document is the final version of the report adopted in November 2019 by the General Fisheries Commission for the Mediterranean at its forty-third session in Athens, Greece.

ABSTRACT

The forty-third session of the General Fisheries Commission for the Mediterranean (GFCM) and the tenth session of the Committee on Administration and Finance were attended by delegates of 19 contracting parties, as well as of three cooperating non-contracting parties and two non-contracting parties. Representatives from 13 intergovernmental and non-governmental organizations, the Food and Agriculture Organization of the United Nations and its regional projects, as well as the Bureaus of the Commission and its subsidiary bodies, were also in attendance.

During the session, progress in activities related to fisheries, aquaculture, compliance and other strategic activities was reviewed. Moreover, the outcomes of the second GFCM performance review were commented. In relation to the management of fisheries and aquaculture in the GFCM area of application, eight binding recommendations were adopted, dealing with the following issues: the use of anchored fish aggregating devices in common dolphinfish fisheries in the Mediterranean Sea, information on access agreements in the GFCM area of application, the establishment of a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the GFCM area of application, the sustainable exploitation of blackspot seabream in the Alboran Sea and red coral in the Mediterranean Sea, multiannual management plans for turbot fisheries in the Black Sea and sustainable demersal fisheries in the Adriatic Sea, and management measures for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Strait of Sicily. Furthermore, the Commission discussed issues related to the mandate of the GFCM Executive Secretary.

Finally, the Commission adopted its programme of work for the next intersession and approved its autonomous budget for 2020 and for 2021, amounting to USD 2 611 142 yearly as well as a number of strategic actions to be funded through extrabudgetary resources. It also unanimously endorsed the new Bureaus of the Scientific Advisory Committee on Aquaculture and the Working Group on the Black Sea and agreed to renew the mandate of the Bureau of the Compliance Committee for an additional two years.

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OPENING AND ARRANGEMENTS OF THE SESSION

1. The General Fisheries Commission for the Mediterranean (GFCM) held its forty-third session as well as the tenth session of its Committee on Administration and Finance (CAF) in Athens, Greece, from 4 to 8 November 2019. Attendants included delegates from 19 contracting parties, three cooperating non-contracting parties and two non-contracting parties as well as observers, among which representatives from 13 intergovernmental and non-governmental organizations, the Food and Agriculture Organization of the United Nations (FAO) and its four regional projects, the Bureaus of the Commission and its subsidiary bodies and the GFCM Secretariat. The list of participants is provided in Appendix 2.

2. Ms Fotini Arampatzi, Deputy Minister of Rural Development and Food of Greece, welcomed participants to Athens. She recalled how fish had been historically important for the diet of all people in the Mediterranean and the Black Sea and that small-scale fishing carried out by local communities embodied traditional values. In confirming the strong commitment of her country towards sustainable fisheries, she called upon the GFCM to combat illegal, unreported and unregulated (IUU) fishing and urged countries to take bold action to ensure the sustainable use of resources. In this respect, she underlined the significant role of the GFCM in boosting dialogue and cooperation in the region.

3. Mr Árni M. Mathiesen, Assistant Director-General, FAO Fisheries and Aquaculture Department, addressed participants on behalf of the FAO Director-General, Mr Qu Dongyu, and thanked the hosting country for its warm welcome. In stressing how the new FAO management had triggered a reflection and brought in new perspectives, he underlined the decisive part to be played by the GFCM as well as the great strides it had made on all fronts.

4. Mr Roland Kristo, GFCM Chairperson, cursorily reviewed the main achievements of the GFCM during the intersession, his first as GFCM Chairperson. He emphasized in particular the successful outcomes of the Forum on Fisheries Science in the Mediterranean and the Black Sea (Fish Forum) (FAO headquarters, Rome, Italy, December 2018) and of the High-level conference on MedFish4Ever initiatives (Morocco, June 2019) as well as the positive achievements at the subregional level. Mr Kristo encouraged the GFCM to continue pursuing ambitious goals and delivering sound results.

5. The delegate of the European Union (EU [Member organization]) welcomed the progress that was being made by the GFCM against the background of three ministerial declarations adopted in recent years. In this context, she thanked all Contracting Parties and Cooperating non-Contracting Parties (CPCs) for their efforts towards greater sustainability and better management of fisheries, while urging the adoption of new measures, including those underpinning compliance with GFCM recommendations. She reiterated the readiness of the EU to support countries, including through its neighbourhood policy, in the implementation of GFCM decisions, in particular as regards research, scientific cooperation, data collection and the fight against IUU fishing in the Mediterranean and the Black Sea.

6. The delegates of Algeria, Morocco and Tunisia referred to the efforts deployed by their countries in implementing a variety of priority activities at the national level towards ensuring sustainable fisheries and aquaculture development, in line with the GFCM strategies in place and with the decisions taken by the Commission. They affirmed their commitment to ongoing and new initiatives promoted by the GFCM, upholding national strategies. They were of the view that the GFCM had to build upon this work and foster regional-national commonalities.

7. The delegate of Spain announced the finalization of the agreement between FAO and Spain on the establishment of the subregional technical unit for the western Mediterranean in Málaga, which would be housed at the facilities offered by the city of Malaga.

8. The delegate of Lebanon informed about the recent signature of a letter of agreement (LoA) between his country and the GFCM, expressing hope that this instrument would strengthen the role of Lebanon in the GFCM.

9. The delegate of Turkey reported on important developments at the national level. He informed the Commission that the amended and updated national fisheries law to account for technical aspects and international commitments had entered into force and that Turkey had transposed the GFCM recommendations into its legislation. He also mentioned that his country would keep on supporting targeted action in the Black Sea as it had been doing within the framework of the BlackSea4Fish project.

10. The full text of opening addresses, as provided in their original language, is available in Appendix 4.

11. Following these addresses, Mr Abdellah Srour, GFCM Executive Secretary, introduced delegations and observers, provided information on the arrangements for the meeting and reported on credentials.

12. The Commission was informed about the statement of competence and voting rights by the EU and its Member States. The agenda was adopted as attached in Appendix 1. All documents available to the Commission are listed in Appendix 3.

13. Ms Venetia Kostopoulou (EU) and Mr Amine Mansouri (Morocco) were appointed rapporteurs of the session to support the GFCM Secretariat in drafting the report.

PROGRESS ON COOPERATION MATTERS

14. On the basis of document GFCM:43/2019/Inf.5, the GFCM Secretariat reported on cooperation issues, including the provision of technical assistance to CPCs. Information on the involvement of the GFCM Secretariat in relevant fora and joint initiatives was also provided, together with a progress report on the implementation of existing memoranda of understanding (MoUs).

15. The delegate of the EU acknowledged the importance of technical assistance, although she maintained that a distinction should be made between requests for technical assistance by CPCs in a situation of non-compliance and technical assistance provided to enhance national and subregional capacity. As cooperation rested on mutual efforts, she urged CPCs not only to require assistance but also to facilitate it, as there were both rights and obligations stemming from participation in the GFCM.

16. The delegate of the Kingdom of Saudi Arabia referred to the efforts made by his country towards the sustainable development of aquaculture, a sector which had been growing considerably in recent years. This had been possible thanks to linkages with Mediterranean institutions, private sector and technical equipment as well as with the expert support of FAO. Saudi Arabia was now seeking to establish closer international relationships and to build on technical cooperation and capacity building. He thanked the GFCM for the opportunity to take part in the session and went on to request the cooperating non-contracting party status with a view to promoting synergies in the field of aquaculture in particular.

17. The Commission thanked Saudi Arabia for its interest in cooperating. While recalling its principles of openness and cooperation with all countries and organizations, the Commission decided to postpone the decision on this matter. In accordance with the rules in place, Saudi Arabia was invited to send to the GFCM Secretariat a formal and substantiated request, at least 90 days prior to the next session.

18. The importance of joint initiatives in further promoting synergies was underlined, including ongoing consultations in the context of global fora such as the Global Environment Facility (GEF-7).

19. Several partner organizations, including the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), the International Organisation for the Development of Fisheries in Eastern and Central Europe (Eurofish), the International Union for the Conservation of Nature (IUCN), OceanCare, the World Wide Fund for Nature (WWF) and the United Nations Environment Programme – Mediterranean Action Plan (UN Environment-MAP) intervened to praise cooperative efforts with the GFCM, including in the context of MoUs. The latter drew the attention of the Commission to the Joint Cooperation Strategy on spatial-based protection and management measures for marine biodiversity to be adopted at the next UN Environment-MAP Meeting of the Contracting Parties to the Barcelona Convention, which would enhance its coordination with ACCOBAMS, the GFCM and the IUCN Centre for Mediterranean Cooperation (IUCN-Med). The full text of available statements by partner organizations in their original language is available in Appendix 4.

20. The Commission agreed that some MoUs (i.e. with UN Environment-MAP) should be updated to take stock of ongoing practice. Furthermore, the Commission called upon additional cooperation efforts with partners to mitigate bycatch and bolster the contribution of the GFCM to environment-related issues.

REPORT ON INTERSESSIONAL ACTIVITIES IN 2018–2019 EMANATING FROM SUBSIDIARY BODIES AND IN THE CONTEXT OF THE FISHERIES AND AQUACULTURE STRATEGIES IN PLACE AND HIGH-LEVEL EVENTS

Scientific Advisory Committee on Aquaculture

21. Mr Ibrahim Al Hawi, Chairperson elect of the Scientific Advisory Committee on Aquaculture (CAQ), presented the intersessional activities based on documents GFCM:43/2019/3 and GFCM:43/2019/Inf.8. These included the operationalization of the aquaculture strategy, the activities of the aquaculture demonstrative centres (ADCs) in the Black Sea and other activities related to market, governance and aquatic animal health. In particular, the preparation of guidelines on alien species, restocking and stock enhancement, and social acceptability was highlighted.

22. The Commission praised the important work done by the CAQ. The delegate of the EU noted that the implementation of the aquaculture strategy was on track and stressed that the CAQ had made an important effort with the guidelines, which now needed a clear framework ahead of their final elaboration and validation. Similarly, the delegates of Algeria, Lebanon, Morocco and Tunisia expressed their thanks for the development of such guidelines, including related to technical assistance, which fit seamlessly with national strategies.

Scientific Advisory Committee on Fisheries

23. Mr Alaa Eldin El Haweet, Chairperson of the Scientific Advisory Committee on Fisheries (SAC), presented the intersessional activities based on documents GFCM:43/2019/2 and GFCM:43/2019/Inf.10. He referred in particular to regional and subregional activities in the fields of stock assessment, fisheries management measures, marine environment and ecosystems, data collection and data quality, and small-scale and recreational fisheries.

24. The Commission underlined the important results achieved by the SAC, particularly with respect to improvements in stock assessment quality and in the precision of advice in support of management measures. The Committee was urged to continue working in this direction, taking into account socio-economic impacts, advising on technical measures to improve the selectivity of fishing activities and addressing urgent issues such as the potential effects of climate change and pollution on fisheries.

Working Group on the Black Sea

25. Mr Simion Nicolaev, Coordinator of the Working Group on the Black Sea (WGBS), presented the intersessional activities on the basis of documents GFCM:43/2019/2 and GFCM:43/2019/Inf.7. He outlined in particular the activities of the BlackSea4Fish project, which had significantly enhanced the quality of advice and enabled the initiation of new work including the implementation of the rapa whelk (*Rapana venosa*) research programme.

26. The Commission praised the WGBS for its work and the considerable strides made also thanks to the BlackSea4Fish project. In particular, the project coordinator, Mr Ali Cemal Gücü, was commended for his crucial role.

Compliance Committee

27. Mr Randall Caruana, Chairperson of the Compliance Committee (CoC), cursorily highlighted compliance-related activities carried out during the intersession on the basis of documents GFCM:43/2019/4 and GFCM:43/2019/Inf.9, including the celebration of the International Day for the Fight against IUU Fishing (ID-IUU).

28. The Commission acknowledged with satisfaction the ongoing strengthening of the CoC.

29. The representative of Shark Trust recalled and applauded the ground-breaking recommendation adopted by the GFCM in 2012 and amended in 2018 to protect 24 shark and ray species, however voicing her concerns that, considering not all GFCM parties had transposed the decision into their national legislation, data were often poorly reported and monitoring and compliance were still weak.

Other strategic activities

30. The GFCM Secretariat reported on achievements such as the organization of the Fish Forum in December 2018, the publication of the second edition of the *State of Mediterranean and Black Sea Fisheries* (SoMFi 2018), including its abridged version in several languages, and the High-level conference on MedFish4Ever initiatives.

31. The Commission was extremely satisfied with the results of these other strategic activities that had been carried out with the support of CPCs such as the EU and Morocco, which hosted the High-level conference on MedFish4Ever initiatives, as these contributed to drastically improving visibility at the political and technical levels.

32. The significance of the Fish Forum was repeatedly underlined, as was the importance of capitalizing on this event, which the Commission agreed should not remain an isolated initiative. The delegate of Turkey commented that the GFCM had to be among the organizations stimulating a science-policy nexus. He stated his country wished to host the second edition of the Fish Forum in 2021, to be complemented by a ministerial session aimed at directly supporting the objectives of the UN Decade of Ocean Science for Sustainable Development (2021–2030).

33. The representative of OceanCare informed the Commission that her organization had proposed the Fish Forum as a best practice of science-policy interface to the UN General Assembly while reporting on ongoing cooperation with the GFCM.

MANAGEMENT OF MEDITERRANEAN AND BLACK SEA FISHERIES AND AQUACULTURE

Advice on aquaculture development

34. The GFCM Secretariat, on behalf of the CAQ Chairperson elect, presented the main conclusions and advice emanating from its technical activities on the basis of documents GFCM:43/2019/3 and GFCM:43/2019/Inf.8, touching also on the main pillars of the aquaculture strategy.

35. Recognizing the importance of the guidelines, in particular on alien species, the Commission expressed the need to ensure findings emanating from case studies for select species to be taken into account for their finalization.

36. The Commission reiterated the need to strengthen the activities undertaken in the ADCs and welcomed the concept of aquaculture observatories as brought up by the CAQ, stressing that they would be crucial for monitoring market developments, including innovation and other actions taken by different stakeholders. The Commission agreed to launch a feasibility phase for an aquaculture observatory on the Black Sea, noting that, upon successful completion of the testing phase, this new GFCM tool could be extended to the Mediterranean. This endeavour should be accompanied by an effort towards developing common methodologies on market data collection and transmission, which it was suggested could be enhanced by creating synergies between the Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM) and other relevant databases.

37. Referring to the outcomes of the last session of the CAQ, and tacking stock of in-session discussions, the Commission recognized that there was an urgent need to reorganize the modus operandi of the Committee in order to ensure effectiveness and delivery of sound results for the benefit of CPCs and the sustainable development of aquaculture. It was especially noted that issues such as the elaboration and validation of guidelines, use of indicators to monitor strategies, planning and prioritization of activities and launching of key actions should be addressed by a meeting of experts and decision-makers to extensively discuss on appropriate solutions and propose a way forward.

Fisheries management and conservation advice

38. The SAC Chairperson and the WGBS Coordinator, on the basis of documents GFCM/43/2019/2, GFCM:43/2019/Inf.7 and GFCM:43/2019/Inf.10, presented the advice related to the status of priority species, the management of select fisheries at the subregional level and data collection among others.

General status of Mediterranean stocks

39. The SAC Chairperson introduced the status of Mediterranean stocks noting the increased coverage of assessed stocks, including through five benchmark sessions and, in the case of small pelagics in the Adriatic, using year n-1 data for the first time. He also highlighted that technical elements for management had been prepared for approximately 50 percent of priority stocks when considering all subregions together and introduced the data quality analysis carried out as well as the proposed criteria for the submission of input data for stock assessment. He continued underlining that, overall, 11 percent of the stocks assessed were considered sustainably exploited while 80 percent of the stocks were considered to be outside biologically safe limits. In particular, European hake (*Merluccius merluccius*) was found to be the most exploited species in the Mediterranean and current measures (minimum landing size, mesh size, etc.) were found to have been ineffective at curbing overexploitation.

40. The delegates of the EU and Tunisia shared their concern for the alarming status of European hake in the Mediterranean, recalling that this situation had perpetuated over several years. Noting the adoption of an EU multiannual management plan for demersal fisheries in the western Mediterranean, which included a fishing effort regime and closure areas to protect juvenile hake, the delegate of Tunisia underlined the importance of extending the efforts made by the EU to all areas of the Mediterranean, making use of the information provided by the Working Group on stock assessment of demersal species (WGSAD) and implementing adequate technical measures. The delegate of Morocco supported the views expressed by other delegations but questioned whether management plans should instead be developed at the subregional level and suggested they be drafted for all priority species. The delegate of Algeria stressed the need to fill gaps in knowledge before adopting a final management plan.

41. The Commission recognized the critical status of European hake in the entire Mediterranean Sea and underlined the need to implement multiannual management plan(s) for this species at either the regional or subregional level and requested the SAC to provide technical inputs ahead of its next annual session.

42. The Commission endorsed the advice provided by the SAC, including on the submission of input data for stock assessment, the consolidation of the data quality assessment process, the need to focus on select priority species (including small pelagics in the Adriatic Sea, sardine [*Sardina pilchardus*] in the Alboran Sea and round sardinella [*Sardinella aurita*] in the eastern Mediterranean) during the next intersession and the need to provide/update technical elements for key fisheries towards full coverage. It was also agreed to launch a process for revising and updating the framework for the provision of advice and to continue taking precautionary measures to revert the general overfishing status of Mediterranean stocks.

European eel

43. The delegates of the EU and Tunisia underlined the migratory habits of European eel (*Anguilla anguilla*), stressing the importance of including extra-Mediterranean fisheries, countries and organizations in the GFCM work on this species. At the European level, the positive effects of Recommendation GFCM/42/2018/1 on a multiannual management plan for European eel in the Mediterranean Sea were already evident, with good results obtained in the fight against IUU fishing, but bridging gaps and coordinating available information still required substantial efforts. The delegate of the EU reiterated the will to provide support to Mediterranean countries towards the implementation of the research programme on European eel. The delegate of Turkey recalled that his country had enforced all the measures foreseen in Recommendation GFCM/42/2018/1 and was in the process of drafting a national management plan.

44. The Commission recognized the critical status of European eel as well as the positive effects of Recommendation GFCM/42/2018/1 and the importance of continuing work on this species, focusing on reducing fishing mortality, promoting habitat restoration, achieving good environmental quality and reducing pollution in rivers and lagoons. The Commission endorsed the contents of the proposed updated concept note for a research programme on European eel, reproduced in Appendix 22/A, and agreed to launch it in 2020.

Fish aggregating devices

45. Recalling Recommendation GFCM/42/2018/11 on the regional marking of fishing gear, and the need for sustainable management of fisheries using fish aggregating devices (FADs), the delegate of the EU introduced a proposal on a set of management measures for the use of anchored FADs in common dolphinfish (*Coryphaena hippurus*) fisheries in the Mediterranean. The proposal included a series of transitional measures to improve knowledge on these fisheries and the national measures in place, as well as measures related to the deployment and recovery of FADs, with the objective of mitigating the potential impacts of FADs and FAD fishing on the ecosystem. The measures also regulated the composition, identification, maintenance and retrieval of FADs.

46. The delegate of Tunisia supported the proposal and asked for the SAC to work towards drafting a management plan for this species.

47. The Commission adopted Recommendation GFCM/43/2019/1 on a set of management measures for the use of anchored fish aggregating devices in common dolphinfish fisheries in the Mediterranean Sea, as reproduced in Appendix 5.

Red coral

48. The delegate of the EU introduced a proposal on a management plan for the sustainable exploitation of red coral (*Corallium rubrum*) in the Mediterranean Sea. In doing so, she underlined the critical status of the species and reminded the Commission of a serious problem with IUU fishing and the lack of traceability. The proposal, which included a traceability system for the management of this species, was discussed with all relevant stakeholders considering both current and potential future fisheries. The measures foreseen in the management plan comprised classical control measures (authorized vessels/fishers, geolocation systems, an inspection scheme and landing sites) as well as a research programme and a pilot project for a catch certification system to ensure traceability from harvest to trade. Based on the outcomes of the research programme and on the assessment of transitory measures, the Commission would be then in a position to implement a long-term management plan.

49. The delegates of Algeria, Morocco and Tunisia all expressed their support for this proposal underlining the importance of conserving this resource in the Mediterranean, to the extent that Algeria and Morocco had stopped harvesting it in the past. The delegate of Turkey underlined the importance of ideally banning all red coral fishing; nevertheless, he expressed Turkey's support to the recommendation as a way to ensure a tight control of the fisheries.

50. The Commission adopted Recommendation GFCM/43/2019/4 on a management plan for the sustainable exploitation of red coral in the Mediterranean Sea and endorsed the updated concept note to implement the research programme on red coral, as reproduced in Appendixes 8 and 22/B, respectively.

Vulnerable marine ecosystems and deep-sea fishing

51. In line with its objective to avoid significant adverse impacts (SAIs) emanating from fishing activities and following the endorsement of the Protocols for the protection of vulnerable marine ecosystems (VMEs) in the GFCM area of application, including on encounter reporting and mapping of existing deep-sea fishing areas, the Commission recognized, at its forty-second session (FAO headquarters, Rome, Italy, October 2018), the need for a clear roadmap and timetable for action towards mapping existing deep-sea fishing areas, including through the collection of scientific information.

52. In light of this, the delegate of the EU introduced a proposal on the establishment of a set of measures to protect VMEs, underlining that the aim was a progressive implementation of transitional measures to prevent SAIs of deep-sea fishing activities on VMEs formed by cnidarian (coral) communities. As a first step, the proposed resolution required the collection of data in order to provide the SAC with an overview of existing VMEs towards formulating clear proposals for the protection of these areas as well as the elaboration of a roadmap.

53. The delegate of Tunisia noted that the area deeper than 300 m in the Mediterranean was vast and expressed doubts on the ability to adequately collect information over such an area, suggesting the area of application of this resolution should be better defined. The delegate of Morocco supported this comment.

54. After including a requirement for the SAC to define priority areas of investigation, the Commission adopted Resolution GFCM/43/2019/6 on the establishment of a set of measures to protect vulnerable marine ecosystems formed by cnidarian (coral) communities in the Mediterranean Sea, as reproduced in Appendix 18.

55. The representative of Oceana thanked the EU for its proposal, which was a first necessary step towards meeting the requirements of UN General Assembly Resolution 59/25, *Sustainable fisheries*, A/RES/59/25 and strengthening collaboration with UN Environment-MAP since the corals species considered were protected under Annex II of the Barcelona Convention. However, he pointed out that it did not include management measures such as move-on rules and that the protection of VMEs should apply to fisheries regardless of depth. He also regretted that no meeting of the Working Group on Vulnerable Marine Ecosystems (WGVME) was planned for 2020 and called upon the Commission to reconsider such planning.

Mapping of measures applicable to fisheries restricted areas

56. The delegate of the EU introduced a proposal on the mapping of measures applicable to fisheries restricted areas (FRAs) drafted as a result of discussions carried out within the SAC and the CoC. The resolution suggested carrying out an inventory of all active measures in existing FRAs and proposed that the Working Group on IUU fishing (WGIUU) draft a report on the implementation of these measures, to be discussed by the SAC and the CoC in 2020.

57. The delegates of Algeria, Morocco, Tunisia and Turkey expressed their support for the resolution stressing the importance of consolidating knowledge on the status of implementation of measures associated to existing FRAs. Delegations concurred on the need for national internal coordination in replying to requests for such information.

58. The Commission adopted Resolution GFCM/43/2019/1 on the mapping of measures applicable to fisheries restricted areas in the GFCM area of application, as reproduced in Appendix 13.

59. The representatives of IUCN, MedReAct and Oceana welcomed the resolution as a timely decision, in particular as some FRAs had been adopted more than 13 years ago, and urged the GFCM to take stock not only of existing measures relating to FRAs but also, to the extent possible, of negative anthropogenic impacts potentially hampering FRAs from attaining their conservation goals.

Blackspot seabream in the western Mediterranean

60. The Commission noted that blackspot seabream (*Pagellus bogaraveo*) in the Strait of Gibraltar was found to be overexploited and in overexploitation and was reminded of the transitional nature of Recommendation GFCM/41/2017/2 on the management of blackspot seabream fisheries in the Alboran Sea (geographical subareas 1 to 3) for a two-year transition period, pending the adoption of a management plan for this species. In consideration of this, the delegate of the EU outlined a proposal for a management plan for the sustainable exploitation of blackspot seabream in the Alboran Sea. She described a series of precautionary measures – including catch limits, effort reductions, the establishment of a 30 cm minimum conservation reference size – to be implemented for two years, after which they would be assessed in view of adopting long-term measures.

61. The delegate of Morocco expressed the willingness of his country to make efforts towards trialing these precautionary measures, assessing their implementation and moving on to other measures recommended by the SAC.

62. The Commission adopted Recommendation GFCM/43/2019/2 on a management plan for the sustainable exploitation of blackspot seabream in the Alboran Sea (geographical subareas 1 to 3), as reproduced in Appendix 6.

Demersal fisheries in the central Mediterranean

63. The stocks of both European hake and deep-water rose shrimp (*Parapenaeus longirostris*) continued to be in overexploitation despite their management being covered by Recommendation GFCM/42/2018/5 on a multiannual management plan for bottom trawl fisheries exploiting demersal stocks in the Strait of Sicily (geographical subareas 12 to 16), repealing Recommendations GFCM/39/2015/2 and GFCM/40/2016/4. The Commission endorsed the advice of the SAC to enhance the protection afforded to nursery areas as a direct way to achieve a reduction of fishing mortality and assess the effectiveness of current management measures. In addition, following the suggestion of the delegate of Tunisia, the Commission agreed on the need to advance on technical measures that would include the selectivity of shrimp and hake bottom trawling fisheries.

64. Following extensive work carried out in the intersession to advance towards the assessment and management of deep-water red shrimp in the central-eastern Mediterranean and in light of existing recommendations for the Levant and Ionian seas, the delegate of the EU introduced a proposal on management measures for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Strait of Sicily. She underlined that the proposal involved the implementation of transitional conservation measures including a freeze of fishing effort, a list of authorized vessels and control measures for catch.

65. The delegate of Tunisia noted that, owing to the lack of data on the resources and the fishery, a recommendation effectively establishing a management plan was premature and suggested the proposal be simplified.

66. Following the incorporation of the comments provided by Tunisia, the Commission adopted Recommendation GFCM/43/2019/6 on management measures for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Strait of Sicily (geographical subareas 12, 13, 14, 15 and 16), as reproduced in Appendix 10.

Small pelagic fisheries in the Adriatic Sea

67. Both sardine and anchovy (*Engraulis encrasicolus*) in geographic subareas (GSAs) 17 and 18 continued to be overexploited and in overexploitation. The Commission endorsed the proposal of the SAC to finalize the benchmark assessment and advance on the management strategy evaluation framework that provides advice on the potential biological and socio-economic effects of alternative management scenarios, in line with emergency measures. It also requested the SAC to provide a table describing the spawning period of these two species, towards the definition of common temporal closures, as requested by Recommendation GFCM/42/2018/8 on further emergency measures in 2019–2021 for small pelagic stocks in the Adriatic Sea (geographical subareas 17 and 18).

Demersal fisheries in the Adriatic Sea

68. Recently validated assessments of demersal stocks in the Adriatic Sea revealed an overall situation of overexploitation and the assessment of potential effects of alternative management scenarios underpinned possible management solutions. Based on this, the delegate of the EU introduced a proposal establishing a multiannual plan for sustainable demersal fishing activities in the Adriatic. Thus, the proposal foresaw limits on fishing effort and a freeze (or cap) on fleet capacity, as well as minimum conservation reference sizes for the main species, the protection of juvenile essential fish habitats (EFH), the creation of a working group to discuss on possible new FRAs, enhanced data collection and control measures (e.g. pilot inspection scheme, vessel monitoring system [VMS] and electronic logbooks), among other measures.

69. The delegate of Albania expressed a number of concerns on the proposal. In particular, he noted that the concept of an effort quota was new to this fishery and that it would have been important for fishers to be involved in consultations to facilitate the implementation of such measure. Furthermore, the requirement for the exploitation level of key stocks to be at maximum sustainable yield (MSY) by 2020 was unrealistic and suggested 2025–2026 as a more attainable goal. In addition, with respect to the yearly requirement to report data on fishing effort, he noted that the units of effort foreseen in the proposal (kw*days) were different from those collected and submitted through the GFCM Data Collection Reference Framework (DCRF) online platform (tonnes*days). With respect to fishing effort, he underlined that the average age of the Albanian fishing fleet was nearly double that of European fleets (40 years vs. 20 years), resulting in vessels with the same power (in kw) producing different impacts on the resource. The GFCM Executive Secretary recalled that the units of effort requested in the DCRF online platform emanated from Recommendation GFCM/41/2017/6 on the submission of data on fishing activities in the GFCM area of application.

70. The delegate of Montenegro praised the EU for paving a good way to the future and thanked them for understanding the situation of small countries such as hers when drafting the proposal. She further expressed her country's support for the recommendation and approved of the institution of new FRAs in the future.

71. Following the incorporation of the comments provided by the delegates of Albania and Montenegro, the Commission adopted Recommendation GFCM/43/2019/5 on a multiannual management plan for sustainable demersal fisheries in the Adriatic Sea (geographical subareas 17 and 18), as reproduced in Appendix 9.

72. The representative of MedReAct congratulated the EU for putting forward this proposal and welcomed the expressions of support for the future elaboration of spatio-temporal measures, hoping this would concretize soon in the establishment of new FRAs.

73. The representative of WWF acknowledged this recommendation as an important starting point for the conservation of demersal resources in the Adriatic Sea. However, he noted the fact that these resources were overexploited and that postponing the realization of MSY to 2026 was not in line with the urgent situation nor the objectives of the Malta MedFish4Ever Ministerial Declaration (MedFish4Ever Declaration).

General status of Black Sea stocks

74. The WGBS coordinator introduced the status of Black Sea stocks noting that, despite 100 percent coverage of Black Sea priority species, most assessed stocks were outside biological limits and data quality was for the most part only sufficient for the provision of qualitative precautionary advice.

75. The Commission endorsed the advice provided by the WGBS, including the need to increase data quality through the creation of a Black Sea regional database on input data for stock assessment and to enhance capacities in stock assessment towards better and more precise advice.

Turbot in the Black Sea

76. Based on the precautionary approach and taking into account the criteria for the allocation of the total allowable catch (TAC) as well as the quota allocation scheme agreed by the WGBS, the delegate of the EU introduced a proposal outlining a new annual TAC for turbot for three years. She described the provisions in case of quota excess or under-consumption and the development of a catch certification pilot scheme. She also underlined that the best mean to combat IUU fishing was to increase traceability.

77. The Commission adopted Recommendation GFCM/43/2019/3 amending Recommendation GFCM/41/2017/4 on a multiannual management plan for turbot fisheries in the Black Sea (geographical subarea 29), as reproduced in Appendix 7. The Commission also endorsed the advice of the WGBS to continue working towards the estimation of reference points and launch a regional survey-at-sea in support of the assessment of turbot and other demersal species.

Other Black Sea stocks

78. Given the critical status of piked dogfish (*Squalus acanthias*), the Commission agreed on the need to urgently implement management measures for this species. In addition, it decided to work towards the determination of a minimum conservation reference size for priority species, starting with red mullet (*Mullus barbatus*). It further concurred on the need to prepare elements for the management of European sprat (*Sprattus sprattus*) and to investigate the implementation of science-based catch limits.

Cetaceans

79. The delegate of the EU introduced a proposal on the conservation of cetaceans in the Mediterranean and the Black Sea, underlining the need to strive towards better data collection and reporting of information, in line with relevant recommendations in place and in order to facilitate the adoption of appropriate measures.

80. Following comments on the importance of improving knowledge and further promoting actions on cetacean conservation, in particular through advancements in fishing selectivity and mitigation techniques, the Commission agreed to adopt Resolution GFCM/43/2019/2 on enhancing the conservation of cetaceans in the GFCM area of application, as reproduced in Appendix 14.

81. The delegate of Morocco noted that, in parallel with the implementation of the resolution, an assessment of the abundance of cetaceans should be made, so that relevant measures could be more adequately tailored to the status of the different species, including by addressing depredation. Joint initiatives within the framework of the MoU with ACCOBAMS could pursue work towards identifying solutions for this latter issue, of particular concern along the Mediterranean coast of Morocco.

82. In recognizing the importance of the newly adopted resolution, the representative of WWF remarked that, considering the high bycatch rate of sharks in the GFCM area of application, it would be desirable to also collect information on sharks and to work towards the identification of mitigation strategies also for these species.

83. The representative of Shark Trust, on behalf of the Shark League for the Atlantic and Mediterranean, referred to the historic leadership demonstrated by the GFCM in adopting in 2018 the most stringent finning regulation of any regional fisheries management organization (RFMO) but cautioned that additional immediate action was required, in particular for Mako sharks (*Isurus* spp.). She underlined the need for consistency in decision-making and called for stronger cross-RFMO collaboration on the protection of Mako sharks, with particular reference to the International Commission for the Conservation of Atlantic Tunas (ICCAT) and requested that countries that were members of both organizations support relevant measures.

84. The delegates of Tunisia and Morocco stressed the importance of enhancing cetacean stranding networks at the regional level.

Small-scale fisheries

85. The GFCM Secretariat, on the basis of documents GFCM:43/2019/2 and GFCM:43/2019/Inf.15, presented the advice relating to the collection of data on small-scale fisheries (SSF), the elements for the management of SSF and the implementation of the Regional plan of action for small-scale fisheries in the Mediterranean and the Black Sea (RPOA-SSF).

86. In the ensuing discussion, it was noted that the definition of SSF differed among countries and that the need to agree on a regional characterization of SSF continued to be an important topic to resolve. Irrespective of the existence of a definition, the discussions underlined that SSF, while generally considered rather selective and environmentally friendly, still had an impact on resources and therefore there was a need to improve data collection and management, while also considering social and economic impacts on the fishers.

87. The Commission decided that countries should submit up-to-date and complete fleet registers, in line with Recommendation GFCM/33/2009/5 on the establishment of the GFCM regional fleet register, including relevant information on the fishing gear used, in view of facilitating data collection activities and better characterization of SSF. Furthermore, the Commission endorsed the use of the table of technical elements for SSF (Appendix 21) as a tool to provide guidance for intersessional work and ultimately to be taken into account when developing new management plans that involve SSF. With regard to the RPOA-SSF, the Commission endorsed the monitoring framework for assessing advances in implementing the RPOA-SSF, including the proposed indicators and associated questionnaire, as well as the list of priority actions and short-term objectives.

Fishing technology

88. Recalling the last meeting held in 2018, the delegate of the EU introduced a proposal for the Working Group on Fishing Technology (WGFiT). In presenting this proposal, she underlined the need for the WGFiT to work towards informing the SAC on concrete and directly implementable selectivity measures allowing to mitigate the adverse effects of fisheries on juvenile fish as well as discards and incidental catch of vulnerable and sensitive species (e.g. seabirds, cetaceans and sea turtles). The next meeting of the WGFiT would be aimed at providing practical advice on fishing selectivity in support of existing or new management plans implemented within the GFCM.

89. The delegates of Algeria and Tunisia strongly supported this proposal but expressed, to different extents, concerns on the need for a detailed work plan and for agreement on the priorities to ensure the outcomes of the work were tangible. They also underlined the lack of expertise on the subject in the region.

90. The delegate of Morocco highlighted that, considering expertise was scarce in the region, it would be important to facilitate training and capacity-building opportunities on fishing technology and selectivity, leveraging expertise in other regions of the world. Furthermore, he underlined the importance of focusing efforts on improving the selectivity of trawl nets, owing to the high bycatch rates of this gear. He proposed that, in order to work more efficiently during the intersession, the Commission should consider nominating a coordinator to facilitate this work.

91. After appointing Mr Ridha M'Rabet as coordinator, in light of his extensive experience in the field, the Commission adopted Resolution GFCM/43/2019/7 amending Resolution GFCM/41/2017/3 on the reactivation of the Working Group on Fishing Technology, as reproduced in Appendix 19.

92. The delegate of the EU, echoed by the representative of WWF, recalled the recently completed MINOUW project and noted that the experts of this project would stand ready to contribute their experience from various selectivity trials in the Mediterranean to this working group.

Single use plastic in GFCM meetings

93. In recognition of ongoing international efforts on fighting marine plastic litter, considering the particular susceptibility of the Mediterranean and the Black Sea to marine pollution and acknowledging the need to preserve the marine environment, the delegate of the EU introduced a proposal on a ban of single-use plastics in all GFCM meetings from 2020 onwards.

94. The Commission fully embraced the proposal and the Executive Secretary strongly invited all CPCs to also pursue such a commitment in their meetings at the national level.

95. The Commission adopted Resolution GFCM/43/2019/4 on the ban of single-use plastics in all GFCM meetings, as reproduced in Appendix 16.

96. The representatives of IUCN, Legambiente, MedReAct, OceanCare, Oceana, Shark Trust and WWF praised the EU for proposing and the Commission for adopting this resolution, underlining it was an excellent way for the GFCM to walk the talk of sustainability and it should be put forth as an example to be followed by other RFMOs.

Advice on compliance issues

97. The CoC Chairperson outlined the advice stemming from the Committee on the basis of documents GFCM/43/2019/4 and GFCM/43/2019/Inf.9.

98. The delegate of the EU referred to the need for greater transparency and noted that information on access agreements should be provided to the GFCM, consistent with the practice in other RFMOs. This would give a better view on fishing activities in the region.

99. The Commission adopted Recommendation GFCM/43/2019/7 on information on access agreements in the GFCM area of application, which is reproduced in Appendix 11.

100. The delegate of the EU recalled that the elaboration, update and approval of the GFCM IUU vessel list required streamlining. The procedure in place had been adopted ten years before and some amendments were desirable to take stock of developments in the fight against IUU fishing (e.g. listing of nationals and operators).

101. The Commission adopted Recommendation GFCM/43/2019/8 on the establishment of a list of vessels presumed to have carried out illegal unreported and unregulated fishing in the GFCM area of application, amending Recommendation GFCM/33/2009/8, which is reproduced in Appendix 12.

102. The delegate of the EU indicated that the existing assessment of compliance with GFCM decisions would benefit from a more analytical approach. The performance of CPCs should be evaluated based on compliance categories, each entailing different consequences towards the identification of non-compliance. Such an approach should draw on the principle of proportionality.

103. The delegates of Algeria, Egypt, Morocco, Tunisia and Turkey emphasized that CPCs were making great efforts to fully implement all GFCM decisions. Occasional non-compliance cases had to be differentiated from protracted violation of GFCM decisions and CPCs had to be given time to correct situations of non-compliance. The elaboration of sanctions appeared premature while an assessment of technical assistance to CPCs would be more in line with the proposed categorization.

104. The delegate of the EU acknowledged the consensus on the categorization of compliance cases. As for measures to deter situations of non-compliance, she proposed that these be discussed by the CoC at its next session.

105. The Commission adopted Resolution GFCM/43/2019/5 on a compliance assessment scheme for the implementation of Recommendation GFCM/38/2014/2 concerning the identification of non-compliance, as reproduced in Appendix 17.

106. The delegate of the EU stressed the importance of monitoring, control and surveillance (MCS) to counter IUU fishing in the GFCM area of application. Consistent with previous decisions of the Commission, a regional and centralized VMS should be implemented in a phased manner. Similarly, the electronic logbook should be tested by CPCs through voluntary pilot projects, given how advantageous its use was for fishers.

107. The delegates of Albania, Algeria, Lebanon, Morocco, Tunisia and Turkey looked forward to more technical work on MCS. The voluntary approach proposed through the participation in pilot projects, including on the electronic recording and reporting system (ERS), represented an opportunity for CPCs intent on testing MCS technologies. Nonetheless, caution, for the sake of confidentiality, was expressed on the transmission of data to the GFCM Secretariat.

108. The delegate of Egypt expressed his current concern for the establishment of a regional and centralized VMS. While his country stood ready to make further efforts to fully implement VMS, he underscored that the EU proposal was not binding on CPCs.

109. The delegate of the EU confirmed that financial assistance would be made available to the GFCM to support pilot projects with those CPCs willing to be involved. As part of this activity a cost analysis would be carried out.

110. The delegate of Tunisia, while underscoring the voluntary nature of the proposed pilot projects, called upon all CPCs to participate to the maximum extent possible.

111. The Commission adopted Resolution GFCM/43/2019/3 on the implementation of a vessel monitoring system and an electronic logbook in the GFCM area of application, which is reproduced in Appendix 15.

ISSUES STEMMING FROM THE COMPLIANCE COMMITTEE

112. The CoC Chairperson referred to other relevant issues stemming from the thirteenth session of the CoC.

Identification and clarification process

113. The Commission endorsed the advice by the CoC concerning the identification and clarification process and confirmed that Israel, Monaco and the Russian Federation would receive an identification letter during the intersession via official diplomatic channels. Other CPCs would receive a request for clarification, including a roadmap to detail efforts towards full compliance with GFCM decisions.

List of vessels presumed to have carried out illegal, unreported and unregulated fishing in the GFCM area of application

114. The provisional list of vessels presumed to have carried out IUU fishing in the GFCM area of application was presented, on the basis of document GFCM:43/2019/Inf.11.

115. The Commission endorsed the list and instructed the GFCM Secretariat to upload it on its website and disseminate it to other RFMOs.

VMS and related controls system

116. The Commission welcomed, in the context of efforts by CPCs to fully implement VMS at the national level, the progress being made in the operationalization of a regional pilot VMS and controls system. At the same time, having regard to the mandatory obligations upon CPCs to fully implement VMS, it urged them to do so within the shortest possible delay while continuing to cooperate in the context of the regional pilot VMS and control system.

Compendium of GFCM decisions

117. The Commission praised the work of the GFCM Secretariat on the Arabic version of the Compendium of GFCM decisions and mandated it to proceed with its finalization.

International Day for the Fight Against IUU Fishing

118. The delegates of Algeria, EU, Morocco and Tunisia advocated for the involvement of professional associations and fishers in the celebration of the ID-IUU so that best practices could be reviewed and awarded relative to their contribution to sustainable fisheries.

119. The Commission supported this proposal and invited the Secretariat to involve further representatives from the sector. This could be done by calling upon CPCs to celebrate the ID-IUU at the national level and by submitting relevant information, based on inputs they gathered, to the GFCM Secretariat for communication purposes (e.g. videos disseminated via media channels).

OUTCOMES OF THE SECOND GFCM PERFORMANCE REVIEW

120. Ms Fuensanta Candela Castillo, coordinator of the independent performance review panel, presented, on the basis of document GFCM:43/2019/8, the findings in the report of the second GFCM performance review, carried out in line with the criteria adopted by the Commission at its previous session. The panel had appraised significant progress by the GFCM in different areas (e.g. decision-making, subregional approach, capacity-building, etc.) since its first performance review, although weaknesses still existed in GFCM performance (e.g. control and enforcement, integration of issues such as climate change and pollution, etc.).

121. Several delegations signaled their strong appreciation for the work carried out by the panel, which pointed overall to decisive progress and a more dynamic Commission. On the other hand, some concerns were voiced on the evaluation process as the panel could have considered involving stakeholders from the fishery sector, in addition to national administrations. In terms of follow-up actions to be launched on the basis of the report, a listing of a few main conclusions versus the high-number of recommendations put forth might have been of greater help to CPCs in agreeing on the way forward. Not only were CPCs in need of more time to consider the extensive report prepared by the panel but they were also eager to submit their views on it. This had not been possible before the session of the Commission given the timing of the submission of the report.

122. The GFCM Executive Secretary, from his part, conveyed some views on the report prepared by the Secretariat, mainly to point out a few inaccuracies spotted throughout the text (e.g. on the assessment of performance of GFCM staff).

123. The coordinator was willing to liaise with the panel and to review the report as far as supposed inaccuracies went and provided that these affected the validity of the recommendations put forth. Nonetheless, she suggested that it was for the Commission to look at the practice of other RFMOs in order to understand how to follow up on the recommendations presented in the report. In some cases, the relevant subsidiary bodies of RFMOs had been requested to examine the recommendations relating to their mandate and provide advice to their governing bodies.

124. The delegates of Algeria, EU, Morocco and Tunisia cautioned against taking hasty decisions on the course of action to be followed. In their view, more work should be done during the intersession for the Commission to come to an informed decision on the outcomes of the second GFCM performance review. The intersessional meeting of the Commission on the post-2020 strategy would be a fitting occasion to arrange consultations among CPCs.

125. The GFCM Executive Secretary suggested that this could be achieved by starting with the preparation of a very short analytical summary of the report, in English and French, accompanied by a two-column table singling out the main conclusions and proposing follow-up actions. This document could be prepared by a consultant familiar with the report, possibly a member of the panel, if available. Subsequently, the document would be distributed to the CPCs ahead of all relevant intersessional meetings, including the meeting on the functioning of the CAQ as well as the intersessional meeting of the Commission on the post-2020 strategy. This course of action would contribute to the formulation of advice relating to the follow-up on the second GFCM performance review, to be validated at the intersessional meeting of the Commission on the post-2020 strategy and submitted to the next annual session of the Commission.

126. The Commission seconded the proposal of the Executive Secretary and reiterated its utmost gratitude to the panel for the excellent quality of the work done.

127. The delegate of the Russian Federation expounded that fisheries and aquaculture in the Black Sea were extremely important for his country and currently threatened by several different issues. There was therefore a need for joint actions. He reiterated the proposal by the Russian Federation, already put forth on the occasion of the High-level conference on Black Sea fisheries and aquaculture (Bulgaria, June 2018) to amend the GFCM Rules of procedure in order to endow the WGBS with more autonomy.

PROGRAMME OF WORK FOR THE PERIOD 2019–2021, INCLUDING DISCUSSION TOWARDS THE POST-2020 STRATEGY

128. The Commission was informed of the work programme proposed by its subsidiary bodies during the intersession, emanating from strategic activities and from new decisions adopted during the session. The programme of work was endorsed as follows:

CAQ and WGBS (aquaculture)

Activities related to governance and regulatory aspects (Target 1)

- Continue to work on the monitoring system to follow progress in the implementation of the strategy through the use of adopted indicators.
- Continue to work on capacity-building and training to support Mediterranean and Black Sea riparian countries in achieving effective implementation and management of sustainable aquaculture in the context of marine spatial planning.
- Launch activities to enhance the regulatory framework to boost investment in aquaculture sector through dedicated technical consultation among selected stakeholders.
- Analyze the results of the regional survey to assess the social acceptability of aquaculture and finalize the related guidelines.

Activities related to environment and aquatic animal health (Target 2)

- Finalize the guidelines on alien species and on restocking, and implement, when appropriate, a subregional pilot study or a research programme.
- Establish a programme to support Mediterranean and Black Sea countries in disease analysis and prevention, including support for the early diagnosis of pathogens in fish farms.

- Continue to work on assessing opportunities for the development of integrated multi-trophic aquaculture (IMTA).
- Develop a programme to implement innovative farming technology with particular attention to smart aquaculture (e.g. recirculating aquaculture systems, cages, aquaponics, biofloc fish farming and farming of algae) as response to climate change while taking into account that family farms are the most vulnerable sector.
- Organize a demonstrative pilot field study including a training to establish allocated zones for aquaculture (AZAs) in the Black Sea area.
- Carry out a regional training on environmental monitoring programme (EMP) variables to be monitored (water column and sediment) as well as on sampling methodology in light of new scientific knowledge and best practices available.
- Establish an aquaculture risk analysis core team for the Mediterranean and the Black Sea area focusing on control of pathologies and including prevention aspects and biosecurity.

Activities related to quality and market of aquaculture products (Target 3)

- Perform a regional analysis on value chain for European seabass (*Dicentrarchus labrax*), gilthead seabream (*Sparus aurata*) and mussels (*Mytilus galloprovincialis*) aquaculture products.
- Carry out a regional survey to assess small-scale and family-run aquaculture farms in the Mediterranean and the Black Sea with a view to identifying priorities and issues to be addressed (administrative, environmental, economic and social).
- Prepare a project for the establishment of an Observatory of aquaculture in the Black Sea with possible coverage to the Mediterranean.
- Prepare a special document on the state of Mediterranean and Black Sea aquaculture.
- Prepare a manual on a data collection system according to the new provisions established by the GFCM on aquaculture production statistics, production centres and market data.

Information System for the Promotion of Aquaculture in the Mediterranean

- Continue to assess and ensure the consistency of data submitted by CPCs in accordance with Recommendation GFCM/41/2017/1 on the reporting of aquaculture data and information repealing Recommendation GFCM/35/2011/6.
- Follow progress in aquaculture data collection (production centres, production statistics and market data).
- Further enhance online data consultation facilities on the SIPAM online platform.

Other priorities

- Establish new ADCs at the subregional level in the Black Sea and the Mediterranean.
- Continue collaboration with the GLOBEFISH project of the Products, Trade and Marketing Branch (FIAM) of FAO Fisheries and Aquaculture Department on issues connected to social acceptability within the framework of the Mediterranean Aquaculture Integrated Development (MedAID) project.
- Continue collaboration within the MedAID and Integrating Innovative Approaches for Competitive and Sustainable Performance across the Mediterranean Aquaculture Value Chain (PerformFISH) projects, in particular with their networks of experts.
- Provide technical assistance on the implementation of EMP to foster national capacity-building on the use of the EMP within AZAs.

- Implement a research programme on the impacts of alien species, in particular shrimp, on autochthonous species.

SAC and WGBS (fisheries)

Regional issues

Stock assessment and strengthened advice

- Compile relevant information on priority species towards increasing the coverage of stock assessment for these species and carry out selected priority benchmark assessments (Appendix 23/A), including data preparation, and when relevant following the proposed work plans, to ensure that 100 percent of priority stocks are assessed, in line with the MedFish4Ever Declaration.
- Revise the framework for the provision of advice.
- Continue supporting the implementation of harmonized scientific surveys-at-sea.
- Continue compiling socio-economic fisheries data, including on SSF.
- Develop robust management strategy evaluation (MSE) frameworks that can be applied to a variety of fisheries and data availability situations, with particular focus on fisheries under or for which a management plan is being discussed (terms of reference in Appendix 24/A).
- Conduct training activities to increase the capacity in the subregions in using stock assessment models and/or quantitative assessments of management scenarios, including on the use of socio-economic models and across a number of assessment models.
- Provide/update technical elements for key fisheries at subregional/regional scale, including indications for the particular case of European hake.

Fisheries data collection and quality indicators

- Work on the consolidation of the use of quality indicators on the DCRF online platform for fisheries data as requested through existing GFCM decisions, in line with the work programme as proposed in Appendix 23/D.
- Finalize both the update of the DCRF manual and the release of data transmission tools on the DCRF online platform for those reporting requirements which have been harmonized with the DCRF.

Sustainable small-scale and recreational fisheries, including priority actions for the implementation of the RPOA-SSF

- Expand testing of the characterization matrix at national levels, following the refined common methodology and based on a representative sample, and organize a session for data validation, according to Appendix 23/B.
- By 2021, produce a full analysis of the socio-economic characteristics of SSF.
- Analyze the current status of SSF fleet registries in all GFCM countries detailing the information compiled and suggesting common minimum variables required to provide advice on issues included in the RPOA-SSF.
- Launch a multi-year “SSF University” capacity-building programme for fishers and other stakeholders (Appendix 23/C) in line with the RPOA-SSF.
- Compile existing studies on the interactions between SSF and recreational fisheries and propose a work plan for addressing these interactions.
- Pilot the Handbook for data collection on recreational fisheries in the Mediterranean and the Black Sea in Lebanon, Tunisia and Turkey, as well as in other select countries, as appropriate. Update the handbook, as necessary, according to feedback from the pilot studies.

European eel

- Launch the research programme on European eel in the Mediterranean Sea according to Appendix 22/A and work according to the chronogram suggested in the concept note.

FAD fisheries for common dolphinfish

- Provide technical elements for the development of a multiannual management plan for common dolphin fish that comprises measures for the management of FADs for common dolphinfish fisheries.
- Establish a research programme to assess the state of common dolphinfish and define FAD management measures.
- Assess the impact of FADs and other fishing gear on meeting MSY for common dolphinfish annually starting from 2020.

Red coral fisheries

- Launch the research programme on red coral in the Mediterranean Sea according to Appendix 22/B and, in particular, address the issue of IUU fishing.

IUU fishing

- Support the implementation of activities 1–3 of the work plan for the estimation of IUU fishing and pilot the survey on IUU fishing.

Interactions between fisheries and the marine environment and ecosystems

Vulnerable marine ecosystems and essential fish habitats

- Identify priority areas for the collection of data on VMEs.
- Compile information on the distribution and abundance of VME indicators towards populating the GFCM database on sensitive benthic species and habitats, in line with the proposed terms of reference of the integrated expert group on spatial measures addressing vulnerable and essential fish habitats (WGVME-EFH – Appendix 24/B), to address the requests of Resolution GFCM/43/2019/6.
- The WGVME shall, in 2021, analyze data, identify VMEs and reflect on additional measures.
- Advance in the implementation of the roadmap towards a network of EFH, including the production of composite observation-based EFH maps for some GFCM priority species.

Underwater noise

- Carry out a study on the impact of anthropogenic underwater noise on fish stocks and fishing catch rates, as well as associated socio-economic effects, in collaboration with OceanCare.

Bycatch, depredation and fishing technology issues

- Finalize a regional review on the current state of bycatch in the GFCM area of application.
- Keep on implementing, with relevant partners, the bycatch and depredation monitoring programmes and related training activities.
- Work towards the identification of suitable selectivity measures for selected fisheries and gear.
- Implement the work plan proposed for the WGFiT under Resolution GFCM/43/2019/7.

Cetaceans

- Compile, assess and evaluate, in line with the requests of the different working groups, all available data, information and actions provided under Recommendation GFCM/36/2012/2 on mitigation of incidental catches of cetaceans in the GFCM area of application through the DCRF or any other source of information in accordance with the conclusions of the working groups.

- Report progress on the conservation of cetaceans.
- Compile information about available fishing technology and selectivity measures to improve cetacean conservation status.

Advances towards an adaptation strategy for climate change and non-indigenous species

- Carry out a vulnerability assessment of Mediterranean fisheries to climate change in relevant subregions, in line with the conclusions emanating from the Fish Forum 2018.
- Continue the compilation of information on the presence, abundance and distribution of non-indigenous species (NIS), in particular in western and eastern Mediterranean using the different observation platforms included in the monitoring plan endorsed (e.g. surveys-at-sea, observers on board, analysis of catches, etc.) and paying special attention to the interaction with SSF, including through participatory approaches and the use of LEK questionnaires. Prioritize work on blue crab and pufferfish.

Subregional issues

Western Mediterranean

- Continue ongoing activities on the benchmark of sardine and European hake in the Alboran Sea.
- Continue work on blackspot seabream towards the implementation of management measures according to the technical elements in Appendix 20 and assess the efficiency of management measures towards the adoption of long-term management measures.
- Finalize, as appropriate, the first phase of the monitoring programmes on discards and/or incidental catches of vulnerable species through observers-on-board and perform data analysis.
- Implement the depredation project, jointly with ACCOBAMS, with specific focus on the interactions between purse seiners and bottlenose dolphin (*Tursiops truncatus*) in Morocco.

Central Mediterranean

- Advance on the definition of deep-water red shrimp fishing grounds.
- Review the updated background technical document in support of the management plan for bottom trawl fisheries for deep-water blue and red shrimp and giant red shrimp, in the eastern-central Mediterranean (GSAs 12–16 and GSAs 19–27), by the 2020 Subregional Committee for the central Mediterranean.
- Advance towards the identification of nursery areas in the Ionian Sea for deep-water blue and red shrimp and giant red shrimp and also on the nursery areas of European hake and deep-water rose shrimp in the Strait of Sicily.
- Work on technical measures, including selectivity, for deep-water rose shrimp and European hake bottom trawl fisheries.

Adriatic Sea

- Continue with the monitoring plan for the Jabuka/Pomo Pit.
- Finalize benchmark for Adriatic small pelagics, including a revision of the reference points.
- Compile a table describing the spawning periods of sardine and European anchovy towards the definition of common temporal closures.
- Examine the possibility of establishing new FRAs in the northern and southern Adriatic, in line with Recommendation GFCM/43/2019/5, based on the conclusions of the working group established by the recommendation.
- Review and update the technical elements for the management of small pelagic species, in line with the terms of reference included in Recommendation GFCM/42/2018/8.

Eastern Mediterranean

- Advance on the definition of deep-water red shrimp fishing grounds.
- Review the updated background technical document in support of the management plan for bottom trawl fisheries for deep-water blue and red shrimp and giant red shrimp in the eastern-central Mediterranean (GSAs 12–16 and GSAs 19–27), by the 2020 Subregional Committee for the Eastern Mediterranean.
- Advance towards the identification of nursery areas in the eastern Mediterranean for deep-water blue and red shrimp and giant red shrimp.

Black Sea

- Draft technical elements in support of management for piked dogfish and for the determination of minimum conservation reference sizes for red mullet.
- Collaborate in the context of the CeNoBS project towards monitoring cetacean bycatch in the Black sea, in particular concentrating on the potential identification of mitigation measures.
- Improve the quality of data, including through the creation of a Black Sea subregional scientific database.
- Improve the description of the direct and indirect fisheries affecting piked dogfish, including the spatial distribution of fishing effort and catches, and the existence of complementary/seasonal fisheries.
- Continue compiling information on rapa whelk abundance, distribution and length, and evaluate the possibility of providing age estimations.
- Continue improving the estimation of bycatch of priority species, including through a collaboration in the context of the CeNoBS project towards monitoring cetacean bycatch.
- Estimate reference points for Black Sea turbot and launch a regional survey-at-sea in support of the assessment of turbot and other demersal species.
- Investigate the implementation of science-based catch limits for sprat.

CoC (compliance)

- Continue the identification and clarification process, including new cases of non-compliance/concern for potential new cases of non-compliance, based on compliance categories.
- Continue with the testing of data quality indicators.
- Update the GFCM IUU vessel list.
- Progress in the implementation of the RPOA-IUU towards the harmonization of national legislation and the transposition of GFCM recommendations by CPCs.
- Address issues relating to certification schemes in the context of the WG-IUU.
- Submit standard format to CPCs to request information on access agreements and disseminate such information through the CoC.
- Contribute to the celebration of the ID-IUU in 2020, with a focus on Mediterranean and Black Sea best practices.
- Prompt the participation in voluntary pilot projects on MCS, including the use of electronic logbook.
- Continue the operationalization of a regional pilot VMS and control systems, including the monitoring of FRAs via the mapping of existing national measures.

- Address, in the context of the WGVMS, issues relating to the future establishment of a regional VMS and control systems on the basis of national systems (in place and being established).
- Promote and participate in training on inspectors and joint inspection initiatives, as relevant.
- Streamline the provision of technical assistance to CPCs in support to compliance and evaluate its effectiveness.
- Advance the implementation of the GFCM roadmap for the estimation of IUU fishing.
- Keep abreast of developments relating to measures to fight IUU fishing at global and regional level.

Meetings

129. The Commission approved the following meetings, and related terms of reference as reported in Appendix 24, some of which would be subject to human resource capacity, to the application of any new FAO administrative rule and circular and to the availability of funds. Note was taken of the kind offer by some CPCs to host meetings of the subsidiary bodies, subject to confirmation by their competent authorities.

| SAC/WGBS meetings | Place/Date |
|--|--|
| WGRF | Algiers, Algeria 17–20 March 2020 |
| SRC-WM | |
| WGFiT | Tunis, Tunisia 30 March–3 April, 2020 |
| SRC-CM | |
| Follow-up meeting for the benchmark assessments of anchovy and sardine in the Adriatic Sea | Split, Croatia 21–24 April 2020 |
| Benchmark assessment for round sardinella | Lebanon 4–9 May 2020 |
| SRC-EM | |
| SRC-AS, including a session on the establishment of Adriatic FRAs | Split, Croatia 26–28 May 2020 |
| Twenty-second session of the SAC, including a side event for the validation of data on the characterization of SSF (TBD) | Beirut, Lebanon, 23–26 June 2020 |
| SGSABS benchmark session for Black Sea anchovy (preceded by data preparation) | Trabzon, Turkey 13–17 July 2020 |
| SGSABS, including meeting on the estimation of biological reference points for Black Sea fish stocks | Trabzon, Turkey 20–24 July 2020 |
| Ninth meeting of the WGBS | Burgas, Bulgaria, 30 September–2 October 2020 |
| WGSAD-WGSASP | FAO HQ, Rome, Italy 30 November–4 December 2020 |
| Technical consultation on bycatch | Greece February 2021 |

| CoC meetings | Place/Date |
|--|---------------------------|
| Working group on IUU fishing, including a session on the clarification process | Cyprus, 12–15 May 2020 |
| Working group on VMS and control systems | |
| Fourteenth session of the CoC | |

| CAQ meetings | Place/date |
|---|---|
| Meeting on the role of farmers and farmer organizations to share knowledge on aquaculture good management practices | Pordenone, Italy 19–20 February 2020 |
| First technical consultation of stakeholders on aquaculture investment in the Black Sea | Rabat, Morocco 24–25 March 2020 |
| Meeting on the functioning of the CAQ | Rabat, Morocco 26 March 2020 |
| Technical meeting on aquaculture market data collection: common approach and procedures | Tunis, Tunisia 8–9 September 2020 |
| Meeting for the establishment of an Aquaculture Observatory for the Black Sea | Trabzon, Turkey 15–16 September 2020 |
| Workshop on early diagnosis in protecting the aquaculture industry from disease | Lebanon, TBD 2021 |
| Twelfth session of the CAQ | Morocco, 2021 |

| GFCM/Strategic meetings (Transversal meetings) | Place/Date |
|---|--------------------------------------|
| Intersessional meeting on the strategy post-2020 | Algiers, Algeria, 9–10 June 2020 |
| Black Sea Conference | Georgia TBC, 5–6 October 2020 |
| Forty-fourth session of the GFCM | Tirana, Albania 2–6 November 2020 |
| Second Forum on Fisheries Science (Fish Forum) | Turkey 2021 |
| Follow-up conference on MedFish4Ever initiatives | Greece 2021 |

130. The Commission agreed, following an intervention by the delegate of Lebanon, to ensure a follow-up to the concerted action for Lebanon initiative in coordination with the FAO in view of gathering, *inter alia*, interested donors and stakeholders. The Commission was reminded that data preparation meetings needed to be organized, with the FAO regional projects, before benchmark sessions for Mediterranean stocks and, with the BlackSea4Fish project, ahead of stock assessment meetings for Black Sea stocks. In addition, the Commission took note of the SSF university programme, which entailed the organization of stakeholder workshops in 2020. It also took note of the proposal by the delegate of Italy to organize a Blue Day conference in close cooperation with the GFCM. The organization of an international symposium on red coral, planned for 2022, was also welcomed.

131. The Commission acknowledged the interest of several CPCs, namely Algeria, Bulgaria, Egypt, Lebanon and Tunisia, in establishing ADCs in their respective countries and recalled the need to follow the appropriate agreed procedures in making these requests. In recognition of the strategic role played by the ADCs in the future work of the CAQ towards enabling enhanced knowledge on select thematic topics at the regional level, it was agreed to further consider this issue during the meeting on the functioning of the CAQ.

132. The Commission discussed the need to move towards management plans for the full list of GFCM priority species and suggested a specific session be foreseen within the subregional committees in order to prioritize on those stocks needing urgent action and for which there is sufficient information to develop technical elements for the consideration of the next SAC session.

133. In the context of capacity building, the delegate of the EU stressed that training should be carried out on reliable stock assessment models that would help achieve 100 percent coverage of priority species and that all CPC scientists would be able to use and understand, thus ensuring achievement of the targets of the MedFish4Ever Declaration on advice and reaching MSY. He stressed that the EU fully believed in the independence of science, nevertheless underlining that the use of highly complex models, such as integrated assessments, had a high cost in terms of resources while results were not substantially different from those emerging from classical statistical models.

134. The delegate of Tunisia, echoed by the delegate of Albania, stressed that the choice of models should be a decision of the scientists, within the framework of the SAC. The delegate of Morocco highlighted that it was well known that the majority of stocks were overexploited and that courage was needed to adopt immediate measures to address this situation. He supported the need to provide advice for all key stocks, and stressed that Morocco's scientists had the data and expertise to develop the models needed, simple or not. He further remarked that other countries, in case they lack data or expertise, should apply models best suited to their expertise and use all available data towards ensuring the provision of advice required to take decisions.

135. The representative of WWF, in recalling the commitments made through the adoption of the MedFish4Ever Declaration, underlined that the SAC should be able to produce advice for 100 percent of priority species, in order to support proper decision-making. He also stressed that to effectively implement the RPOA-SSF, priority species for SSF should be identified and assessments should be extended to those species as well. Together with LIFE and MEDAC, as members of the Friends of SSF platform, he underscored that efforts to manage SSF risk being undermined by unreported and unregulated recreational fisheries and, as such, there was a need to advance on the assessment of recreational fisheries in the region and address conflicts with the SSF sector.

136. In underlining the milestone achieved by providing advice on the status of Black Sea turbot in 2019 based on data year n-1, the delegate of the EU remarked the importance of doing the same for all priority species in the Black Sea. It was agreed that all possible efforts would be deployed to work towards this objective, including by the GFCM Secretariat for logistical aspects, in consultation with CPCs and with experts responsible for ensuring the availability of data in advance of the relevant meetings.

137. In highlighting the success of the mid-term strategy in attracting funds to support the work of the GFCM, the delegate of the EU stressed the need to prepare a new strategy that would build on achievements and ensure continuity with the work of the previous strategy. She proposed the GFCM Secretariat prepare a background document in advance of the intersessional meeting on the strategy post-2020, assessing the progress made in relation to the different mid-term strategy targets and compiling the views of CPCs and partners, including those expressed at the recent High-level conference on MedFish4Ever initiatives. Such document would be compiled following a structure similar to that of the previous strategy and be put at the disposal of CPCs at least a month in advance of the meeting. This proposal was endorsed by the Commission.

138. The representative of Oceana introduced a document compiling information on existing legal references for 15 GFCM priority species where a minimum conservation reference size was defined in select areas. He recalled that the GFCM had established a minimum conservation reference size at the regional level for European hake only, and urged CPCs to set the adoption of a minimum conservation reference size for all priority species and across all Mediterranean subregions as an objective for the post-2020 strategy, also taking into account the information contained in the *Atlas of the maturity stages of Mediterranean fishery resources* (GFCM Studies and Reviews 99). He called upon the GFCM to give mandate to the SAC to provide advice in this respect.

TENTH SESSION OF THE COMMITTEE ON ADMINISTRATION AND FINANCE

Administrative and financial issues, including staffing

139. The tenth session of the CAF was called to order by its Chairperson, Mr Roman Čičmirko, who delivered, jointly with the GFCM Executive Secretary, two presentations on expenditure reviews in 2018 as well as on administrative and financial issues during the intersession, on the basis of documents GFCM:43/2019/5 and GFCM:43/2019/6. The topics covered included the activities undertaken in 2018 through the autonomous budget and extrabudgetary funds, the functioning of the GFCM Secretariat and filling of staff positions, the management of GFCM headquarters, meetings, publications and the payment status of contributions to the autonomous budget by contracting parties.

140. The CAF Chairperson summarized the financial situation, indicating that the annual contributions received in 2018 from contracting parties amounted to 89.90 percent of the adopted autonomous budget, in addition to arrears received. He informed that the cash accrual totalled USD 960 826 and that accumulated outstanding contributions for fiscal years 2005–2018 exceeded USD 1 million. After illustrating expenditures by chapter of the autonomous budget and extrabudgetary funds, the CAF Chairperson indicated that there was a positive balance in both cases.

141. The GFCM Executive Secretary informed the Committee on recent advances in internal procedures for the recruitment of staff. Mr Gheorghe-Cristian Tanase (Romanian national) was appointed as GFCM Security Guard (G-2), the post of Office Assistant (G-4) was filled by Ms Oksana Balashova (Ukrainian national) while Ms Dragana Popmihajlov (Croatian national) was appointed Office Assistant at G-3 level. The Office Assistants positions for the GFCM subregional technical units in Malaga and Burgas had been advertised and were expected to be filled soon. Finally, Mr Miguel Bernal (Spanish national) had recently been appointed as Senior Fishery Officer (P-5).

142. The delegate of the EU commended the clarity and transparency of the reports submitted to the attention of delegations, as they helped better understand how the Commission's resources were used. Following her intervention stressing that the hard work and merit of staff of the GFCM Secretariat needed to be recognized, the Commission unanimously supported the principle of career progression for GFCM Secretariat staff. It, furthermore, requested the GFCM Executive Secretary to explore any possible options with FAO relevant units to ensure this career progression be materialized as soon as possible.

143. The multiple and diverse activities carried out during the intersession pointed to the importance of extrabudgetary funds in implementing priority and strategic actions for the GFCM. In this regard, the delegate of the EU, as main donor, stressed how crucial the development of a new strategy after the current one was to keep on securing such funds, adding that synergies with the FAO Mediterranean regional projects, also recipients of EU funding, should continue being promoted for the sake of good financial management, avoiding duplications and integrating efforts.

144. CPCs were reminded of the importance to remit their contributions as soon as possible at the beginning of the year and to settle any arrear. In particular, for the case of arrears, the Committee expressed concern about some critical outstanding contributions, in particular from Libya and Monaco, and requested the GFCM Secretariat to pursue efforts with all relevant counterparts for the remittance of unsettled payments.

GFCM budget and contributions by contracting parties for 2019–2021

145. The Executive Secretary presented, on the basis of document GFCM:43/2019/7, a budget proposal for 2020 and 2021 for the consideration of the Committee, including the forecast contributions from contracting parties for the same period.

146. It was recalled that the autonomous budget for 2020 and 2021 had been object of a meeting of the heads of delegations of contracting parties, where the GFCM Secretariat was requested to revise the proposal available in document GFCM/43/2019/5, limiting the budget increase to a maximum of 3 percent compared to 2019. On the same occasion, it was agreed to give mandate to the GFCM Executive Secretary to optimize human and financial resources of the GFCM Secretariat (including subheadings pertaining to the functioning of the latter) within a short time from now in order to appropriately adapt to given thresholds.

147. The GFCM autonomous budget for 2020 and for 2021, amounting to USD 2 611 142 yearly, was adopted as shown in Appendix 25/A and 26/A. Expected contributions due by contracting parties for 2020 and 2021 are presented in Appendix 25/B and 26/B.

Issues related to the mandate of the GFCM Executive Secretary

148. At the meeting of the heads of delegations, contracting parties were briefed on the procedures and formalities applied for the selection and appointment of the GFCM Executive Secretary since the establishment of the position in 2004. They were also informed that interim arrangements were currently in place at the level of FAO, which foresaw a selection process similar to that of Senior Officers (P-5 level) through a vacancy announcement. The GFCM Executive Secretary clarified that he had been instructed by the FAO to report to the Commission that the GFCM procedure for the selection of the Executive Secretary had to be put on hold until FAO Governing Bodies took a final decision on this matter.

149. Several contracting parties intervened to commend the outstanding performance of the GFCM Executive Secretary and acknowledge the positive trend witnessed in the last decade under his leadership. The Commission expressed the wish to keep the GFCM procedure in place and asked the Executive Secretary to follow up with the Director-General on this subject. It was expected that the forty-fourth session of the Commission in 2020 would be informed on the final process and agree upon the professional requirements and experience needed for this position. Contracting parties also agreed to ensure follow-up on this important matter, including through their respective representatives to FAO.

150. The Commission decided to hold the selection of the next GFCM Executive Secretary during the forty-fifth session of the Commission, to be tentatively held in October/November 2021, and agreed on a four-month hand-over period after the appointment of the new Executive Secretary by the Director-General.

ENDORSEMENT OF THE NEW BUREAU OF CAQ AND WGBS AND RENEWAL OF THE COC BUREAU

151. The Commission expressed its deepest gratitude to the outgoing CAQ and WGBS Bureau members. In particular, the outstanding and dedicated efforts of Mr Simion Nicolaev since the first meeting of the WGBS in 2012 was applauded. It endorsed the new CAQ Bureau, composed of Mr Ibrahim Al Hawi (Lebanon) as Chairperson, Mr Mohammed El Araby (Egypt), as first Vice-Chairperson, and Ms Ilaria Ferraro (Italy) as second Vice-Chairperson. The new WGBS Bureau was also endorsed, namely Mr Galin Nikolov (Bulgaria) as WGBS Coordinator and Mr Ilhan Aydin (Turkey) and Mr George Tiganov (Romania) as first and second Vice-Coordinators, respectively.

152. In addition, the Commission agreed to renew the mandate of the CoC Bureau for an additional two years.

ANY OTHER MATTER

153. The representative of Shark Trust presented, during a dedicated side event, a regional action plan for Mediterranean angel sharks (*Squatina* spp.). She noted that this plan sat within a wider eastern Atlantic and Mediterranean angel shark conservation strategy providing a framework for improved protection and guiding future research, management, policy and conservation actions. She encouraged all GFCM parties to raise awareness at the national level on the critically endangered status of these species and clarified that there was a need to better understand their characteristics before moving towards a more integrated approach.

154. The roadmap presented was welcomed, recalling the guidelines prepared by the GFCM on the identification and handling of incidentally caught vulnerable species, and Shark Trust was invited to present the data and information collected to the relevant SAC subregional committees in order to improve understanding of the threats to these species as well as their presence in bycatch.

155. The extremely important role played by the FAO regional projects in supporting the implementation of relevant activities was acknowledged by delegations.

156. The Commission expressed strong appreciation for the work of the chairpersons of its subsidiary bodies as well as for their numerous interventions to provide clarifications and steer discussions throughout the course of the session, notwithstanding this being the first year most had served in this role.

157. The Commission repeatedly thanked the Government of Greece for its outstanding hospitality as well as for the excellent organization of the forty-third session and the precious support provided to ensure its smooth conduct.

158. Gratitude was expressed to the GFCM Secretariat for the tireless work done in the preparation of and during the session. The excellent support of the meeting rapporteurs was acknowledged with sincere thanks.

DATE AND PLACE OF THE FORTY-FOURTH SESSION

159. The Commission took note of the kind invitation made by the delegation of Albania to host the forty-fourth session in 2020, subject to final confirmation by relevant authorities.

REVIEW AND ADOPTION OF THE REPORT

160. The report, including its appendices, was adopted on 8 November 2019.

LIST OF APPENDIXES

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2. List of participants
3. List of documents
4. Statements pronounced during the forty-third session of the Commission
5. Recommendation GFCM/43/2019/1 on a set of management measures for the use of anchored fish aggregating devices in common dolphinfish fisheries in the Mediterranean Sea
6. Recommendation GFCM/43/2019/2 on a management plan for the sustainable exploitation of blackspot seabream in the Alboran Sea (geographical subareas 1 to 3)
7. Recommendation GFCM/43/2019/3 amending Recommendation GFCM/41/2017/4 on a multiannual management plan for turbot fisheries in the Black Sea (geographical subarea 29)
8. Recommendation GFCM/43/2019/4 on a management plan for the sustainable exploitation of red coral in the Mediterranean Sea
9. Recommendation GFCM/43/2019/5 on a multiannual management plan for sustainable demersal fisheries in the Adriatic Sea (geographical subareas 17 and 18)
10. Recommendation GFCM/43/2019/6 on a multiannual management plan for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Strait of Sicily (geographical subareas 12, 13, 14, 15 and 16)
11. Recommendation GFCM/43/2019/7 on information on access agreements in the GFCM area of application
12. Recommendation GFCM/43/2019/8 amending Recommendation GFCM/33/2009/8 on the establishment of a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the GFCM area of application
13. Resolution GFCM/43/2019/1 on the mapping of measures applicable to fisheries restricted areas in the GFCM area of application
14. Resolution GFCM/43/2019/2 on enhancing the conservation of cetaceans in the GFCM area of application
15. Resolution GFCM/43/2019/3 on the implementation of a vessel monitoring system and an electronic logbook in the GFCM area of application
16. Resolution GFCM/43/2019/4 on the ban of single-use plastics in all GFCM meetings
17. Resolution GFCM/43/2019/5 on a compliance assessment scheme for the implementation of Recommendation GFCM/38/2014/2 concerning the identification of non-compliance
18. Resolution GFCM/43/2019/6 on the establishment of a set of measures to protect vulnerable marine ecosystems formed by cnidarian (coral) communities in the Mediterranean Sea
19. Resolution GFCM/43/2019/7 amending Resolution GFCM/41/2017/3 on the reactivation of the Working Group on Fishing Technology
20. Updated technical elements for the management of fisheries for blackspot seabream in the Strait of Gibraltar
21. Technical elements for the management of small-scale fisheries
22. Updated concept notes for selected research programmes
 - a. Updated concept note for a research programme on European eel: towards coordination of European eel stock management and recovery in the Mediterranean

- b. Updated concept note for a research programme on red coral
- 23. Programmes of work for selected activities
 - a. Benchmark assessments planned for Mediterranean and Black Sea priority species for 2019-2020 intersession
 - b. Programme of work for the testing of the “matrix for the characterization of fishing activities”
 - c. Concept note and programme of work for the SSF University
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- 24. Terms of reference of selected activities
 - a. Working Group on the Assessment of Alternative Management Measures (WGMSE)
 - b. Working Group on Essential Fish Habitats (EFH) and Vulnerable Marine Ecosystems (VME)
 - c. Working Group on Recreational Fisheries (WGRF)
- 25. GFCM autonomous budget for 2020
 - a. GFCM autonomous budget for 2020
 - b. Contribution of the Contracting Parties to the autonomous budget for 2020
- 26. GFCM autonomous budget for 2021
 - a. GFCM autonomous budget for 2021
 - b. Contribution of the Contracting Parties to the autonomous budget for 2021

Agenda

1. Opening and arrangements of the session
2. Progress on cooperation matters
3. Report on intersessional activities in 2018–2019
4. Meeting of the heads of delegations of contracting parties
5. Management of Mediterranean and Black Sea fisheries and aquaculture
6. Issues stemming from the Compliance Committee (CoC)
7. Outcomes of the second performance review of the GFCM
8. Programme of work for the period 2019–2021, including discussion towards the post-2020 strategy
9. Tenth session of the Committee on Administration and Finance (CAF)
10. Endorsement of the new bureau of CAQ and WGBS
11. Any other matter
12. Date and place of the forty-fourth session
13. Review and adoption of the report

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| GFCM:43/2019/Inf.8 | Report of the eleventh session of the Scientific Advisory Committee on Aquaculture (CAQ) (Spain, 10–12 September 2019) (bilingual) |
| GFCM:43/2019/Inf.9 | Report of the thirteenth session of the Compliance Committee (CoC) (Albania, 19 July 2019) (bilingual) |
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| GFCM:43/2019/Dma.1 | FAO. 2018. The State of Mediterranean and Black Sea Fisheries. General Fisheries Commission for the Mediterranean. Rome. 172 pp. (Available in English only) |
| GFCM:43/2019/Dma.2 | FAO. 2019. <i>The State of Mediterranean and Black Sea Fisheries. General Fisheries Commission for the Mediterranean – At a glance</i> . Rome. 30 pp. (available in Arabic, English, French and Spanish) |
| GFCM:43/2019/Dma.3 | FAO. 2019. <i>Monitoring discards in Mediterranean and Black Sea fisheries: methodology for data collection</i> . FAO Fisheries and Aquaculture Technical Paper No. 639. Rome, FAO. 88 pp. (Available in English only) |
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| GFCM:43/2019/Dma.7 | GFCM. 2019. <i>Toolkit on allocated zones for aquaculture. Benefits, implementation and management</i> . Rome, FAO. (available in English only) |
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Official opening statements by FAO and the hosting country
(in original language)

Fotini ARAMPATZI

Deputy Minister of Rural Development and Food

Distinguished guests,

On behalf of the Greek Government and the Ministry of Rural Development and Food, I would like to most warmly welcome all delegates to our glorious and historical city of Athens and, particularly, to the forty-third session of the Commission of the General Fisheries Commission for the Mediterranean (GFCM). Here, in the cradle of the ancient Greek civilization, our motto has always been “μέτρον ἄριστον”, which means “everything in moderation”. However, I sometimes think that it was the ancient Greeks again who first broke that rule, because they liked fish and seafood in their diet so much. Indicative of that preference was the fact that they called seabass “θεόπαις λάβραξ”, which means the “son of God”, because probably, they appreciated its ability to escape fishers.

After thousands of years, the Mediterranean and the Black Sea have the lowest percentage of sustainable fish stocks (37.8 percent), according to the 2019 Sustainable Development Goals Report. Therefore, my presence here, as Deputy Minister responsible for Fisheries, signals the importance we attribute as a country to the sound development of fisheries and aquaculture in our region and the strong political commitment of our government to their long-term environmental, economic and social sustainability. Especially, we recognized the necessity to take into account the regional specificities of small-scale fisheries, and to implement a regional plan of action that, based on the latest scientific advice on fisheries management and conservation, sets clear, realistic, and specialized common objectives and targets.

On the issue of illegal, unreported and unregulated (IUU) fishing, we wish to reaffirm our intention to combat IUU fishing in the region, through regional cooperation, and to take collective action to enhance and strengthen the overall level of marine conservation and management to ensure the sustainable use of fisheries resources. The Mediterranean is a closed sea, and it is up to GFCM members to limit IUU fishing, something relatively easy to achieve if we improve the efficiency of each one of us even further in preventing, deterring, and eliminating IUU fishing.

We must also combat the latest problems, such as climate and environmental changes, and the invasion of non-indigenous species, mainly the Lessepsian migrant species, and to take the needed precautionary measures to protect our stocks and small-scale fisheries. The role of the GFCM is highly significant, as it provides us with the suitable legal international framework to boost synergies and complementarities between regional states, especially in the direction of our common goals such as reducing overfishing and ensuring the viability of the fish stocks in the Mediterranean Sea.

Ladies and gentlemen, "doing nothing is not an option", as the outgoing European Commissioner for Environment, Maritime Affairs and Fisheries, Mr Karmenu Vella, recently declared. The time has come to take bold action and work together more efficiently to deliver a better future for the coming generations in our unique sea basin. At the end of the day, let us follow what Homer, the famous ancient Greek poet, wrote: «a sea full of fish is a key factor to “ευδαιμονία”, which means happiness and prosperity.

On behalf of the Greek Government and the Ministry of Rural Development and Food, I would like to assure you that we would exert all our efforts in order to have a positive contribution towards a successful outcome of the present meeting.

Thank you very much for your attention.

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Distinguished delegates,

Colleagues,

It is with pleasure that I welcome you, on behalf of the FAO's new Director General Mr Qu Dongyu, to this forty-third session of the General Fisheries Commission for the Mediterranean (GFCM). In particular, my special thanks go to the hosting country, Greece, for its very warm welcome in this spectacular city. In a country so full of history, culture and with such a strong link to the sea, it is impossible not to reflect on the past and how far we've come.

This year in particular marks a point of reflection, both at the FAO where our new Director General has brought fresh ideas and a new perspective, but also within the GFCM. With the far-reaching mid-term strategy for the sustainability of Mediterranean and Black Sea fisheries wrapping up in the next year, there is the need to take stock of just how much has been accomplished and to set an even more ambitious vision for the coming years. Furthermore, in responding to calls made by both the FAO Committee on Fisheries (COFI) and the UN General Assembly (UNGA), the GFCM has painstakingly carried out an independent review of its performance since 2011. I believe it is apparent to anyone who reads the report of this performance review how much progress was made by the GFCM over these years. Advancements have been striking on all fronts, including both scientific and institutional. Without intending to engage myself in the evaluation of GFCM performance, allow me though to cursorily share my views with you, having been closely following the work of the GFCM since 2011.

The year 2011 did not mark only the beginning of my tenure as FAO ADG-FI, but also the year when the first performance review of the GFCM was completed and the current Executive Secretary was appointed by the previous FAO DG. A first watershed event came about shortly thereafter, that is the move by the GFCM to its current HQ in Rome, outside of the FAO premises. This has tremendously contributed to the visibility of the Commission which, ever since, has made enormous strides in enhancing its scientific advice and moving towards sound scientific-based management. Mirroring this increase in scientific advice we have also witnessed an ever-stronger engagement in a wide array of issues linked to the sustainability of fisheries and aquaculture. This trend has been constantly reinforced through innovative initiatives launched by the GFCM Secretariat, such as the Forum on Fisheries Science in the Mediterranean and the Black Sea (Fish Forum), which was held for the first time in 2018, and which served as a best practice in strengthening the science-policy nexus, inspiring similar initiatives at the global level such as the upcoming FAO Fisheries Symposium to be held at the FAO HQ in some ten days. Today we have a more hands-on Commission which addresses the multitude of challenges facing the region through ad hoc actions in the field never implemented before, such as GFCM surveys-at-sea that were launched for the first time this year in Morocco, Tunisia, as well as a transnational survey in Turkey and Georgia carried out last year.

To reflect these advances in knowledge, the Commission is also now fitted with more sophisticated tools to support international collaboration, data reporting and discussion; the DCRF and SIPAM platforms, as well as online repositories for meeting documents have significantly improved the efficiency and transparency of the GFCM. Not to mention the critical contribution to knowledge provided by the State of Mediterranean and Black Sea Fisheries (SoMFi) publication, which is now in its second – soon to be third – edition. This document, which is a regional version of the global FAO SOFIA publication, has now come to be a crucial reference for anyone working on fisheries in the Mediterranean and Black Sea region and is yet another success story to be reported in the post 2011 GFCM timeline.

Of course, this enhanced engagement would not have been possible had it not also been coupled with and mirrored by ever-stronger support to the work of the GFCM. In this regard, as you are all aware, the GFCM succeeded in securing funds to enhance resources and participation. This was possible, initially, via the launching of the GFCM Framework Programme and, subsequently, with a reform of the GFCM budget which is now spread over a biennial period. Incidentally, the GFCM sister within the FAO, namely IOTC, is currently in the process of also moving to a biennial budget acting on the example by the GFCM. The extra-budgetary support to GFCM activities has made it possible, among others, to have five additional countries participating in the capacity of cooperating non-contracting Parties while regional and international cooperation has spectacularly intensified with the signature of 15 MoU. The shift to a subregional approach is another landmark worth mentioning since it has allowed this Commission to be more responsive to the specificities of the region and better promote an interface between science and policy. I welcome the inauguration of GFCM sub-regional units and commend the countries that stepped up to host such units.

All countries have stepped up, in more general terms, to make known their will to improve the situation of this region, adopting two germane declarations for the Mediterranean and the Black Seas – MedFish4Ever and the Sofia declarations – which set forth a common vision for these two seas. Furthermore, the GFCM has ensured that the commitments in these declarations remain at the forefront of our discussions. Thanks to conferences such as the MedFish4Ever conference held in June this year in Marrakech, the issues underlined through these declarations remain a continued point of discussion. This is, most notably, the case with the Black Sea. Back in 2011, when the Working Group on the Black Sea was established, the involvement of the GFCM in this region had to be improved. And the GFCM had a lot of catching up to do. Against all odds though, the efforts to turn the Black Sea into a key component of the work of the GFCM have proven fruitful beyond any expectations. The adoption of the Sofia declaration by a ministerial conference in Bulgaria last year followed upon the 2016 Bucharest declaration that emanated from a high-level meeting and will be soon underpinned by a new ministerial conference that will further emphasize how central the Black Sea now is in the GFCM agenda. Ultimately, there is no option other than for the riparian countries to be involved within the GFCM to address Black Sea fisheries.

In this light, I would like to also mention the Ministerial Declaration on a Regional Plan of Action on Small-Scale Fisheries. To my recollection, this is the first region in the world to sign such a declaration, putting into practice the principles of the SSF Guidelines and setting concrete priorities and actions to be implemented in a stepwise fashion over the coming decade. As we come up on the UN Decade of Ocean Science and work towards establishing the post-2020 agenda, I am heartened to know that organizations like the GFCM are well equipped to continue pushing limits.

In order for this region to be able to face the sheer number of important and pressing challenges it has to cope with, a dedicated, competent, responsive and diverse Secretariat is needed. It is not by chance that with the strengthening of the GFCM Secretariat as of 2011 we have witnessed an increase in the efficiency of the GFCM to secure a sustainable future and sustainable livelihoods for those who rely on the Mediterranean and Black seas. I would like to express my gratitude to the GFCM Secretariat for their work and for constantly promoting coordination and cooperation with the FAO Fisheries Department, including the FAO Regional Projects. A telling example of this is the concerted action initiative, which was spearheaded by the GFCM in Lebanon back in 2012 and that is currently being rekindled under the stewardship of the GFCM. We had the pleasure last month to welcome the Lebanese Minister of Agriculture, who spoke highly of this initiative, and I invite other countries to consider what

is being done with Lebanon as a reference point. While I hope you are able to reflect on the fact that enormous progress has been made, we must also not back down from maintaining the momentum that has been gained. It is in this spirit that I urge you to affront your deliberations over the course of the coming days while relying on the support of the GFCM Secretariat and, needless to say, the FAO.

Recognizing that you have much to discuss, I wish to cede the floor to allow as much time as possible for these important deliberations. I wish you much success in your work.

Roland Kristo
Chairperson, General Fisheries Commission for the Mediterranean

Deputy Minister of Rural Development and Food, Ms Fotini Arampatzi,

FAO ADG-FI, Mr Árni M. Mathiesen,

Executive Secretary of the GFCM, Mr Abdellah Srour,

Dear colleagues,

I am honored to be with you here today in Athens and would like to add my voice in welcoming all of you. As I took over the Commission presidency last year, this is the first annual session I have the pleasure to chair. Please rest assured of my full commitment to you in discharging my functions as GFCM Chairperson. At the outset, I would like to thank the hosting country, Greece, which has made enormous efforts to secure the breathtaking setting of Zappeion for the forty-third session of the Commission, including the tenth session of the CAF. Incidentally, this is also where, under the 2014 Greek Presidency of the EU Council, the GFCM held its last extraordinary session to validate the visionary amendments to our constitutive agreement. This building is already a part of the GFCM history and I surely hope that this week, it will contribute further to making GFCM history.

As it has been the case with recent GFCM annual sessions, the Commission continues to enjoy a strong support throughout the Mediterranean and the Black Sea, despite the numerous specificities marking the GFCM area of application. Yet, the success of the GFCM has been built upon its unique ability to federate efforts. Most recently, we saw what an incredible success the GFCM Forum on Fisheries Science in the Mediterranean and the Black Sea region (Fish Forum) was. Organized less than 12 months ago, this event brought together more than 450 experts encompassing the domains of oceanographic, social science, economy and technology. The Fish Forum gave a unique opportunity to scientists from our region and beyond – let's not forget that a total of 45 nationalities were represented – to share knowledge and exchange information about their research. The outcomes of this event proved that the GFCM has the expertise we need to address emerging issues such as climate change, non-indigenous species, marine plastic and other types of pollution, such as ocean noise pollution, that are turning into growing foes for our region.

Whereas the GFCM Fish Forum was a scientific-based event, the GFCM has also continued advancing the political agendas of its countries this year, against the background of the MedFish4Ever Declaration, the Sofia Declaration and the Ministerial Declaration on a Regional Plan of Action for Small-Scale Fisheries, respectively. Last June, a ministerial conference was hosted by Morocco in Marrakech with a view to evaluate progress by countries in meeting the ambitious targets in the MedFish4Ever Declaration. Participants, including the various organizations in attendance, renewed their commitments to this declaration, while placing social development and decent work – particularly for vulnerable populations such as small-scale fishers – at its very core. One of the most topical commitments remains the ongoing fight against IUU fishing that we celebrated on occasion of an award ceremony to take stock of some regional success stories from the GFCM area of application. Obviously, we still have work to do but it was important to acknowledge our achievements in Marrakech.

During this session we will take stock of the outcomes of the efforts deployed in the context of the second GFCM performance review carried out by an independent panel of experts. Their assessment of GFCM performance was complemented by the organization of three subregional rounds of consultations to collect inputs from the countries. Some of the countries, and organizations, also provided their inputs in writing while replying to a questionnaire prepared by the panel. I have read with great interest the report that was submitted by the panel to this session and I am positive that we will be able to make the most out of the recommendations stemming from such report. Modernizing the GFCM does not only hinge on the course of action that will be chosen to build upon the outcomes of the second GFCM performance review though. Since 2016, GFCM annual sessions have resulted in the adoption of a record number of new decisions. This year will likely not be an exception. As a former delegate to the GFCM, I have attended past annual sessions of the Commission where we had to consider a very limited number of new decisions. The fact that we are now ready to consider with confidence many new decisions testifies to the level of maturity that was attained by the GFCM, including in the Black Sea region. This session too should result in the adoption of new measures for the sustainable management of Black Sea fisheries, capitalizing on the scientific advice formulated by the Working Group for the Black Sea with the support of the BlackSea4Fish project based in the GFCM subregional unit for the Black Sea in Burgas. The progress by the GFCM in the Black Sea region should be underpinned by the accession of new members from this basin to the GFCM Agreement. I would like to call upon these countries to join the GFCM membership soon.

Following in the footsteps of the Black Sea region, other Mediterranean subregions have made progress to establish their technical units. This is the case, most notably, with Lebanon that I would like to congratulate for inaugurating the Beirut-based Eastern Mediterranean subregional unit last February. It's also the case of Spain as we all read the announcement by the Minister of Agriculture a few months back about hosting a GFCM subregional unit for the Western Mediterranean in Malaga. I am aware that talks are ongoing between Spain and the FAO as it is also the case with Croatia, which is very advanced in establishing a subregional unit for the Adriatic Sea in Split. Soon, we will be left only with the launching of the Central Mediterranean subregional unit in Tunis. These developments emphasize how important it is for our Commission to move to a subregional approach. It is thanks to this approach that we have been able to set in motion different velocities, prioritizing certain actions, such as subregional management plans, in those subregions where the countries are more ready to adopt more stringent management measures. The subregional approach opens up to more possibilities in that we can tailor the GFCM brand and replicate it relative to different features elsewhere. Ultimately, this is what we did for the Black Sea.

While the provision of GFCM advice has remained steady this year, with an outstanding performance in terms of stocks assessed and fisheries data submitted to the last session of the SAC, agreeing on the best scientific information remains our compass. Fisheries must be managed according to sound data and technical information that the countries have to collect and analyze together. I would be remiss without mentioning the contribution of the FAO regional projects as they too are instrumental in paving the way for GFCM scientific work. I hope that the synergies between the GFCM and the FAO regional projects will be enhanced since both aim to strengthen the role of science as a driver of efficient fisheries management. Progress was achieved even in the context of other GFCM subsidiary bodies as the CAF and the CoC met this year and adopted recommendations, conclusions and work plans giving them additional prominence. This holds particularly true for the CoC. In my home country, Albania, the committee met a few months back and sent out a very strong message. Namely that the time has come for the CoC to be more decisive in deterring and sanctioning situations of non-compliance by the countries. This will be coupled with operational activities, such as joint inspections at sea and a centralized VMS, that are intended to monitor on a daily basis our fishing vessels and prevent IUU fishing detrimental to GFCM management measures. SAC and CoC must be two sides of the same coin as one can lend support to the other and vice-versa.

Allow me, in concluding, a few words on the importance that small-scale fisheries continue to play for our region. This is corroborated by the recognition of our donors that have been supporting SSF related activities, among others. The list of donors, to which we are extremely grateful, includes the European Union, France, Italy, Monaco, Spain and the MAVA Foundation. They have reaffirmed, time and again, the importance of SSF for the GFCM. While focusing on SSF, we shift away from purely management related considerations to a more human dimension of the fisheries. It's impossible to address SSF without talking about livelihoods, social protection, traditional knowledge and diversification. And by doing so, the GFCM is getting closer to the region's stakeholders, reaching out to consumers. The GFCM has been very effective in promoting dialogue with other organizations, some of which like UNEP-MAP and WWF have proven to be excellent partners in the implementation of joint actions, so why not relying on it to promote dialogue also with the civil society at large.

Without keeping you any longer, let me wrap up by thanking you very much for your attention and wishing you all the success in your undertakings this week.

Recommendation GFCM/43/2019/1
on a set of management measures for the use of anchored fish aggregating devices in common
dolphinfish fisheries in the Mediterranean Sea

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that it is the responsibility of a regional fisheries management organization to contribute to the objectives of the United Nations General Assembly Resolutions 59/25, 61/105 and 64/72 on the protection of vulnerable marine ecosystems and to ensure management measures are established consistently with the precautionary approach;

RECALLING the mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries, in particular Target 4 “Minimize and mitigate unwanted interactions between fisheries and marine ecosystems and environment” and the development of actions related to Output 4.2 “Healthier marine ecosystems and more productive fisheries”;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration requires, in the context of establishing an ecosystem-based fisheries management framework, to ensure adequate protection of vulnerable species and sensitive habitats;

CONSIDERING the impact of the use of fish aggregating devices (FADs) on essential fish and marine habitats and vulnerable marine ecosystems, their possible interactions with other fisheries and the need to establish a minimum set of management measures, in particular for better monitoring and control;

CONSIDERING the advice expressed by the Scientific Advisory Committee on Fisheries (SAC) at its twenty-first session (Egypt, June 2019) on measures to be implemented for the management of FADs, in particular in relation to the identification of fishing gear, fishing authorizations and improved information on catch and effort for the assessment of common dolphinfish, a GFCM priority species;

ADOPTS, in conformity with Articles 5 b), 8 b), and 13 of the GFCM Agreement, the following recommendation:

PART I
General objectives, scope and definitions

General objectives

1. This recommendation complements Recommendation GFCM/30/2006/2 on the establishment of a closed season for common dolphinfish fisheries using fish aggregating devices and establishes a set of management measures for the use of anchored FADs by the fishing vessels of contracting parties and cooperating non-contracting parties (CPCs) exploiting common dolphinfish in the GFCM area of application. These management measures contain transitional measures that shall apply until the adoption of permanent measures, based on the scientific advice provided by the SAC.

2. The management measures shall be consistent with the precautionary approach to fisheries management. Permanent measures shall be established within the framework of a future management plan designed to provide high long-term yields consistent with the maximum sustainable yield (MSY), when established, and to guarantee a low risk of stock collapse while maintaining sustainable and relatively stable common dolphinfish fisheries.

3. A set of transitional management measures shall be developed in order to contribute, pending formal scientific advice by the SAC, to the sustainability of the common dolphinfish stock and fisheries.

4. CPCs whose vessels actively exploit common dolphinfish using FADs shall agree to implement such transitional management measures for the fisheries concerned, in accordance with the general and specific objectives set by this recommendation.

Scope

5. The management measures established by this recommendation shall apply to commercial fisheries targeting common dolphinfish using FADs throughout the Mediterranean Sea (geographical subareas [GSAs] 1 to 27).

Definitions

6. For the purpose of this recommendation, the following definitions shall apply:

- a) “fish aggregating device” or “FAD” means any anchored equipment floating on the sea surface with the objective of attracting fish;
- b) “common dolphinfish” means fish belonging to the species *Coryphaena hippurus*;
- c) “associated species” means secondary target species that are usually caught in fisheries targeting common dolphinfish such as greater amberjack (*Seriola dumerili*), pilotfish (*Naucrates ductor*) and grey triggerfish (*Balistes carolinensis*).

PART II Operational objectives

Management measures

7. The operational objectives of the management measures shall be to:

- a) improve knowledge on the characteristics of FADs, buoys, FAD fishing and their related impacts on common dolphinfish and on associated and non-targeted species;
- b) manage the deployment and recovery of FADs and their potential loss; and
- c) reduce and limit the impacts of FADs and FAD fishing on the ecosystem including, where appropriate, by acting on the different components of fishing mortality (e.g. by limiting the number of FADs deployed, including the number of FADs set per vessel).

Transitional management measures

8. The objective of the transitional management measures is to prepare for future management measures while reducing the risk that, in the absence of relevant scientific assessment, the biomass level of the common dolphinfish stock would drop below biologically sustainable levels, with negative consequences also on the socio-economic viability of the fisheries concerned. The transitional measures shall apply in international waters in 2020 and 2021.

9. Pending the scientific advice of the SAC and in view of a future management plan, fishing effort shall be maintained at the current level, expressed in number of vessels targeting common dolphinfish. Such measure shall be without prejudice to discussions in the context of the working group referred to under paragraph 13 of this recommendation.

10. Notwithstanding paragraph 9, CPCs considering starting to target common dolphinfish using FADs shall submit to the GFCM their national measures adopted in this respect. The SAC shall examine these measures and formulate appropriate advice should they not comply with the objectives of this recommendation.

11. Notwithstanding paragraph 9, competent national authorities may authorize scientific surveys or pilot programmes with a view to assessing new common dolphinfish fisheries using FADs. In cases where new fisheries are authorized by a CPC after scientific assessment, the number of new FADs authorized shall be limited under the national management measures adopted.

12. Each CPC shall establish a code of conduct prior to the start of the fishing season in order to ensure the implementation of the provisions of this recommendation. Where applicable, the concerned CPCs could communicate to the GFCM Secretariat the measures contained in such code of conduct. If necessary, the concerned CPCs could organize meetings with a view to ensuring proper coordination and full implementation of the provisions of this recommendation. The GFCM Secretariat shall be informed by the relevant CPCs about such initiatives.

13. A GFCM working group shall be established in 2020 in order to develop a multiannual management plan for common dolphinfish fisheries that comprises measures for the management of FADs, taking into consideration socio-economic elements as well as efforts made by CPCs in managing relevant fisheries and in applying, in some cases, stricter rules than those defined in this recommendation.

14. Within the framework of a research programme, the SAC shall, upon the availability of updated data, assess the state of common dolphinfish stock and define any other FAD fisheries management measure that would contribute to the sustainability of the common dolphinfish stock.

15. On the basis of SAC advice and research programme, the GFCM shall, at its forty-sixth session at the latest, adopt a long-term multiannual management plan to allow for the achievement of the objectives set out in paragraph 1, in complement to or in replacement of the measures referred to in this recommendation.

PART III

Scientific monitoring, adaptation and revision of management measures

16. CPCs shall ensure adequate monitoring of the biological and environmental impacts of FADs used by vessels flying their flag and exploiting common dolphinfish.

17. As from 2020, the SAC shall assess on an annual basis the impact of FADs on restoring and maintaining the common dolphinfish stock above levels that can produce MSY.

18. Based on SAC advice, the GFCM may review the content of the management measures.

19. In cases where SAC advice indicates that the general or specific objectives of the management measures have not been met, the GFCM shall decide on additional and/or alternative management measures to contribute to achieving those objectives.

20. Should the SAC, for any reason (e.g. lack of appropriate data), not be in a position to provide an accurate advice on the impact of FADs on the common dolphinfish stock and on their suitable number, the GFCM shall decide on the most appropriate management measures to ensure the sustainability of the fisheries. Such measures shall be based on SAC advice, in accordance with the precautionary approach to fisheries management, and take into consideration environmental and socio-economic elements in a way that guarantees the sustainability of the fisheries.

21. With a view to providing advice towards the revision/adaptation of the management measures, the CPCs and the SAC shall facilitate the collation of existing relevant data and the collection of additional relevant data (including research survey data) and organize workshops to this end. For this purpose, the SAC shall promote scientific cooperation and a harmonised approach amongst all CPCs.

22. The research programme on common dolphinfish shall be finalized by 2022 at the latest and include the assessment of the stock and of the fishing effort exerted by the fisheries concerned. Such programme shall also aim at developing conservation measures, including the minimum depth of deployment of FADs and their number, taking into account the characteristics of different areas.

PART IV

FAD management measures

23. Vessels of CPCs shall be allowed to use FADs for the exploitation of common dolphinfish only if they hold a valid fishing authorization issued by the competent authorities. Each CPC shall maintain a register of these authorizations and communicate the list of authorized vessels to the GFCM Secretariat each year by 31 July.

24. The GFCM Secretariat shall maintain and update the list of authorized vessels and publish it on the GFCM website in a manner that is consistent with GFCM data confidentiality policy and procedures.

FAD composition, location, maintenance and replacement

25. In cases where the surface structure of the FAD is covered with material, CPCs shall ensure that it is either not covered or covered only with material that involve minimal risk of entangling non-target species, especially vulnerable species, or affecting other vessels.

26. FAD subsurface components shall be exclusively composed of materials that do not entangle non-target species.

27. When designing FADs, biodegradable materials shall be prioritized

28. FADs shall be constructed so that they can be reliably located at their place of deployment. The design of FADs shall include an appropriate number of counterweights along the rope to ensure that the rope sinks to the sea bottom in the event that the raft section is detached and drifts away.

29. CPCs shall ensure that FADs are regularly maintained, replaced as necessary and removed when not in use. The replacement FADs shall be of the same type, design, construction, materials and identification as the FAD being replaced. Replacement anchored FADs shall be in the same position as the FADs being replaced.

30. In the event of loss or impossibility to haul in a FAD, CPCs shall ensure the recording of the last known position and its date.

31. CPCs shall adopt all necessary measures to ensure obsolete and unused FADs are retrieved.

32. It shall be prohibited for a CPC vessel to catch fish attracted by a FAD that has not been set by this CPC vessel.

FAD identification and marking

33. CPCs shall ensure that each FAD is marked in such a way that it can be readily identified.

34. Each FAD shall be marked externally with the registration number of the fishing vessel(s) using it. Such marking shall be visible without dismounting the beacon, seawater-proof and legible throughout the entire lifespan of the beacon. Visibility distance must be the shortest possible.

PART V

Recording of FAD activities

35. CPCs shall ensure that all fishing vessels flying their flag and exploiting common dolphinfish record their fishing activities with FADs.

36. In the event of FAD loss, CPCs shall ensure that the vessels flying their flag collect and report the last registered position of the lost FAD as well as the date of its last registered position, its identification number and any information allowing the identification of the FAD owner.

PART VI

National management measures

37. CPCs shall communicate to the GFCM Secretariat, not later than 1 April 2020, national management measures that are already in force in relation to the use of FADs in common dolphinfish fisheries.

38. CPCs that do not have national management measures in force shall adopt, by 30 June 2020, a set of measures containing at least the elements listed in the annex of this recommendation and communicate them to the GFCM Secretariat by 31 January 2021 at the latest.

39. CPCs may adopt voluntary measures. Such voluntary measures may take into account, *inter alia*, the conservation state of common dolphinfish and the impact of fishing activities exploiting common dolphinfish in their waters.

40. The above measures shall be communicated to the GFCM Secretariat within one month of their entry into force.

Guidelines for the elaboration of fish aggregating devices management measures

FAD management measures for CPC vessels must include the following:

- 1) description:
 - a) type of FAD/beacon/buoy;
 - b) maximum number of FADs to be deployed per vessel;
 - c) minimum distance between each FAD;
 - d) incidental catch reduction and utilisation policy;
 - e) potential interactions with other gear types;
 - f) statement or policy on FAD ownership;
- 2) institutional arrangements:
 - a) institutional responsibilities for FAD management measures;
 - b) application processes for the approval of FAD deployment;
 - c) obligations for vessel owners and masters regarding FAD deployment and use;
 - d) FAD replacement policy;
 - e) additional reporting obligations beyond this recommendation;
 - f) conflict resolution policy in respect of FADs;
 - g) details on any closed area or period (e.g. territorial waters, shipping lanes, proximity of small-scale fisheries, etc.);
- 3) FAD construction specifications and requirements:
 - a) FAD design characteristics (description);
 - b) lighting requirements;
 - c) radar reflectors;
 - d) visible distance;
 - e) FAD marking and identifier;
 - f) radio buoy marking and identifier (requirement for serial numbers);
 - g) echosounder buoy marking and identifier (requirement for serial numbers);
 - h) research undertaken on biodegradable FADs;
 - i) prevention of loss or abandonment of FADs;
 - j) management of FAD recovery;
- 4) applicable period for the FAD management measures; and
- 5) means for monitoring and reviewing the implementation of FAD management measures.

Recommendation GFCM/43/2019/2
on a management plan for the sustainable exploitation of blackspot seabream in the Alboran
Sea (geographical subareas 1 to 3)

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that, in giving effect to the objective of the GFCM Agreement, the GFCM shall adopt recommendations on conservation and management measures aimed at ensuring the long-term sustainability of fishing activities, in order to preserve marine living resources and the economic and social viability of fisheries and that, in adopting such recommendations, the GFCM shall give particular attention to measures to prevent overfishing and minimize discards as well as to the potential impacts on small-scale fisheries and local communities;

CONSIDERING that the GFCM shall adopt management measures based on an ecosystem approach to fisheries to guarantee the maintenance of stocks above levels which can produce maximum sustainable yield (MSY);

RECALLING that the 2017 Malta MedFish4Ever Ministerial declaration requires that, in the context of establishing an ecosystem-based fisheries management framework, all key fisheries should be managed with management plans;

NOTING the inclusion of blackspot seabream in the list of priority species for the western Mediterranean under the mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries ;

CONSIDERING that the GFCM shall apply the precautionary approach in accordance with the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 and the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO);

CONSIDERING that all measures formulated by the Commission shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

RECALLING the results of the latest assessment carried out at the twenty-first session of the Scientific Advisory Committee on Fisheries (SAC) (Egypt, June 2019), indicating that blackspot seabream is in overfishing and overexploited in the waters covered by this recommendation;

NOTING that, during its twenty-first session, the SAC endorsed a proposed common minimum conservation reference size of 33 cm, measured as the total length of the fish;

FURTHER NOTING that, at its twenty-first session, the SAC advised that a management plan be adopted and implemented on a progressive basis, taking into account the management measures included in Annex 6/B of the report of the twenty-first session of the SAC, namely the elements adopted by the SAC in 2018 and the update provided in 2019 by the Subregional Committee for the Western Mediterranean;

FURTHER NOTING that, at its twenty-first session, the SAC advised that the socio-economic impacts of the measures adopted should be assessed;

CONSIDERING the high socio-economic importance of fisheries, especially local fisheries, exploiting blackspot seabream and the need to ensure their sustainability;

CONSIDERING that important fisheries targeting blackspot seabream with longlines and handlines exploit in particular a stock distributed across the Strait of Gibraltar, including the Alboran Sea;

NOTING that there is a high level of illegal, unreported and unregulated (IUU) catches all over the Mediterranean, including blackspot seabream, and that a more adequate monitoring of involved fishing fleets, including recreational fisheries, is needed;

TAKING INTO ACCOUNT Recommendation GFCM/41/2017/2 on the management of blackspot seabream fisheries in the Alboran Sea (geographical subareas 1 to 3) for a two-year transition period, and in particular its paragraph 20;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following recommendation:

PART I

General objective, scope and definitions

General objective

1. This recommendation establishes an adaptive multiannual management plan for the sustainable exploitation of blackspot seabream in the Alboran Sea.

Scope

2. This recommendation applies to all commercial fishing activities with longlines and handlines catching blackspot seabream in the Alboran Sea (geographical subareas [GSAs] 1 to 3).

3. Where SAC advice indicates, on the basis of the results of its scientific studies, that other fishing gear or recreational fishing have a significant impact on the fishing mortality of the stock, additional measures could be proposed.

4. Taking into account the distribution of the stock and the specific targeted fishery in the area of the Strait of Gibraltar as well as the importance to apply the same management measures in the area where the stock has been jointly assessed, the contracting parties and cooperating non-contracting parties (CPCs) concerned agree to implement the measures foreseen in this recommendation within the area of distribution of blackspot seabream in the Strait of Gibraltar.

Definitions

5. For the purpose of this recommendation, the following definitions shall apply:
- a) “blackspot seabream” means fish pertaining to the species *Pagellus bogaraveo*;
 - b) “recreational fishing” means a non-commercial fishing activity exploiting marine living resources for recreation, tourism or sport;
 - c) “authorized vessel” means a fishing vessel with a fishing authorization entitling it to carry out specific fishing activities during a specific period, in a given area or for a given fishery under specific conditions;
 - d) “fishing effort of longlines and handlines” means the number of days at sea, including those days where blackspot seabream is targeted but no catch is made, multiplied by the number of hooks on the longline or handline.

PART II Specific objectives

6. The operational objective of this recommendation shall be to maintain fishing mortality for blackspot seabream within agreed precautionary reference points in order to reach and maintain as soon as possible a fishing mortality level consistent with the MSY.
7. The plan shall contribute to improving scientific, technical and socio-economic knowledge of the fisheries exploiting blackspot seabream.
8. In particular, the plan shall aim to:
- a) apply the precautionary approach to fisheries management;
 - b) counteract or prevent overfishing with a view to ensuring long-term yields while maintaining the size of the stock within biologically sustainable levels; and
 - c) establish measures to adjust exploitation rates and fishing capacity to sustainable levels.

PART III Transitional precautionary management measures

9. In 2020 and 2021, pending updated scientific advice and following the precautionary approach to fisheries management, CPCs shall:
- a) maintain their catches at the average level authorized and exerted over the period 2010–2015 for the exploitation of blackspot seabream in the waters subject to this recommendation; and
 - b) decrease by 20 percent the fishing effort exerted on blackspot seabream as compared to the average level authorized and exerted over the period 2010–2015 for the exploitation of blackspot seabream in the waters subject to this recommendation. This reduction shall not apply when CPCs have already reduced their fishing effort by more than 20 percent during the period referred to above.
10. These transitional management measures shall not prejudice decisions on a possible permanent allocation of catches.

PART IV

Technical and conservation measures

Technical measures

11. CPCs involved in this fishery are encouraged to actively trial and adopt alternative gear or mitigation measures for gear or materials having a negative impact on the seabed.
12. Without prejudice to the flexibility established under paragraph 13 regarding the minimum conservation reference size, CPCs involved in this fishery shall encourage their fishers to release into the sea unharmed and immediately upon catch specimen that are smaller than this size.

Minimum conservation reference size

13. Until 2021 included, it shall be prohibited to land specimen of blackspot seabream where the total length of the fish is smaller than 30 cm. During the period where transitional precautionary management measures shall apply, CPCs may apply flexibility, as long as such specimens represent less than 10 percent of the landings, expressed in volume or numbers.

PART V

Fleet management measures

Register of authorized vessels

14. CPCs shall establish a register of the fishing vessels authorized to catch blackspot seabream with longlines and handlines. They shall be allowed to catch or retain on board blackspot seabream only if they hold a valid fishing authorization issued by the competent authorities.
15. The fishing authorization shall include at least the elements listed in the annex of this recommendation.

Register of fishing authorizations

16. CPCs shall maintain an updated the register of the fishing authorizations referred to in paragraphs 14 and 15. Unless already provided for within the GFCM data collection programme, CPCs shall communicate annually to the GFCM Secretariat:
 - a) the list of operating vessels for which such authorization has been delivered for the current or the following year(s), not later than 28/29 February; and
 - b) a report on the fishing activities carried out by authorized vessels, in an aggregated format, including the following minimum information: number of exploitation days, exploitation area and catches of blackspot seabream per gear. Such report shall be sent to the GFCM Secretariat not later than 30 November.
17. In order to facilitate the exchange of information regarding possible inspections, the list of vessels authorized to fish blackspot seabream in the waters subject to this Recommendation shall be published in the purpose-made registers on the GFCM website.

Vessel monitoring system

18. All vessels above 12 metres length overall (LOA) authorized to catch blackspot seabream under the scope of this recommendation shall be equipped with a vessel monitoring system (VMS) or any other geolocation system allowing control authorities to track their activity at all times during the fishing trips.

PART VI Control and enforcement

Designated ports

19. Each CPC shall designate ports in which landing blackspot seabream under the scope of this recommendation is authorized and immediately communicate any update of this list to the GFCM Secretariat.

20. Landings of blackspot seabream shall only take place in designated ports.

21. Prior to entry into any port, except for small-scale vessels, and at least four hours before the estimated time of arrival or at least one hour if the fishing grounds are less than four hours from the port of arrival, the fishers or their representative shall notify the relevant authorities of the following information:

- a) estimated time of arrival;
- b) external identification number and name of the fishing vessel; and
- c) estimated live weight retained on board.

Catch recording

22. The CPCs whose fleets are authorized to catch blackspot seabream under the scope of this recommendation shall set up a mechanism for monitoring the fisheries and the catches.

23. By way of derogation from paragraph 1 of Recommendation GFCM/35/2011/1 concerning the establishment of a GFCM logbook, amending Recommendation GFCM/34/2010/1, CPCs shall set up a mechanism to ensure that all commercial blackspot seabream daily catches and bycatch, irrespective of the live weight of the catch, are recorded. CPCs shall also endeavour to record or estimate recreational catch.

Control of landings

24. Each CPC shall establish a programme based on risk analysis, in particular to verify the landings and validate the logbooks.

Transshipment

25. It shall be prohibited to transship blackspot seabream at sea.

PART VII
Scientific monitoring

26. Based on the information transmitted by CPCs to the GFCM Secretariat, the SAC shall provide, in 2021, updated information and advice on at least the following items:

- a) characteristics of the fishing gear, *inter alia*, the characteristics of the fixed nets and the number, type and size of the hooks used in handlines and longlines;
- b) deployed fishing effort and catch of commercial fishing fleets as well as an estimate of recreational fisheries catch;
- c) conservation and management reference points with a view to ensuring a low risk of stock collapse as well as the sustainability of fisheries, in line with the MSY objective;
- d) socio-economic effects of alternative management scenarios, including input/output and/or technical measures;
- e) possible spatio-temporal closures aimed at ensuring the sustainability of the stock and of the fisheries exploiting it; and
- f) potential impacts of recreational fisheries on the conservation status of blackspot seabream.

PART VIII
Long-term management measures

27. In 2021, at its twenty-third session, the SAC shall advise on the effectiveness of the measures contained in this recommendation with respect to the specific objectives listed in paragraphs 6 to 8, notably as concerns the minimum size. In particular, the SAC shall provide consolidated advice on management measures for the sustainable exploitation of blackspot seabream in the waters subject to this recommendation, including on fishing effort limits, catch limits and possible seasonal closures to protect spawners and/or juveniles.

28. In 2021, at its forty-fifth session and based on SAC advice, the GFCM shall adopt long-term management measures. Such measures shall be implemented as of the entry into force of GFCM measures for the sustainable exploitation of blackspot seabream in the waters subject to this recommendation, including on fishing effort limits, catch limits and, if appropriate, on seasonal closures to protect spawners and/or juveniles.

29. The provisions contained in this recommendation shall be applied without prejudice to stricter rules enforced in CPCs.

Minimum information to be included in fishing authorizations

Subject to more detailed provisions under the GFCM data collection programme, the list referred to in paragraph 15 shall contain, for each fishing vessel, the following information:

- Vessel name
- Vessel register number (code assigned by CPCs)
- GFCM registration number (country ISO 3-alpha code + 9 digits, e.g. xxx000000001)
- Port of registration (full name of the port)
- Previous name (if any)
- Previous flag (if any)
- Previous details of deletion from other registers (if any)
- International radio call sign (if any)
- VMS / other geolocation system (indicate Y/N)
- Type of vessel, length overall (LOA) and gross tonnage (GT) and engine power expressed in kW
- Name and address of owner(s) and operator(s)
- Main gear used to fish for blackspot seabream, fleet segment and operational unit allocation in the Data Collection Reference Framework (DCRF)
- Seasonal period authorized for fishing blackspot seabream

Recommendation GFCM/43/2019/3
amending Recommendation GFCM/41/2017/4 on a multiannual management plan for turbot
fisheries in the Black Sea (geographical subarea 29)

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that, in giving effect to the objective of the GFCM Agreement, the GFCM shall adopt recommendations on conservation and management measures aimed at ensuring the long-term sustainability of fishing activities, in order to preserve marine living resources and the economic and social viability of fisheries and that, in adopting such recommendations, the GFCM shall give particular attention to measures to prevent overfishing and minimize discards as well as to the potential impacts on small-scale fisheries and local communities;

RECALLING that in giving effect to the objective of the GFCM Agreement, the GFCM shall foster, as appropriate, a subregional approach to fisheries management and aquaculture development in order to better address the specificities of the Mediterranean and the Black Sea;

CONSIDERING that the GFCM shall adopt management measures based on an ecosystem approach to fisheries to guarantee the maintenance of stocks above levels which can produce maximum sustainable yield (MSY);

CONSIDERING that all measures formulated by the GFCM shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

CONSIDERING that the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO) provides that states “should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures”;

RECALLING that the 2016 Bucharest Declaration towards enhanced cooperation on Black Sea fisheries and aquaculture and the 2018 Sofia Ministerial Declaration on Black Sea fisheries and aquaculture provide a concrete set of actions for the riparian countries to implement, particularly with regard to existing management measures that will be complemented and expanded to progressively achieve exploitation at MSY;

RECALLING Recommendation GFCM/41/2017/4 on a multiannual management plan for turbot fisheries in the Black Sea (geographical subarea 29);

NOTING that for turbot in geographical subarea (GSA) 29, the Working Group on the Black Sea (WGBS) concluded, at its seventh session (Bulgaria, July 2018), that the stock is overexploited and in overexploitation. The WGBS noted first signs of reversal in the trend of the overexploitation rate and positive trends in spawning stock biomass, concluding that the constructive evolution of fishing mortality seemed confirmed due to the gradual application of management measures, and that the stock was in line with the provisions of Recommendation GFCM41/2017/4. The WGBS further advised for a benchmark assessment in 2019 and the implementation of a management plan;

NOTING that for turbot in GSA 29, the WGBS at its eight session (Turkey, September 2019), based on the conclusions of the turbot benchmark sessions of the Subregional Group on Stock Assessment for the Black Sea (SGSABS) (Bulgaria, July 2019 and Turkey, September 2019), recommended implementing a precautionary approach by establishing a precautionary total allowable catch (TAC) and confirmed that the perception of the stock continued to show a positive trend;

CONSIDERING that the Working Group on the allocation of the total allowable catch for turbot in GSA 29 (Turkey, September 2019) concluded on the allocation scheme provided for by Recommendation GFCM/41/2017/4;

CONSIDERING the socio-economic importance of fisheries exploiting turbot and the need to ensure their sustainability;

CONSIDERING that certain fisheries management measures need to be revised and adapted to the evolution of both the status of turbot stock and scientific knowledge, and that an appropriate method to this end shall be established;

ADOPTS, in conformity with Articles 5 b), 8 b), and 13 of the GFCM Agreement, the following recommendation:

Amendment of Recommendation GFCM/41/2017/4

1. Part II, paragraph 12, shall be amended as follows:

a) For the years 2020–2022, an annual TAC shall be set to 857 tonnes for CPCs with the following allocation:

| CPCs | Annual quotas 2020–2022 (in tonnes) | Percentage |
|----------------|-------------------------------------|------------|
| European Union | 150 | 17.5 |
| Turkey | 497 | 58.0 |
| Ukraine | 160 | 18.7 |
| Georgia | 20 | 2.3 |
| Others | 30 | 3.5 |
| Total | 857 | 100 |

b) The quota under “others” is reserved for parties that are not qualified as GFCM CPCs.

- c) When 90 percent of the quota of a CPC is exceeded, the concerned CPC shall inform the GFCM Secretariat, which shall notify all CPCs. When a CPC exhausts its quota, it should immediately close the fishery and inform the GFCM Secretariat accordingly, which shall notify all CPCs.
 - d) If the total catch exceeds the TAC in a given year, the excess amount shall be paid back by CPCs. The excess quantities shall be deducted the following year from the adjusted quota(s) of the concerned CPC(s). If any CPC exceeds its catch limit during any two consecutive years, the GFCM shall recommend appropriate measures, which may include, but are not limited to, a reduction in the quota corresponding to a minimum of 125 percent of the excess harvest.
 - e) The maximum underage that a CPC may carry over in any given year shall not exceed 15 percent of its initial annual quota. If the stock is in a dire state and scientific advice of the WGBS recommends a reduction in fishing mortality, then carrying-over of any unused quota may be prohibited.
2. Part II, paragraph 14, shall be amended as follows:
- a) The level of the TAC referred to in paragraph 12, as amended, may be reviewed by the GFCM in line with the recommendations and assessments of the WGBS, should the continuation of the constructive evolution of the stock recovery not be confirmed;
 - b) The level of the TAC and the allocation key, referred to in paragraph 12, as amended, may be reviewed by the GFCM in case of new parties becoming CPCs to the GFCM Agreement.

3. Part VII, paragraph 54, shall be amended as follows:

In order to support the implementation of the conservation and management measures of the multiannual management plan and to ensure the traceability of turbot catches, a working group shall be established in the context of the Compliance Committee (CoC) with a view to developing integrated MCS measures, in accordance with this recommendation. Such working group shall assess the following and report to the CoC and the GFCM at its forty-fourth annual session:

- a) the results of the voluntary observation and inspection pilot project;
- b) the development of a catch certificate pilot scheme for turbot. For the purpose of identifying the origin of turbot catch in the GFCM area of application, CPCs shall issue a valid catch documentation scheme certificate. Such certificate, issued by the competent authorities of the flag CPC, shall accompany all landings, imports, exports and re-exports of caught turbot.

The tasks of this working group are defined in the annex 2 of this recommendation.

4. Part VIII, paragraph 56, shall be inserted as follows:

In the context of the multiannual management plan for turbot fisheries, the WGBS shall provide scientific advice, including the necessary elements for setting biological reference points and for the revision of TAC and quotas, at its eleventh annual meeting (2022), to be adopted by the GFCM Commission in 2022 at its forty-sixth annual session.

5. The Annex, shall be replaced as follows:

Annex

Terms of reference for the Working Group on integrated MCS measures and catch documentation scheme for turbot fisheries in the Black Sea (GSA 29)

The mandate of the working group covers the elements described in Part VII of this recommendation. The working group referred to in paragraph 54, shall:

- 1) be supported by the GFCM and the CoC;
- 2) establish a calendar for the development of its work and hold at least one meeting during the intersession period and before the | sessions of the CoC and of the Commission;
- 3) invite observers attending GFCM meetings, the FAO, and other regional fisheries management organizations to participate in its meetings, if appropriate;
- 4) report its conclusions and opinions to the CoC; and
- 6) develop an effective and cost-efficient permanent catch documentation scheme, taking into account possible national best practices, the state of the stock, the specificities of turbot fisheries in the Black Sea, the results of the inspection pilot project, information on IUU fishing activities, the schemes in place in various RFMOs, as well as the FAO Voluntary Guidelines for Catch Documentation Schemes.

Recommendation GFCM/43/2019/4
on a management plan for the sustainable exploitation of red coral in the Mediterranean Sea

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

CONSIDERING that all measures formulated by the GFCM shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

CONSIDERING that the GFCM shall apply the precautionary approach in accordance with the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 (Fish Stocks Agreement) and the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO);

CONSIDERING the international nature of red coral trade, the high socio-economic importance of local fisheries exploiting red coral and the need to ensure their sustainability;

CONSIDERING that the GFCM shall adopt management measures based on an ecosystem approach to fisheries to guarantee the maintenance of stocks above levels which can produce maximum sustainable yield (MSY);

RECALLING that red coral is listed in the Annex III of the Protocol concerning the Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), which implies that its exploitation needs to be properly regulated at the national and international level;

RECALLING that red coral is listed as “endangered” under the Red List of the International Union for Conservation of Nature (IUCN);

RECALLING that, at its twenty-first session (Egypt, June 2019), the Scientific Advisory Committee on Fisheries (SAC) endorsed the work of the Workshop on red coral (WKREDCORAL) pointing to a possible overexploitation with signs of deterioration of red coral populations;

NOTING that, at its twenty-first session, the SAC acknowledged the urgent need to implement management measures for red coral, in particular by not increasing catches;

FURTHER NOTING that, at its twenty-first session, the SAC acknowledged the urgent need to implement a traceability scheme for red coral in order to curb the likely high level of illegal, unreported and unregulated (IUU) catches and to ensure a sustainable exploitation of this species;

FURTHER NOTING that, at its twenty-first session, the SAC endorsed, in Annex 9 to its report, an updated research programme on red coral to be launched in 2020;

CONSIDERING that cooperation between research teams and professional operators could promote and facilitate stakeholder involvement in the decision-making process with a view to enhancing compliance with the rules regulating the management and exploitation of red coral;

CONSIDERING the measures already established for the management of red coral at GFCM level in Recommendations GFCM/35/2011/2 on the exploitation of red coral in the GFCM area of application, GFCM/36/2012/1 on further measures for the exploitation of red coral in the GFCM area of application, GFCM/40/2016/7 concerning the authorization of the use of remotely operated vehicles within the framework of national scientific research programmes on red coral and GFCM/41/2017/5 on the establishment of a regional adaptive management plan for the exploitation of red coral in the Mediterranean Sea;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following recommendation:

PART I

General objective, scope and definitions

General objective

1. This recommendation establishes an adaptive multiannual management plan for the sustainable exploitation of red coral populations in the Mediterranean Sea.

Scope

2. This recommendation applies to all commercial fishing activities exploiting red coral in the geographical subareas (GSAs) 1 to 27 included.

Definitions

3. For the purpose of this recommendation, the following definitions shall apply:

- a) “red coral” means colonies pertaining to the species *Corallium rubrum*;
- b) “red coral colony” or “colony” means a genetic unit formed by hundreds/thousands of red coral polyps. A colony can have a tree-like shape with several branches. The red coral colony is the biological unit exploited in red coral fisheries;
- c) “red coral bank” (“bank”) or “red coral zone” (“zone”) means an area of variable size identified by contracting parties and cooperating non-contracting parties (CPCs) where red coral colonies are relatively abundant;
- d) “fishing authorization” means a specific entitlement other than a fishing licence issued by a CPC and allowing a fisher to engage in specific fishing activities with a given fishing gear, during a given period and in a given area, or for a given fishery under specific conditions listed in the fishing authorization. In the case of red coral, the fishing authorization specifically allows fishers, fishing vessels, concessionaries or legal persons/entities to harvest red coral;
- e) “authorized fisher” means a fisher (diver), fishing vessel, concessionary or legal person/entity in possession of a specific fishing authorization allowing the harvest and landing of red coral;
- f) “harvest” means the red coral catch proceeding from harvesting operations targeting red coral;
- g) “live weight” means the weight of freshly caught colonies weighed immediately after the end of the fishing operations or, at the latest and in case of daily fishing trips only, before their landing at the designated port. The weight refers, where possible, to clean colonies without epibionts or rocks attached;
- h) “authorized port” means a port designated by the concerned CPC where the landing of red coral catches is authorized;
- i) “illegal, unreported and unregulated fishing” or “IUU fishing” means the activities mentioned in paragraph 3 of the 2001 FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU).

PART II

Specific objectives

4. The multiannual management plan shall contribute to the objectives mentioned in Article 2 and the principles listed in Article 5 of the GFCM Agreement.
5. The multiannual management plan shall also contribute to improve the scientific, technical and socio-economic knowledge of fisheries exploiting red coral.
6. In particular, the multiannual management plan shall aim to:
 - d) apply the precautionary approach to red coral fisheries management;
 - e) counteract or prevent overfishing with a view to ensuring long-term yields while maintaining the red coral populations within biologically sustainable levels;
 - f) establish measures to adjust exploitation rates and fishing effort to sustainable levels; and
 - g) deter IUU fishing activities.
7. Pending the results of the research programme on red coral to be launched by the GFCM Secretariat in 2020 and the consolidated SAC advice on sustainable exploitation levels for red coral in the Mediterranean, transitional measures shall apply.

PART III

National management plans

8. Where no national management plan for red coral is in place, CPCs shall adopt one no later than 30 June 2020. Depending on available scientific information, management shall take place at red coral bank, GFCM statistical rectangle or CPC level. Any national management plan shall comprise at least the elements listed in Part IV (Conservation measures), Part V (Fleet management measures) and Part VI (Control and enforcement) of this recommendation. CPCs shall submit their national management plan for red coral to the GFCM Secretariat at the latest within 15 days after their adoption. CPCs shall immediately resubmit any updated national management plan for red coral, in particular when new closures or new openings of red coral banks are decided.

PART IV

Conservation measures

Harvest method

9. The only gear authorized for harvesting red coral colonies shall be a hammer used by an authorized fisher or fishing vessel using scuba diving equipment. During the harvest, the authorized fisher shall ensure that the base of the coral colony is not detached from the substrate.

Minimum harvest depth

10. It shall be prohibited to harvest red coral colonies in waters less than 50 metres deep.
11. By way of derogation from paragraph 10, CPCs may adopt derogations from the minimum harvest depth provided that:
 - a) such derogations have been continuously implemented by means of management rules during at least the five years preceding the entry into force of this recommendation; or
 - b) SAC assessment demonstrates that requests for new derogations are in line with the general and specific objectives of this recommendation.

Minimum conservation reference size

12. It shall be prohibited to harvest red coral colonies whose diameter is less than 7 millimetres, measured within one centimetre from the base of the colony.

13. If a national management plan is in force, the concerned CPC may apply a maximum tolerance of 10 percent in live weight of colonies below the minimum conservation reference size (MCRS).

Transitional precautionary harvest and effort limits for 2020–2023

14. During the transitional period (2020–2023), CPCs that harvest red coral shall:

- a) maintain their harvest of red coral at the average level authorized and exerted over the period 2015–2017 or over another period of three consecutive years after 2000, as chosen by the CPCs; and
- b) maintain the number of fishing authorizations delivered for the exploitation of red coral at the level exerted in 2019 or over another period of three consecutive year after 2000, as chosen by the CPCs, without prejudice to paragraph 29.

This shall be without prejudice to the discussions to take place in the context of paragraph 18.

15. CPCs shall inform the GFCM Secretariat, no later than 1 March 2020, about the reference period chosen, the harvest limits and the effort limits to be observed by their authorized fishers or fishing vessels during the transitional period. Where CPCs have not harvested red coral in recent years, they may use a reference period based on the last years where their authorized fishers harvested red coral. Such transitional harvest and effort limits do not prejudice future decisions or the right of CPCs to reopen their red coral fishery.

16. By way of derogation from Recommendation GFCM/40/2016/2 on the progressive implementation of data submission in line with the GFCM Data Collection Reference Framework, CPCs shall communicate to the GFCM Secretariat once a year, at the latest on 30 June of each year, their exerted harvest and effort over the preceding year.

17. CPCs may set individual daily/annual harvest and/or effort limits for their authorized fishers and fishing vessels. Such limits shall be consistent with the number of fishing authorizations granted as well as with the annual harvest limits and effort limits set for the concerned CPC.

Long-term harvest and effort limits

18. Upon SAC advice and based on the results of the research programme, and, if applicable, of the pilot phase of the Catch Documentation Scheme (CDS) referred to in paragraph 47, the GFCM, at its forty-seventh session, shall adopt harvest and effort limits for CPCs interested in having red coral fisheries in the Mediterranean Sea. Such limits shall apply as of 1 January 2024, taking due account of the state of red coral populations in each CPC.

19. For CPCs that have no historical red coral harvest data owing to long-standing prohibition, harvest and effort limits shall be determined based on the red coral national management plan provided by those CPCs.

20. The GFCM may revise harvest limits upon scientific advice validated by the SAC.

Harvest control rules and precautionary closure

21. The harvest control rules set out in Annex 1 shall apply. They shall trigger specific management actions according to the percentage of red coral colonies below the MCRS in the annual harvest of a given CPC.

22. When the proportion of the red coral colonies below the MCRS exceeds 25 percent (trigger) of the total annual harvest from a given red coral bank, relevant CPCs shall close the concerned area to any red coral fishery on precautionary grounds and immediately inform the GFCM Secretariat. Where red coral banks have not yet been properly identified, the trigger and precautionary closures foreseen in paragraph 21 shall apply at the scale of the relevant GFCM statistical rectangle.

23. CPCs shall take the necessary measures to implement precautionary closures. The decision establishing precautionary closures shall clearly define the geographical area of the affected harvest ground, its duration and the conditions governing red coral fisheries in that area during the precautionary closure as well as the conditions for reopening the fishery. Such decision shall be immediately transmitted to the GFCM Secretariat.

Spatio-temporal closures

24. In addition to closures already established at the national level, CPCs actively harvesting red coral may introduce, not later than 1 January 2020, additional spatio-temporal closures for the protection of red coral and immediately inform the GFCM Secretariat.

25. By way of derogation from paragraph 24, CPCs that adopted spatio-temporal closures for a duration of at least ten years for all or part of their waters at the date of entry into force of this recommendation may choose not to introduce additional such closures.

Move-on rule

26. CPCs may implement a move-on rule to avoid reaching the trigger defined in paragraph 22 and ensure an optimal exploitation and recovery of the colonies. When CPCs implement move-on rules, they shall immediately notify the GFCM Secretariat. Such mechanism shall be consistent, *inter alia*, with the objectives of the multiannual management plan, the fishing pressure exerted on red coral (mortality) and the growth parameters of red coral colonies in the banks concerned.

Crop rotation

27. CPCs may implement a crop rotation system between their red coral banks to ensure an optimal exploitation and recovery of the colonies. When CPCs implement a crop rotation mechanism, they shall immediately notify the GFCM Secretariat. The closure period shall be consistent, *inter alia*, with the objectives of the multiannual management plan, the harvest pressure and the growth parameters of red coral colonies in the banks concerned.

PART V

Fleet management measures

Fishing authorizations

28. Fishers shall be authorized to harvest red coral in the Mediterranean Sea only if they hold a valid fishing authorization issued by the flag CPC authorities where the fishing activity takes place (fishers) or by the flag CPC authority (vessel). Such authorization shall specify the technical conditions governing the fishery. In the absence of such authorization, fishers shall not harvest, retain on board, transship, land, store or sell red coral. A fishing authorization may only be granted to a fisher (diver) who complies with national standards for professional diving.

29. CPCs shall maintain an updated register of the fishing authorizations they issue. Every year and no later than 30 June, CPCs shall communicate to the GFCM Secretariat the list of fishers and/or vessels authorized to harvest red coral. Such list shall include, for each vessel, at least the information referred to in Annex 2 of this recommendation.

30. CPCs shall not increase the number of fishing authorizations they issue until scientific advice validated by the SAC indicates that red coral populations have rebuilt to sustainable levels allowing them to sustain increased exploitation.

31. CPCs shall take the necessary measures to prohibit the catch and retention on board, transshipment or landing of red coral for recreational fisheries.

Development plans

32. By way of derogation from paragraph 14, CPCs intending to start targeting red coral shall submit a management plan for red coral as referred to in paragraph 8 and a development plan during the period between the entry into force of this recommendation and the adoption of permanent management measures by the GFCM. The SAC shall review the development plan and formulate appropriate advice if it is not in line with the general and specific objectives set out in this recommendation. Pending possible amendments in line with SAC advice, the GFCM shall take a decision on the adoption of such development plan.

PART VI

Control and enforcement

Authorized ports

33. Each CPC shall designate ports in which the landing and transshipment of red coral harvest is authorized and communicate such list to the GFCM Secretariat not later than the date set out in paragraph 29. CPCs shall immediately communicate any update in this respect to the GFCM Secretariat. It is only permitted to land and transship red coral in authorized ports.

34. Prior to entry into any port, and at least four hours before the estimated time of arrival, or at least one hour if the fishing grounds are less than four hours from the port of arrival, the authorized fishers or their representative shall notify the relevant authorities of the following information:

- a) estimated time of arrival to the port;
- b) external identification number and name of the authorized vessel or vessel used for harvesting;
- c) estimated live weight and number of red coral colonies retained on board; and
- d) harvesting area, preferably with geographical coordinates.

Harvest recording

35. CPCs shall ensure that the authorized fishers or the masters of the vessels authorized to harvest red coral have the obligation to record their harvest daily after each harvest operation, in line with the provisions of Recommendation GFCM/40/2016/2.

36. By way of derogation from paragraph 2 of Recommendation GFCM/35/2011/1 concerning the establishment of a GFCM logbook, amending Recommendation GFCM/34/2010/1, each CPC shall set a mechanism to record all red coral daily harvests in the logbook, irrespective of the live weight of the harvest.

Vessel tracking

37. Without prejudice to Recommendation GFCM/33/2009/7 concerning minimum standards for the establishment of a vessel monitoring system in the GFCM area of application, CPCs may, on a voluntary basis, implement pilot projects to ensure that all fishers and/or vessels authorized to harvest red coral use a vessel monitoring system (VMS) or any other geolocation system allowing control authorities to track their activity at all times during the fishing trips.

Control of landings

38. Each CPC shall establish a risk-based control programme, in particular to check the landing and logbook information.

Transshipment

39. It shall be prohibited to transship red coral at sea.

Inspection plan

40. All such control and enforcement measures shall be contained in an inspection plan that each CPC shall establish taking into account, as guidelines, the elements listed in Annex 5. Such inspection plans shall be communicated to the GFCM secretariat by 31 January of each year.

PART VII

Traceability of red coral products

Principles

41. Each CPC shall take the necessary steps to implement a CDS for the purpose of identifying the origin of red coral harvested in the GFCM area of application and in order to support the implementation of relevant GFCM conservation and management measures.

42. Such measure shall not prejudice other traceability systems in force ensuring the same level of control over the traceability of red coral products by CPCs.

43. A validated CDS certificate as referred to in Annex 3 to this recommendation (for the pilot phase) and issued by the competent authorities of the flag CPC shall accompany all landings, imports, exports and re-exports of red coral harvested from the entry into force of this recommendation.

44. Each CDS form shall have a unique document identification number. Such number shall be specific to the flag CPC and be assigned to each fisher or harvesting vessel. Such forms shall not be transferable to another fisher or harvesting vessel.

45. CPCs shall validate the CDS harvest certificates for red coral only when all the information contained in the CDS has been established to be accurate as a result of the verification of the supporting documents and corresponding consignment.

46. Not later than 1 January 2021, CPCs shall ensure that they have put in place a system (e.g. a specific customs code for red coral) allowing for the collection of statistical data and the monitoring of their red coral imports, exports and re-exports.

Pilot phase

47. For a transitional period of three years (2020–2022), CPCs may participate in the pilot phase of the CDS, where all the above traceability measures shall be fully implemented.

48. In parallel to the pilot phase, the GFCM shall set up, in 2020, a Compliance Committee (CoC) working group tasked with developing a permanent GFCM CDS, according to the terms for reference provided in Annex 4 of this recommendation.

49. CPCs shall report on the implementation of the pilot phase to the CoC working group referred to in paragraph 48 in preparing a permanent GFCM CDS for red coral.

50. Upon the advice of the CoC, the GFCM shall adopt the permanent GFCM CDS for red coral at its forty-sixth session and CPCs shall start implementing it on 1 January 2023.

PART VIII

Scientific information

51. In addition to the provisions related to red coral contained in Recommendation GFCM/40/2016/2, CPCs shall report the data listed below at the bank, GFCM statistical grid and national level, when available:

- a) number of red coral fishing authorizations granted for fishers and for authorized vessels;
- b) number of dives per authorized fisher and fishing trip;
- c) number of authorized fishers on board for each fishing trip; and
- d) diameter of each colony harvested, if possible.

Such data shall be reported first in a single batch by 30 June 2020 for years dating as far back as possible in the past, and thereafter by the deadline stipulated for red coral in the recommendation referred to above.

52. CPCs whose authorized fishers target red coral shall ensure that a mechanism for adequate scientific monitoring of red coral fisheries and red coral harvest is in place to allow the SAC to provide descriptive information and advice on at least:

- a) fishing effort deployed (e.g. weekly, monthly or annual number of fishing trips or dive time, if possible) and overall catch levels at the bank, GFCM statistical grid, national or supranational level;
- b) reference points with a view to improving this multiannual management plan in line with MSY objective and low risk of stock collapse;
- c) biological and socio-economic effects of alternative management scenarios, including input/output and/or technical measures; and
- d) possible additional spatio-temporal closures in order to preserve the sustainability of red coral fisheries.

53. The use of remotely operated vehicles (ROVs) shall be allowed until 31 December 2022 for scientific purposes only and within CPC authorized research programmes led by scientific institutions. Such authorizations shall be without prejudice to stricter measures adopted by CPCs.

54. It shall be strictly forbidden to commercialise red coral colonies harvested within the framework of such research programmes.

55. Each CPC intending to use ROVs shall submit the following information to the GFCM Secretariat, at least one month before the start of the campaign. The GFCM Secretariat shall immediately communicate to all CPCs the following information:

- a) objectives and protocol followed during the research campaign;
- b) list of vessels authorized to use ROVs;
- c) duration of the research campaign mission involving the use of ROVs; and
- d) geographical coordinates of the areas where ROVs will be used for research purposes.

56. Each year, the SAC shall evaluate the use of ROVs and report to the GFCM annual session.

57. CPCs may deploy national scientific observers on the vessels that are used to harvest red coral in the Mediterranean Sea. In this case, CPCs are encouraged to report on the information collected to the GFCM Secretariat.

58. In 2020, the GFCM shall launch the research programme on red coral endorsed by the SAC at its twenty-first session and referred to in Appendix 9 to its report. The research programme shall be completed in 2022. The research programme shall in particular evaluate the trigger for closure as established in paragraph 22.

59. The GFCM may adopt any urgent measure in case of risk of collapse of red coral identified by the SAC.

60. At its twenty-fifth session, the SAC shall advise the GFCM, based on the review and assessment of the following elements:

- a) results of the red coral research programme launched by the GFCM Secretariat;
- b) lessons learnt from the pilot phase of the CDS, in coordination with the CoC;
- c) effectiveness of the management measures in place in CPCs;
- d) effectiveness of this multiannual management plan with regards to the objectives pursued; and
- e) any other scientific information available.

PART IX

Final provisions

61. In light of available information, the GFCM may adopt appropriate measures concerning, *inter alia*, control measures, catch documentation, authorized areas for red coral harvesting, the use of ROVs for scientific purposes only, the minimum harvesting depth and the MCRS.

62. Recommendations GFCM/35/2011/2, GFCM/36/2012/1, GFCM/40/2016/7 and GFCM/41/2017/5 are hereby repealed.

63. The provisions contained in this recommendation shall be applied without prejudice to stricter rules enforced in the CPCs.

Harvest control rules

| | |
|--|---|
| Proportion of undersize colonies in the harvest = 0% | No specific management action |
| 0% < proportion of undersize colonies in the harvest < 10% | If a national management plan is in place: no specific management action. If no plan: implement stricter control |
| 10% < proportion of undersize colonies in the harvest < 25% (= trigger) | Implement stricter control and survey the size structure of the population |
| Proportion of undersize colonies in the harvest > 25% (trigger) | Close the fishery in the area on precautionary grounds |

Fishing authorization

Subject to more detailed provisions under the GFCM data collection programme, the fishing authorization shall contain for each vessel authorized at least the following information:

- Vessel name (authorized vessel or vessel used for harvesting);
- Vessel register number (code assigned by the CPCs);
- GFCM registration number, where relevant (country ISO 3-alpha code + 9 digits);
- Port of registration (full name of the port);
- Previous name (if any);
- Previous flag (if any);
- Previous details of deletion from other registers (if any);
- International radio call sign (if any);
- VMS or other equipment for vessel geolocation (indicate Y/N);
- Vessel type, length overall (LOA) and gross tonnage (GT) and engine power expressed in kW;
- Safety and security equipment to host observer(s) on board (indicate Y/N);
- Time period authorized for fishing red coral;
- Area(s) authorized for fishing red coral: GSA(s) and rectangles of the GFCM statistical grid; and
- Participation in research programmes led by national/international scientific institutions (indicate Y/N; provide some description).

Harvest certificate for the GFCM pilot catch documentation scheme

| HARVEST CERTIFICATE FOR THE GFCM RED CORAL PILOT CATCH DOCUMENTATION SCHEME (CDS) | | | |
|--|---------------------|---|---|
| Harvest document number | | Validating authority | |
| 1. Name of the fishing vessel master, if applicable | | Address - Tel/fax/email | |
| Signature and stamp of the fishing vessel master | | | |
| 2. Vessel name and registration No | | Flag and home port | Call sign/IMO (where applicable) |
| | | Inmarsat/fax/telephone number/email | |
| 3. Port | | | |
| | | Port of departure and country | Port of landing and country |
| 4. Authorized fisher(s) on board | | Name - Address - Tel/fax/email | |
| Fishing licence number(s) - valid to (date), if applicable | | Red coral fishing authorization number - valid to (date) | Signature of the holder |
| 5. Harvest area (coordinates Long., Lat.) | Harvest date | Estimated live weight (kg) | Landed live weight (kg) |
| a. | | | |
| b. | | | |
| c. | | | |
| d. | | | |
| e. | | | |
| 6. Flag state authority validation | | | |

| | | |
|--|--------------------------------|-----------------------|
| Name and title | Signature | Date and stamp |
| 7. Name of the exporter, if applicable | Address - Tel/fax/email | |
| Signature and stamp of the exporter – Date | | |
| 8. Export authority validation - Name and title | Signature | Date and stamp |
| 9. Name of the importer | Address - Tel/fax/email | |
| Signature and stamp of the importer – Date | | |
| 10. Import authority validation Name and title | Signature | Date and stamp |

Terms of reference for the CoC Working Group on a permanent GFCM red coral catch documentation scheme

1. The objective of the catch documentation scheme (CDS) is to help curb illegal, unreported and unregulated (IUU) fishing. The working group shall develop an effective and cost-efficient permanent CDS ensuring that individual batches of red coral batches are labelled with a unique identifier (code, tag or other, as appropriate) and documented all along the value chain, from authorized fishers to the final seller. The CDS shall also be designed to inform final customers on the red coral products they buy, including the conditions, date and place of catch and transformation.

2. In developing the CDS and accompanying documents, the working group shall take into account the following:
 - a. experience gathered and best practices identified during the pilot project;
 - b. overall conservation status of red coral;
 - c. specificities of red coral fisheries in the contracting parties and cooperating non-contracting parties (CPCs);
 - d. specificities of red coral, including its high potential for long-term storage;
 - e. information (including qualitative) on the level of IUU fishing;
 - f. schemes in force in CPCs and their effectiveness, if appropriate;
 - g. respective administrative capacities of CPCs;
 - h. schemes in force in various regional fisheries management organizations such as the International Commission for the Conservation of Atlantic Tunas (ICCAT), the North East Atlantic Fisheries Commission (NEAFC) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), as well as the FAO Voluntary Guidelines for Catch Documentation Schemes; and
 - i. schemes in force in the jewellery industry, or in extractive industries, if appropriate.

3. The CDS shall ensure, *inter alia*, the traceability of red coral catches along the value chain from the first authorized operator (fisher) to the final buyer. Each red coral batch shall be labelled with a unique identifier (code, tag or other, as appropriate).

Guidelines for the development of inspection plans for red coral

Inspection plans shall clearly define the following:

- a) means of control: description of human, technical and financial means specifically available for the implementation of the plans; and
- b) inspection strategy (including inspection protocols).

Recommendation GFCM/43/2019/5
on a multiannual management plan for sustainable demersal fisheries in the Adriatic Sea
(geographical subareas 17 and 18)

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that, in giving effect to the objective of the GFCM Agreement, the GFCM shall adopt recommendations on conservation and management measures aimed at ensuring the long-term sustainability of fishing activities, in order to preserve the marine living resources and the economic and social viability of fisheries and that, in adopting such recommendations, the GFCM shall give particular attention to measures to prevent overfishing and minimize discards as well as to the potential impacts on small-scale fisheries and local communities;

CONSIDERING that the GFCM shall adopt management measures based on an ecosystem approach to fisheries to guarantee the maintenance of stocks at levels which can produce maximum sustainable yield (MSY);

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration requires that, in the context of establishing an ecosystem-based fisheries management framework, all key fisheries should be managed with management plans;

CONSIDERING that the GFCM shall apply the precautionary approach in accordance with the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 and the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO);

CONSIDERING that the FAO Code of Conduct for Responsible Fisheries provides that states “should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment”;

CONSIDERING that all measures formulated by the GFCM shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

RECALLING Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application;

CONSIDERING that fishing mortality should be kept below safe thresholds to ensure long-term high yields while limiting the risk of stocks collapse and guaranteeing stable and more viable fisheries;

CONSIDERING the socio-economic importance of fisheries and the need to ensure their sustainability;

NOTING that the Scientific Advisory Committee on Fisheries (SAC) has recurrently considered that the stocks of European hake, Norway lobster, red mullet, common sole, mantis shrimp and deep-water rose shrimp are in overexploitation in geographical subareas (GSAs) 17 and 18;

NOTING that the SAC, at its twenty-first session, advised that management measures should be implemented and highlighted the importance of identifying and implementing additional fisheries restricted area (FRAs), ensuring that fishing capacity is not increased while fishing effort is managed in a sustainable way and minimum landing sizes are enforced;

ADOPTS, in conformity with Articles 5 b), 8 b), and 13 of the GFCM Agreement, the following recommendation:

PART I

General objectives, geographical scope and definitions

General objectives

1. The present recommendation establishes a multiannual management plan for sustainable demersal fishing activities in the Adriatic Sea (GSAs 17 and 18) exploiting demersal stocks, by means of otter-trawling, beam-trawling, bottom pair trawling and otter twin trawling, including the key stocks listed in Annex 1. On the basis of SAC advice, the scope of this recommendation could be extended to other types of gear and other stocks.
2. The multiannual management plan shall be consistent with the precautionary approach. It shall be designed to provide high long-term yields consistent with the MSY and to guarantee a low risk of stocks collapse while maintaining sustainable and relatively stable fisheries. It shall take account of the mixed nature of the fisheries and the dynamics between the stocks driving them.
3. Contracting parties and cooperating non-contracting parties (CPCs) whose vessels are actively fishing in GSAs 17 and 18 agree to implement such multiannual management plan for the concerned fisheries and in accordance with the general and specific objectives and measures set by this recommendation.
4. A set of transitional precautionary management measures for the Adriatic Sea shall be developed in order to ensure that, while minimizing socio-economic impacts and finalizing SAC scientific advice, the stocks and fisheries progress towards biologically sustainable levels.
5. The multiannual management plan shall also pursue the reduction in illegal, unreported and unregulated (IUU) fishing activities in GSAs 17 and 18.

Geographical scope

6. The multiannual management plan provided by the present recommendation shall apply in GSAs 17 and 18.

Definitions

7. For the purpose of this recommendation, the following definitions shall apply:
- a) “ F_{msy} ” means the value of the estimated fishing mortality that, with a given fishing pattern and under current average environmental conditions, gives the long-term maximum sustainable yield;
 - b) “ B_{lim} ” means the limit reference point, expressed as spawning stock biomass below which there may be reduced reproductive capacity;
 - c) “ B_{pa} ” means the precautionary reference point, expressed as spawning stock biomass, that ensures that the spawning stock biomass has less than 5 percent probability of being below B_{lim} ;
 - d) “Adriatic Sea” means GSAs 17 and 18 as defined in Resolution GFCM/33/2009/2 on the establishment of geographical subareas in the GFCM area of application, amending Resolution GFCM/31/2007/2;
 - e) “Vessel actively fishing” means any trawler targeting the key species listed in Annex 1 and entitled by the CPC whose flag it is flying to carry out specific fishing operations, during a specified period, in a given area or for a given fishery under specific conditions;
 - f) “Key stocks” means marine organisms pertaining to the species as defined in Annex 1 of the current recommendation;
 - g) “Fleet segment” means group of vessels operating with combinations of gear types and vessel length classes as identified in Annex 3 and targeting key stocks as defined in Annex 1
 - h) “Illegal, unreported and unregulated fishing” or “IUU fishing” means the activities set out in paragraph 3 of the 2001 FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IOPA-IUU) and following the provisions of Recommendation GFCM/41/2017/7;
 - i) “Designated landing point” means ports or places close to the shore designated by CPCs according to Recommendation GFCM/40/2016/1 on a regional scheme on port state measures to combat illegal, unreported and unregulated fishing in the GFCM area of application, including offshore terminals and other installations for landing, transshipping, packaging, processing, refuelling or resupplying of fishing vessels, where landings, transshipments, packaging and/or processing operations of fishery products are permitted.

PART II **Specific objectives**

8. The multiannual management plan shall aim at contributing to the objectives mentioned in Article 2 and the principles listed in Article 5 of the GFCM Agreement.
9. The multiannual management plan shall, in particular:
- a) apply the precautionary approach to fisheries management;
 - b) ensure that exploitation levels of key stocks are at the MSY by 2026;
 - c) prevent increase in fishing capacity in relation to either year 2015 or the average of 2015–2017, and in fishing effort in relation to either 2015 or the average of three years within the range 2015–2018;
 - d) protect nursery and spawning areas as well as essential fish habitats that are important for the most important commercial demersal stocks;

- e) contribute to the elimination of discards, by avoiding and reducing unwanted catches and ensuring that all catches are landed;
- f) provide measures to adjust the fishing capacity and effort of the fleets to levels of fishing mortality consistent with the MSY, with a view to having economically viable fleets and without overexploiting marine biological resources.

10. The multiannual management plan shall be based on a two-step approach where: i) in the first two years, a provisional fishing effort regime shall be applied; and ii) in 2021, on the basis of new scientific data, the SAC shall evaluate the state of the stocks and propose yearly fishing effort quotas, in line with the provisions contained in Parts II, IV and V of this recommendation, thus contributing to reaching F_{msy} and staying within safe biological limits.

11. In 2020 and 2021, a transitional fishing effort regime shall be established. CPCs shall jointly ensure that, by 2021, the overall fishing effort (number of fishing days) deployed by fleets actively fishing for key demersal stocks using bottom otter trawls (OTB), beam trawls (TBB), bottom pair trawls (PTB) and otter twin trawls (OTT) and operating in GSAs 17 and 18, shall be reduced by at least 12 percent for OTB and 16 percent for TBB with respect to the annual effort exerted in 2015 or to the three-year average within the 2015–2018 period. Each CPC shall ensure that its effort reduction is proportional to its contribution to the total effort in the reference year in the area by the gear groups in Annex 4, as reported through GFCM Data Collection Reference Framework (DCRF) Task V-2 in 2017. Such contribution shall be calculated according to the formula and gear groups in Annex 4. The overall fishing effort reduction shall be equally divided across the transitional years, resulting in the effort quotas listed in Annex 4 that shall apply in 2020 and 2021.

12. A five-year fishing effort regime shall be established for 2022–2026. CPCs shall communicate their yearly fishing effort data to the GFCM Secretariat, in line with the provisions of paragraph 36. Each year, on the basis of SAC advice, the GFCM shall establish yearly effort quotas. Such quotas shall be expressed in fishing days per CPC and effort group for the fleet segments and gear listed in Annex 3 and shall allow for the achievement of the objectives set in paragraph 9. The GFCM shall ensure that, for each CPC, increase or decrease towards effort allocation is in line with the formula in Annex 4 and with total effort in the reference year in the area by the effort groups listed in Annex 3, as reported starting from 2021.

13. The provisions in paragraphs 11 and 12 shall not apply to national fleets operating with OTB and fishing for less than 1 000 days during the reference period mentioned in paragraph 9 c); such national fleets shall not exceed the effort limit of 3 000 fishing days per year.

Targets

14. The operational objective of the multiannual management plan shall be to maintain fishing mortality for key stocks listed in Annex 1 within the agreed precautionary reference values for F_{msy} , with a view to achieving or maintaining F_{msy} level, in accordance with the objectives of this recommendation.

Safeguards

15. Where, based on SAC scientific advice, the spawning biomass of any of the key stocks is below B_{pa} , the GFCM shall take remedial measures to ensure the rapid return of the concerned stocks to levels above those capable of producing MSY. In particular, fishing effort shall be set at levels consistent with producing a fishing mortality lower than F_{msy} , taking into account the decrease in biomass.

16. Where, based on SAC scientific advice, the spawning biomass of any of the key stocks is below B_{lim} , the GFCM shall take further remedial measures to ensure the rapid return of the concerned stocks to levels above those capable of producing MSY. In particular, such remedial measures may include suspending the targeted fishery for the concerned stocks and an adequate reduction of fishing effort or catch limit.

Part III

Technical measures

Minimum conservation reference size

17. Recommendation GFCM/40/2016/5 establishing a minimum conservation reference size for European hake in the Mediterranean Sea shall apply.

18. The minimum conservation reference size shall be set as follow:

- a) for deep-water rose shrimp, at 20 mm carapace length (CL);
- b) for Norway lobster, at 20 mm CL or 70 mm total length (TL);
- c) for common sole, at 20 cm TL; and
- d) for red mullet, at 11 cm TL.

19. Specimens of key stocks smaller than the minimum conservation reference size as defined in paragraphs 17 and 18 shall not be retained on board, transshipped, transferred, landed, stored, sold, displayed or offered for sale.

20. CPCs shall communicate annually to the GFCM Secretariat the specific modalities they apply under the provisions stipulated in paragraphs 17 to 19, including landing obligations aiming at avoiding discards which are in force in some CPCs as well as landing inspection modalities when a flexibility scheme is foreseen at the national level.

Fisheries restricted areas

21. Recommendation GFCM/41/2017/3 on the establishment of a fisheries restricted area in the Jabuka/Pomo Pit in the Adriatic Sea shall apply.

22. FRAs shall be established for the conservation and management of stocks in the Adriatic Sea. The SAC shall examine the possibility of establishing new FRAs in the southern Adriatic and in the northern Adriatic Sea. CPCs concerned should possibly submit necessary data for the evaluation of FRAs at the latest one month ahead of the 2020 Subregional Committee for the Adriatic Sea (SRC-AS) and support the work for the evaluation of FRAs in line with the roadmap outlined in Annex 2.

23. Any fishing activity with OTB, PTB, OTT and TBB in FRAs established as per paragraphs 21 and 22 shall be prohibited unless differently provided for by a specific recommendation setting management rules for any of these areas.

24. The SAC may identify additional nursery or spawning areas for any of the demersal stocks in the Adriatic Sea and, in the case where the stock is out of safe limits, the SAC may propose additional measures, which may include the restriction of fishing activity outside territorial waters.

Spatial and temporal closure

25. For conservation purposes, CPCs shall close the coastal zone, irrespective of depth, out to six nautical miles, or four nautical miles for vessels not allowed to fish beyond six nautical miles, to towed gear targeting demersal stocks, for a continuous period of at least eight weeks.

26. In alternative to paragraph 25, CPCs shall set a closure of at least 30 continuous days and covering at least 20 percent of territorial sea for fishing activities with OTB, PTB, OTT and TBB irrespective of their overall length in the areas and periods recognized as important for the protection of juveniles of demersal stocks. Such areas shall also account for migration routes and spatial patterns of juvenile distribution.

27. In order to define appropriate spatio-temporal restrictions in view of the sustainable management of the stocks referred to in Annex 1, CPCs shall communicate to the GFCM Secretariat, not later than 30 June 2020, and annually thereafter, the spatial restrictions, as defined in paragraphs 25 or 26, in the waters under their jurisdiction, that they apply with a view to protecting spawning and nursery areas for demersal stocks listed in Annex 1.

PART IV

Fleet management measures

28. CPCs shall ensure that the overall fleet capacity of the fleets operating with OTB, TBB, PTB and OTT and actively fishing for key demersal stocks, in terms of gross tonnage (GT) and/or gross registered tonnage (GRT), engine power (kW) and number of vessels, as recorded both in national and GFCM registers, does not exceed, over the duration of this recommendation, the fleet capacity for demersal fisheries in 2015 or its average over 2015–2017.

29. The provisions of paragraphs 9 c) and 28 shall not apply to national fleets operating with OTB and fishing for less than 1 000 days during the reference period mentioned in paragraph 9 c). The fishing capacity of such active fleets operating with OTB shall not increase by more than 50 percent with respect to the reference period.

30. Vessels authorized to fish for the key stocks listed in Annex 1 using OTB, PTB, OTT and TBB in the Adriatic Sea shall be listed by the CPC whose flag they are flying.

31. CPCs shall communicate to the GFCM Secretariat, no later than 31 January of each year, the list of vessels flying their flag and actively fishing for the key stocks listed in Annex 1 for the current year or forthcoming years. This list shall include, for each vessel, the information referred to in Annex 3 of Recommendation GFCM/42/2018/5 on a multiannual management plan for bottom trawl fisheries exploiting demersal stocks in the Strait of Sicily (geographical subareas 12 to 16, repealing Recommendations GFCM/39/2015/2 and GFCM/40/2016/4.

32. Vessels operating with OTB, PTB, OTT and TBB and exploiting demersal stocks in the Adriatic Sea shall only be allowed to carry out specific fishing activities if these are indicated in a valid fishing authorization issued by the competent authorities. Authorized vessels above 12 metres length shall be equipped with a vessel monitoring system (VMS) from 1 January 2021 and with an electronic logbook from 1 January 2022, while, for authorized vessels below 12 metres, the Compliance Committee (CoC) shall assess the most appropriate geopositioning and catch reporting systems.

33. Each CPC shall ensure adequate mechanisms are set up for the recording of each fishing vessel in a national fleet register, for the recording of the vessel's catches and fishing effort via the logbook as well as for the monitoring of fishing vessel activities and landings via catch and effort sampling surveys according to the rules stipulated by each CPC.

34. To explore a finer monitoring of deployed fishing effort in order to detect actual fishing hours, the GFCM shall launch a pilot project aimed at installing sensors on the vessel winches so to record and report in real time the shooting and hauling of deployed demersal towed gear.

35. The above provisions are without prejudice to Recommendation GFCM/33/2009/7 concerning minimum standards for the establishment of a vessel monitoring system in the GFCM area of application.

36. Starting from 1 January 2021, for the purpose of collecting fishing effort data for the establishment of a future fishing effort regime, CPCs shall report annually to the GFCM Secretariat by 30 June each year data from the previous year on kW * fishing days by gear and vessel length, with no merging of vessel length classes.

Part V

Scientific monitoring, adaptation and revision of the multiannual management plan

37. The SAC shall provide, on an annual basis as of 2020, advice on the status of key stocks in the Adriatic Sea, including specific objectives to maintain fishing mortality within agreed precautionary fishing mortality reference points and to maintain or restore key stocks to levels which can produce the MSY in accordance with the objectives set out in paragraph 1.

38. The SAC shall assess the biological, economic and social implications of implementing several management scenarios with the objective of restoring and maintaining the stocks' population above levels which can produce the MSY.

39. Based on SAC advice, the GFCM may review the content of the multiannual management plan.

40. Where SAC advice indicates that the general or specific objectives of the multiannual management plan are not being met, the GFCM shall decide on additional and/or alternative management measures to contribute to achieving those objectives.

41. If, for any reason (e.g. lack of appropriate data), the SAC is not in a position to provide an accurate advice on the stock status of the key stocks listed in Annex 1 and on their exploitation levels, the GFCM shall decide on the most appropriate management measures to ensure sustainability of the fisheries. Such measures shall be based on SAC advice, be in accordance with the precautionary approach and take into consideration environmental and socio-economic elements in a way that guarantees the sustainability of the fisheries.

42. In 2020, the SAC shall evaluate the impact of bottom longlines targeting the adult spawning population of the Adriatic stock of European hake. The SAC shall assess the need to incorporate the fleets operating with such gear in this multiannual management plan and the need to adopt specific spatial measures to protect the spawning component of the European hake stock in the Adriatic Sea.

Part VI

Specific measures to address IUU fishing activities

43. CPCs shall establish a mechanism to ensure that vessels actively fishing in the Adriatic Sea declare all the catch and bycatch of the key stocks listed in Annex 1. The obligation to electronically declare catch shall apply from 1 January 2022, irrespective of the volume of the catch, to vessels above 12 metres length, while for vessels below 12 metres, the CoC shall assess the most appropriate system of catch reporting.

44. Each CPC shall designate landing points where landings by vessels actively fishing for key stocks in the Adriatic Sea shall take place.

45. For each designated port, CPCs shall specify permitted landing and transshipping times and places.

46. CPCs shall carry out inspections on the basis of a risk analysis.

47. It shall be prohibited to land or transship from fishing vessels any quantity of key stocks fished using OTB, PTB, OTT and TBB in the Adriatic Sea at any place other than the ports designated by CPCs in accordance with paragraph 44 above.

48. CPCs shall communicate to the GFCM Secretariat, not later than 30 November each year, any change to the list of designated landing points where landings of key stocks in the Adriatic Sea may take place.

49. CPCs shall engage to cooperate in the fight against IUU fishing activities, in particular through sharing information and gathering intelligence to fight against illegal activities.

50. Part VI of this recommendation is without prejudice to Recommendation GFCM/41/2017/7.

Part VII

Monitoring, control and surveillance programme

51. Starting from 1 January 2021, authorized trawl vessels actively fishing for the key stocks listed in Annex 1 shall be equipped, with VMS, if above 12 metres length; for vessels below 12 metres, the CoC shall assess the most appropriate system of geopositioning, allowing control authorities to track their activities.

52. Notwithstanding the provisions of paragraph 1 of Recommendation GFCM/35/2011/1 concerning the establishment of a GFCM logbook, amending Recommendation GFCM/34/2010/1, all catches of key stocks, irrespective of the live weight of the catch, as well as catches of non-target species in excess of 50 kg, shall be reported in the logbook.

53. CPCs shall monitor the consumption of the effort quota, or the effort limit in accordance with paragraph 13, expressed in fishing days until 2021 (Annex 4) and in fishing days by effort group (Annex 3) thereafter. As from the date when a quota effort is exhausted or an effort limit is reached, the concerned CPC shall communicate it to the GFCM Secretariat and prohibit fishing in the fishery where the effort quota or limit has been reached by all or part of the fishing vessels flying its flag.

Part VIII

Pilot inspection scheme

54. Upon request of CPCs, with the assistance of the GFCM Secretariat, the GFCM shall establish, in 2020, a pilot project with a view to establishing an observation and inspection programme in order to ensure compliance with the conservation and management measures contained in this recommendation.

55. Such observation and inspection programme shall be based on the results of the pilot project and adopted before the end of 2020. It shall comprise, *inter alia*, the following elements:

- a) high seas inspection;
- b) procedures for an effective investigation on an alleged violation of the conservation and management measures contained in this recommendation and for reporting to the GFCM on the actions taken, including procedures for exchanging information;
- c) provisions for appropriate action to be taken when inspections reveal serious violations as well as the expedient and transparent follow-up of such actions in order to uphold the flag state's responsibility within the intended programme;
- d) port inspections;
- e) monitoring of landings and catches, including statistical follow-up for management purposes;
- f) specific monitoring programmes, including boarding and inspection; and
- g) observer programmes.

Part IX
National management plans

56. In order to ensure adequate conservation of demersal stocks, CPCs shall adopt fisheries management measures or national management plans in the Adriatic Sea.

57. CPCs shall notify the GFCM Secretariat, from 31 January 2020, of the management measures or management plans adopted at the national level. Where appropriate, should these measures be modified, CPCs shall communicate such modifications by 31 January of the following year.

Final provisions

58. The multiannual management plan established by this recommendation remains in force for seven years from the date of its adoption.

59. The measures in this recommendation shall be without prejudice to stricter measures adopted by the CPCs.

60. On the basis of SAC scientific advice, the GFCM may revise this recommendation.

List of key stocks addressed by this recommendation

| Name | Scientific name | GSA | |
|------------------------|---------------------------------|-----|----|
| | | 17 | 18 |
| European hake | <i>Merluccius merluccius</i> | X | X |
| Norway lobster | <i>Nephrops norvegicus</i> | X | X |
| Common sole | <i>Solea solea</i> | X | |
| Deep-water rose shrimp | <i>Parapenaeus longirostris</i> | X | X |
| Red mullet | <i>Mullus barbatus</i> | X | X |

Terms of reference towards the establishment of FRAs in the Adriatic Sea

In the wake of the positive implementation of the Jabuka/Pomo pit FRA, with similar cooperative spirit and recognizing the value of adopting similar measures in the rest of the Adriatic Sea, work should progress towards the establishment of FRAs in the southern Adriatic and in the northern Adriatic.

The following steps are planned:

1. CPCs separately evaluate the feasibility of FRAs, in consultation with national stakeholders
2. The key components should cover vulnerable marine ecosystems (VME), essential fish habitats (EFH), spatial fishing fleet dynamics and the socio-economic impacts, as provided by the national administrations.
3. Bilateral discussions are held between CPCs regarding potential FRAs.
4. A workshop is convened with CPCs, scientists and stakeholders, and with the support of the FAO AdriaMed project, to examine all key components for the establishment of new FRAs.

The working group, tentatively before the next Subregional Committee for the Adriatic Sea shall finalize and agree on all the elements that need to be contained in the FRA proposal as outlined in the “Standard form for the submission of proposals for GFCM fisheries restricted areas in the Mediterranean and the Black Sea”.

Annex 3

Effort groups as defined for the combination of gear type and vessel length class (“fleet segment”) accounting for at least 5 percent of the landings in 2017

| Gear type | Geographical subareas (GSAs) | Stocks concerned | CPC | Overall length of vessels ¹ | Effort group code | Fishing days ² |
|---------------------------------------|------------------------------|--|-----|--|-------------------|---------------------------|
| Single boat bottom otter trawls (OTB) | 17–18 | Red mullet; European hake; deep-water rose shrimp and Norway lobster | | < 12 m | OTB12< | |
| | | | | ≥ 12 m and < 24 m | OTB12-24 | |
| | | | | ≥ 24 m | OTB>24 | |
| Beam trawls (TBB) | 17 | Common sole | | < 12 m | TBB12< | |
| | | | | ≥ 12 m and < 24 m | TBB12-24 | |
| | | | | ≥ 24 m | TBB>24 | |
| Bottom pair trawls (PTB) | 17–18 | Red mullet; European hake; deep-water rose shrimp and Norway lobster | | < 12 m | PTB12< | |
| | | | | ≥ 12 m and < 24 m | PTB 12-24 | |
| | | | | ≥ 24 m | PTB >24 | |
| Twin bottom otter trawls (OTT) | 17–18 | Red mullet, European hake, deep-water rose shrimp and Norway lobster | | < 12 m | OTT12< | |
| | | | | ≥ 12 m and < 24 m | OTT 12-24 | |
| | | | | ≥ 24 m | OTT >24 | |

¹ Fleet segments and gear will be simplified once effort data is available.

² This data will become available from 2021.

Effort allocation formula

Allocation formula where effort quotas are made proportional to the contribution of CPCs to the total effort, in a given reference year and effort group:

$$[\text{CPCa reduction} = \text{Overall_reduction} * (\text{CPCa}^2 / (\text{CPCa}^2 + \text{CPCb}^2 + \text{CPCc}^2 + \text{CPCd}^2 + \text{CPCe}^2))]$$

For the number of fishing days reported via the DCRF Task V-2 in 2017, on the basis of the reference year 2015 or of the average over 2015–2018, a global reduction of 12 percent for OTB and 16 percent for TBB is established for 2020–2021.

The above formula is used to allocate the fishing days quota by CPC and gear as reported in table below.

| Gear type | Geographical subareas (GSAs) | Number of fishing days | | | | | |
|---------------------------------------|------------------------------|------------------------|---------|--------------|--------------|-----------------------------|-----------------------------|
| | | EU 2020 | EU 2021 | Albania 2020 | Albania 2021 | Montenegro 2020 | Montenegro 2021 |
| Single boat bottom otter trawls (OTB) | 17–18 | 147 606 | 137 046 | 23 124 | 22 748 | Not applicable ¹ | Not applicable ² |
| Beam trawls (TBB) | 17 | 8 663 | 7 910 | | | | |

¹ Montenegro shall not exceed the effort limit of 3 000 fishing days per year in accordance with paragraph 13.

² Montenegro shall not exceed the effort limit of 3 000 fishing days per year in accordance with paragraph 13.

Recommendation GFCM/43/2019/6
on management measures for sustainable trawl fisheries targeting giant red shrimp and blue
and red shrimp in the Strait of Sicily (geographical subareas 12, 13, 14, 15 and 16)

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that, in giving effect to the objective of the GFCM Agreement, the GFCM shall adopt recommendations on conservation and management measures aimed at ensuring the long-term sustainability of fishing activities, in order to preserve marine living resources and the economic and social viability of fisheries and that, in adopting such recommendations, the GFCM shall give particular attention to measures to prevent overfishing and minimize discards as well as to the potential impacts on small-scale fisheries and local communities;

RECALLING that in giving effect to the objective of the GFCM Agreement, the GFCM shall foster, as appropriate, a subregional approach to fisheries management and aquaculture development in order to better address the specificities of the Mediterranean and the Black Sea;

CONSIDERING that the GFCM shall adopt management measures based on an ecosystem approach to fisheries to guarantee the maintenance of stocks at levels which can produce maximum sustainable yield (MSY);

CONSIDERING that the GFCM shall apply the precautionary approach in accordance with the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO);

RECALLING the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995, the FAO Code of Conduct for Responsible Fisheries and the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas;

CONSIDERING that the FAO Code of Conduct for Responsible Fisheries provides that states “should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment”;

CONSIDERING that all measures formulated by the GFCM shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration calls upon Mediterranean riparian countries to enhance multilateral cooperation and implement actions to improve the sustainability of resources, particularly with regard to data collection and scientific advice, the implementation of an ecosystem-based fisheries management framework, compliance and elimination of illegal, unreported and unregulated (IUU) fishing, support to sustainable small-scale fisheries and aquaculture and greater solidarity and coordination;

RECALLING Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application;

CONSIDERING the advice of the Scientific Advisory Committee on Fisheries (SAC) at its twenty-first session to extend precautionary management measures contained in Recommendation GFCM/42/2018/3 on a multiannual management plan for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Levant Sea (geographical subareas 24, 25, 26 and 27) and in Recommendation GFCM/42/2018/4 on a multiannual management plan for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Ionian Sea (geographical subareas 19, 20 and 21);

CONSIDERING that fishing mortality should be kept below safe thresholds to ensure long-term high yields while limiting the risk of stocks collapse and guaranteeing stable and more viable fisheries;

CONSIDERING the socio-economic importance of fisheries and the need to ensure their sustainability;

CONSIDERING that certain fisheries management measures need to be revised and adapted to the evolution of both the status of exploited stocks and scientific knowledge and that an appropriate method shall be established to this end;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following recommendation:

PART I

General objectives, geographical scope and definitions

General objectives

1. The present recommendation establishes management measures for sustainable trawl fishing activities in the Strait of Sicily (geographical subareas [GSAs] 12, 13, 14, 15 and 16).
2. The contracting parties and cooperating non-contracting parties (CPCs) whose vessels are actively fishing in GSAs 12 to 16 agree to implement such management measures for the concerned fisheries in accordance with the general and specific objectives set by this recommendation.

Geographical scope

3. The management measures established by the present recommendation shall apply to GSAs 12 to 16.

Definitions

4. For the purpose of this recommendation, the following definitions shall apply:
- a) “Strait of Sicily” means GSAs 12, 13, 14, 15 and 16 as defined in Resolution GFCM/33/2009/2 on the establishment of geographical subareas in the GFCM area of application, amending Resolution GFCM/31/2007/2;
 - b) “vessel actively fishing” means any trawler in the Strait of Sicily targeting the key species listed in the annex to this recommendation and entitled by the CPC whose flag it is flying to carry out specific fishing operations, during a specified period, in a given area or for a given fishery under specific conditions;
 - c) “fishing day” means any continuous period of 24 hours, or part thereof, during which a vessel is present within GSAs 12 to 16 and is searching for fish, shooting, setting, towing, hauling of a fishing gear, taking catch on board, transshipping, retaining on board, processing on board, transferring and landing fish and fishery products;
 - d) “key species” means marine organisms pertaining to the species as defined in the annex to this recommendation;

PART II

Scientific monitoring, adaptation and revision

5. CPCs shall ensure annually an adequate scientific monitoring of the status of the key species in the Strait of Sicily.
6. The Scientific Advisory Committee on Fisheries (SAC) shall assess the biological, economic and social implications of implementing several management scenarios with the objective of restoring and maintaining the species population above levels that can produce MSY.

PART III

Fleet management measures

7. Vessels authorized to fish for the key species listed in the annex to this recommendation in the Strait of Sicily shall be listed by the CPC whose flag they are flying. Vessels not listed by the CPC whose flag they are flying shall not catch, retain on board, transship, land, store or sell any of the key species.
8. CPCs shall communicate to the GFCM Secretariat, not later than 30 June of each year, the list of the vessels flying their flag and actively fishing for the key species listed in the annex to this recommendation for the current year or for the forthcoming years. This list shall include, for each vessel, the information referred to in Annex 3 of Recommendation GFCM/42/2018/5 on a multiannual management plan for bottom trawl fisheries exploiting demersal stocks in the Strait of Sicily (geographical subareas 12 to 16).
9. The vessels actively fishing for the key species listed in the annex to this recommendation shall comply with the obligations established under Resolution GFCM/37/2013/2 on guidelines on the management of fishing capacity in the GFCM area of application, and provide national authorities with a detailed report of their fishing activities, including as minimum requirements: operating days, operating area and total catch of key species. This information shall be transmitted to the GFCM Secretariat at least on a yearly basis.

10. CPCs may designate, where applicable, additional spatio-temporal restrictions to those already established where fishing activities may be banned or restricted in order to protect aggregation areas of juveniles of the key species. Where applicable, CPCs shall notify to the GFCM Secretariat, by 1 January 2020, the list of these areas and the restrictions applied.

PART IV

Management of fishing effort

12. CPCs shall communicate to the GFCM Secretariat for the first time, not later than 1 June 2020, the list of all their vessels actively fishing for the key species listed in the annex to this recommendation together with their historic level of fishing effort.

13. Such list shall contain, for each vessel, the information referred to in Annex 3 of Recommendation GFCM/42/2018/5.

14. CPCs shall ensure that their fleet capacity or fishing effort is maintained at the levels authorized and implemented during the recent years for the exploitation in the Strait of Sicily of the key species listed in the annex to this recommendation.

15. CPCs shall promptly notify the GFCM Secretariat of any addition to, deletion from and/or modification of the fishing fleets for key species at any time such changes may occur.

16. The GFCM Secretariat shall maintain and update the list of fishing vessels authorized to fish for the key species and publish it on the GFCM website in a manner that is consistent with GFCM data confidentiality policy and procedures.

17. Each CPC shall ensure the set-up of adequate mechanisms for the recording of each fishing vessel in a national fleet register and for the recording of vessel catches and fishing effort via the logbook.

PART V

Specific measures to address IUU fishing

18. The obligation to declare catches shall apply irrespective of the volume of the catch.

19. Each CPC shall designate landing points where the landings by vessels actively fishing for key species in the Strait of Sicily shall take place.

20. It shall be prohibited to land or transship from fishing vessels any quantity of key species fished in the Strait of Sicily at any place other than ports designated by CPCs.

21. CPCs shall engage in cooperation for the fight against IUU fishing, in particular by sharing information and gathering intelligence to fight against illegal activities.

22. Part V is without prejudice to Recommendation GFCM/41/2017/7.

PART VI
Final provisions

23. The SAC shall provide, on an annual basis as from 2020, advice on the status of the key species in the Strait of Sicily including specific objectives to maintain fishing mortality within agreed precautionary fishing mortality reference points and to maintain or restore the stocks of the key species at levels that can produce MSY.

24. In 2022, the SAC shall provide scientific advice in order to enable the GFCM to establish a multiannual management plan for the species listed in the annex to this recommendation for the Strait of Sicily.

List of key species to be considered in this recommendation

| Name | Scientific name | GSA | | | | |
|---------------------|--------------------------------|-----|----|----|----|----|
| | | 12 | 13 | 14 | 15 | 16 |
| Giant red shrimp | <i>Aristaeomorpha foliacea</i> | X | X | X | X | X |
| Blue and red shrimp | <i>Aristeus antennatus</i> | X | X | X | X | X |

Recommendation GFCM/43/2019/7
on information on access agreements in the GFCM area of application

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration and the 2016 Bucharest Declaration both reflect the strong commitment of the GFCM to fight illegal, unreported and unregulated (IUU) fishing in the Mediterranean and in the Black Sea, respectively;

RECALLING Recommendation GFCM/40/2016/1 on a regional scheme on port state measures to combat illegal, unreported and unregulated fishing activities in the GFCM area of application;

RECALLING Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application;

CONCERNED by the continuation of IUU fishing activities in the GFCM area of application and that these activities diminish the effectiveness of GFCM conservation and management measures;

RECOGNIZING that the exchange of information on access agreements greatly facilitates monitoring, control and surveillance (MCS) activities in combating IUU fishing activities, and that there is a need to develop and implement such measures in a fair and non-discriminatory manner;

RECOGNIZING the need to ensure transparency among contracting parties and cooperating non-contracting parties (CPCs) in respect of conditions for accessing the waters of coastal states, in particular to facilitate joint efforts to combat IUU fishing;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following recommendation:

PART I
Access agreements

1. CPCs that allow foreign-flagged vessels to fish in waters under their jurisdiction for species managed by the GFCM in its area of application and CPCs whose vessels fish in waters under the jurisdiction of another CPC or non-contracting party for species managed by the GFCM pursuant to an agreement shall, individually or jointly, notify the GFCM Secretariat, prior to the beginning of fishing activities, of the existence of such agreement and provide the GFCM Secretariat with information concerning these agreements, including:

- a) CPCs, non-contracting parties or other entities involved in the agreement;
- b) time period or periods covered by the agreement;
- c) number of authorized vessels and gear types;
- d) stock or species authorized for harvest, including any applicable catch limits;
- e) CPCs' quota or catch limit to which the catch will be applied;

- f) MCS measures required by the flag CPC and coastal state involved with, for the coastal state, a particular specification of:
 - i) the national authority (contact coordinates) responsible for issuing fishing licenses or permits; and
 - ii) the national authority (contact coordinates) responsible for MCS activities;
 - g) data reporting obligations stipulated in the agreement, including those between the parties involved, as well as those regarding information that must be provided to the GFCM; and
 - h) copy of the written agreement.
2. For agreements in existence prior to the entry into force of this recommendation, the information specified in paragraph 1 shall be provided in advance of the forty-fourth session of the GFCM.
3. When an access agreement is modified in a manner that changes any of the information specified in paragraph 1, such changes shall be promptly notified to the GFCM Secretariat.
4. Consistent with GFCM data reporting requirements, flag CPCs involved in the agreements specified in paragraph 1 shall ensure that all target and incidental catches made pursuant to such agreements are reported.
5. Flag CPCs and coastal CPCs involved in the agreements specified in paragraph 1 shall provide a summary of the activities carried out pursuant to each agreement, including all catches made pursuant to such agreements, in their annual report to the GFCM.
6. In cases where coastal CPCs allow foreign-flagged vessels to fish in waters under their jurisdiction for species managed by the GFCM in its area of application, through a mechanism other than a CPC-to-CPC or CPC-to-non-contracting party agreement, the relevant coastal CPC shall be solely responsible for providing the information required by this recommendation. Flag CPCs with vessels involved in such an agreement shall endeavour to provide the GFCM with relevant information regarding the agreement as indicated in paragraph 1.

PART II

Role of the GFCM

7. The GFCM Secretariat shall develop a form for reporting the information specified in this recommendation and annually compile the submissions of the CPCs into a report to be presented to the Compliance Committee (CoC) for consideration at its session.
8. All information provided pursuant to this recommendation shall be consistent with domestic confidentiality requirements.

**Recommendation GFCM/43/2019/8
on the establishment of a list of vessels presumed to have carried out illegal, unreported and
unregulated fishing in the GFCM area of application, amending Recommendation
GFCM/33/2009/8**

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application;

DEEPLY CONCERNED that illegal, unreported and unregulated (IUU) fishing continues to undermine national and regional management of fish stocks, marine ecosystems and the livelihoods of legitimate fishers, and that these activities diminish the effectiveness of the GFCM conservation and management measures;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration and the 2018 Sofia Ministerial Declaration on Black Sea fisheries and aquaculture both reflect the strong commitment of the GFCM to fight IUU fishing in the Mediterranean and the Black Sea, respectively;

DETERMINED to address the challenge of an increase in IUU fishing activities by way of counter- measures to be applied in respect to the vessels, without prejudice to further measures adopted in respect of flag states under the relevant GFCM instruments;

CONSCIOUS of the urgent need to address the issue of fishing vessels as well as other vessels conducting IUU fishing and related activities in support of IUU fishing;

NOTING that the situation must be addressed in the light of all relevant international fisheries instruments and in accordance with the relevant rights and obligations established by other regional fisheries management organizations and the World Trade Organization (WTO);

DESIRING to streamline and improve IUU listing procedures and requirements in previous GFCM recommendations;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following recommendation:

MODIFICATION OF RECOMMENDATION GFCM/33/2009/8

1. Paragraph 13 of Recommendation GFCM/33/2009/8 shall be modified as follows:

“d) ensure that any of their nationals, whether a natural or legal person subject to their jurisdiction, do not benefit from supporting or engaging in IUU fishing activities (e.g. as operators, effective beneficiaries, owners, logistic and service providers, including insurance providers and other financial service providers)”.

2. The text of Annex 1 is repealed and replaced as follows:

“Information to be included in all IUU lists (draft and final)”

The draft IUU vessel list, provisional IUU vessel list and adopted IUU vessel list shall contain the following details, where available:

- a) name of vessel and previous name(s);
- b) flag of vessel and previous flag(s);
- c) name and address of the vessel owner and previous owners, including beneficial owners;
- d) owners' place of registration;
- e) vessel operator and previous operator(s);
- f) vessel call sign and previous call sign;
- g) IMO number;
- h) maritime, mobile service identity (MMSI) number;
- i) length overall;
- j) photographs of the vessel;
- k) date vessel was first included in the GFCM IUU list;
- l) date of alleged IUU fishing activity;
- m) position of alleged IUU fishing activity;
- n) summary of activities which justify the inclusion of the vessel on the list, together with references to all relevant documents informing and evidencing these activities; and
- o) outcome of any action undertaken.

Resolution GFCM/43/2019/1
on the mapping of measures applicable to fisheries restricted areas in the GFCM area of application

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

CONSIDERING that all measures formulated by the GFCM shall be based on the best scientific advice available, taking into account relevant environmental, economic and social factors;

HAVING REGARD to Article 8 b) ii) of the GFCM Agreement aiming “to minimize impacts of fishing activities on marine living resources and their ecosystems”;

HAVING REGARD to Article 8 b) iv) of the GFCM Agreement aiming “to establish fisheries restricted areas [FRAs] for the protection of vulnerable marine ecosystems [VMEs], including but not limited to nursery and spawning areas [...]”;

RECALLING Resolution GFCM/40/2016/2 for a mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries, particularly its Target 4, Output 4.2 a) on “the promotion of the identification and establishment of new FRAs to protect priority areas within ecologically or biologically significant marine areas (EBSAs), VMEs, etc. from harmful fishing activities, and the implementation of monitoring and control systems to ensure the efficiency of these spatial measures, also in relation to Target 3”;

RECALLING the 2017 Malta MedFish4Ever Ministerial Declaration, in particular its paragraph 38, as well as Recommendation GFCM/29/2005/1 on the management of certain fisheries exploiting demersal and deep-water species and the establishment of a fisheries restricted area below 1000 metres, Recommendation GFCM/33/2009/1 on the establishment of a fisheries restricted area in the Gulf of Lion to protect spawning aggregations and deep-sea sensitive habitats, Recommendation GFCM/41/2017/3 on the establishment of a fisheries restricted area in the Jabuka/Pomo Pit in the Adriatic Sea and Recommendation GFCM/30/2006/3 on the establishment of fisheries restricted areas to protect the deep-sea sensitive habitats;

NOTING the United Nations Sustainable Development Goal (SDG) 14.5 that specifically calls for conserving at least 10 percent of coastal and marine areas, consistent with national and international law;

UNDERLINING that FRAs are recognized as an area-based management tool that contributes to the maintenance and/or recovery of marine living resources to a healthy state and to the conservation of marine biodiversity, which is important for sustainable exploitation within an ecosystem approach to fisheries management, and that the GFCM has already taken action in this regard through the establishment of FRAs;

NOTING the importance of enhanced monitoring of these areas;

TAKING INTO ACCOUNT the conclusions of the Working Group on VMS and related Control Systems held in Albania in July 2019;

ADOPTS, in conformity with Articles 5 and 8 of the GFCM Agreement, the following resolution:

1. In 2019, the GFCM Secretariat should establish a mapping of all existing conservation measures and monitoring control and surveillance (MCS) measures that are currently in force and implemented in the FRAs established by the GFCM in its area of application.
2. On the basis of such mapping, the Working Group on illegal, unreported and unregulated fishing in the Mediterranean and Black Sea should establish a report assessing these measures in 2020.
3. This report should be communicated to the contracting parties and cooperating non-contracting parties before the sessions of the Compliance Committee (CoC) and the Scientific Advisory Committee on Fisheries (SAC) for their consideration in 2020.

Resolution GFCM/43/2019/2
on enhancing the conservation of cetaceans in the GFCM area of application

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING the 2002 Johannesburg Declaration on Sustainable Development and in particular its Plan of Implementation;

REAFFIRMING the principles of the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO) and recalling the precautionary and ecosystem approaches to fisheries management;

CONSIDERING that the incidental catch of cetacean species in relation to fishing activities may seriously affect cetacean populations in the GFCM area of application;

RECOGNIZING that some fishing operations carried out in the GFCM area of application, as well as the risk of unaccounted catch of cetaceans due to the loss of gear at sea (so-called “ghost fishing”), can adversely affect cetaceans and that there is a need to better understand the phenomenon in order to conceive and implement measures to mitigate such adverse effects;

RECALLING the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) whose objectives include the mitigation of negative impacts between cetaceans and fishing activities;

RECALLING the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and the listing of several cetacean species occurring in the convention area therein;

RECALLING Recommendation GFCM/22/1997/1 on the limitation of the use of driftnets in the Mediterranean and Recommendation GFCM/36/2020/2 on the mitigation of incidental catches of cetaceans in the GFCM area of application;

RECALLING the mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries, in particular its Target 4 “Minimize and mitigate unwanted interactions between fisheries and marine ecosystems and environment” and the development of actions related to output 4.2 “Healthier marine ecosystems and more productive fisheries”;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration commits signatories, in the context of establishing an ecosystem-based fisheries management framework, to ensure adequate protection of vulnerable species and sensitive habitats;

CONSIDERING the memorandum of understanding between the GFCM and the United Nations Environment Programme – Mediterranean Action Plan (UNEP-MAP) which aims for a closer strategic and operational cooperation among regional sea conventions, including for the mitigation of impacts from fisheries on marine habitats and species;

AIMING to reduce the bycatch of cetaceans in the GFCM area of application, thus contributing to improve the conservation status of these animals, in line with an ecosystem approach to fisheries management;

TAKING INTO ACCOUNT the advice of the Scientific Advisory Committee on Fisheries (SAC) on the need to endorse measures for the reduction of the bycatch of cetaceans;

RECOGNIZING, also, the need to collect more data and technical information in order to fully assess the advantages and risks associated with the possible adoption of other types of measures modifying the characteristics of fishing gear, as well as any other potential impact on fishing activities;

RECALLING Recommendation GFCM/36/2012/2 on the mitigation of incidental catches of cetaceans in the GFCM area of application;

RECALLING Recommendation GFCM/37/2013/2 on the establishment of a set of minimum standards for bottom-set gillnet fisheries exploiting turbot and for the conservation of cetaceans in the Black Sea;

ADOPTS, in conformity with Articles 5 b), 8 b) and 13 of the GFCM Agreement, the following resolution:

1. Contracting parties and cooperating non-contracting parties (CPCs) should encourage further actions to improve the conservation status of cetacean species.
2. CPCs should enhance data reporting information on incidental catch rates of cetaceans in line with the technical manual of the GFCM Data Collection Reference Framework (DCRF).
3. CPCs are invited to take the necessary steps to implement existing legislation and mitigation measures to eliminate incidental catch of cetaceans during fishing operations.
4. The SAC is requested to compile, assess and evaluate all available data, information and actions reported under Recommendation GFCM/36/2012/2 on the mitigation of incidental catches of cetaceans in the GFCM area of application, under the DCRF and any other source of additional information including scientific literature, surveys at sea, research projects etc.
5. The twenty-third session of SAC should report to the GFCM on the progress accomplished thereon, the identified gaps in knowledge and provide the necessary elements for setting future measures with the objective of conserving cetacean species populations in the Mediterranean and Black Sea.
6. At its forty-fifth session, upon receipt of advice from the SAC, the GFCM may consider, if appropriate, the adoption of further measures allowing for the achievement of the objectives of this resolution.

The provisions of this resolution are without prejudice to additional or stricter measures adopted or that could be adopted by CPCs.

Resolution GFCM/43/2019/3
on the implementation of a vessel monitoring system and an electronic logbook in the GFCM
area of application

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

CONSIDERING the high level of illegal, unreported and unregulated (IUU) fishing activities in the GFCM area of application and the need for adequate monitoring of catches;

CONSIDERING Recommendation GFCM/33/2009/7 concerning minimum standards for the establishment of a vessel monitoring system in the GFCM area of application;

CONSIDERING Resolution GFCM/38/2014/1 on guidelines on vessel monitoring system and related control systems in the GFCM area of application;

RECALLING the provisions of Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application;

RECALLING Recommendation GFCM/35/2011/1 concerning the establishment of a GFCM logbook, amending Recommendation GFCM/34/2010/1;

CONSIDERING the commitments of the 2017 Malta MedFish4Ever Ministerial Declaration and of the 2018 Sofia Ministerial Declaration on Black Sea fisheries and aquaculture;

RECOGNIZING that the operationalization of a centralized vessel monitoring system (VMS) and control system, including information deriving from this system, supports enhanced assessment of fisheries stocks, identification of fishing grounds and fishing activities, thus contributing to the achievement of the mid-term strategy established by Resolution GFCM/40/2016/2 Resolution GFCM/40/2016/2 for a mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries;

CONSIDERING that the technology to ensure the electronic reporting of catches (“electronic logbook”) has reached an adequate level of development to be operationalized, as demonstrated in various other regional fisheries management organizations (RFMOs) around the world;

NOTING the conclusions of the thirteenth session of the Compliance Committee (CoC);

ADOPTS in conformity with Articles 5 and 8 of the GFCM Agreement the following resolution:

PART I
Implementation of VMS in the GFCM area of application

1. The objective of this resolution is to provide GFCM with options for the establishment of a vessel monitoring system (VMS) in the GFCM area of application so that VMS and automated identification system (AIS) data could be used in support of monitoring and control of fisheries activities.

2. In 2020, on the basis of the results of voluntary pilot projects, the Working Group on VMS (WGVMS) should provide the CoC with recommendations including technical options for establishing such VMS.
3. The WGVMS should establish the terms of reference for pilot projects taking into consideration different types of centralised and regionalised VMS as currently deployed in other RFMOs.
4. The WGVMS should submit its recommendations to the fifteenth session of the CoC .
5. The WGVMS may also consider providing recommendations for other satellite VMS such as AIS in order to effectively monitor fishing activities in the GFCM area of application.
6. Based on the conclusions of the CoC, the forty-fifth session of the GFCM should consider adopting a recommendation in view of the implementation of a centralised/regionalised VMS and associated requirements in the GFCM area of application.
7. Access to centralised/regionalised VMS should comply with regulations and principles related to property and sovereignty.
8. Any development of a VMS for the GFCM should be without prejudice to and consistent with the existing CPCs' regulations on VMS . Any access to VMS data will be established in accordance with confidentiality rules in place.
9. The terms of reference for the WGVMS are provided in Annex 1 of this resolution.
10. This resolution repeals Resolution GFCM/38/2014/1 on guidelines on vessel monitoring system and related control systems in the GFCM area of application.

PART II

Implementation of an electronic logbook in the GFCM area of application

11. The WGVMS should provide the CoC with recommendations on strengthening the implementation of an electronic logbook (electronic reporting system [ERS]) with a view to establishing a voluntary pilot project on ERS for certain vessels fishing in the GFCM area of application.
12. The extended terms of reference for the WGVMS are provided in Annex 2 of this resolution.
13. The WGVMS should submit its recommendations and technical specifications to the fourteenth session of the CoC.
14. Based on the conclusions of the CoC, the forty-fourth session of the GFCM should consider adopting a recommendation in view of the implementation of a voluntary pilot project on ERS.
15. Any access to the electronic fishing logbook data should be established in accordance with confidentiality rules in place.

Terms of reference of the WGVMS for the formulation of recommendations, options and technical specifications towards the implementation of VMS in the GFCM area of application

The recommendations, options and technical specifications drafted by the WGVMS should, *inter alia*:

1. Consider the specifications and the state of play of implementation of VMS systems in the GFCM area of application, in particular in relation with the implementation of Recommendation GFCM/33/2009/7;
2. Propose concrete and technical improvements to current VMS as considered necessary in view of a centralised VMS, and in particular rules to ensure efficient VMS data;

The WGVMS should:

1. Prepare the terms of reference of two pilot projects aimed at testing the feasibility of the establishment of a centralised/regionalised VMS system in the GFCM area of application, on the basis of existing VMS schemes deployed in other RFMOs;
 - The first pilot project should, in particular, be based on the experience and results of the VMS currently deployed at the North East Atlantic Fisheries Commission (NEAFC).
 - The second pilot project should, in particular, be based on the experience and results of the VMS currently deployed at the International Commission for the Conservation of Atlantic Tunas (ICCAT).
2. Define limited zones/areas of the GFCM area of application and targeted fleet or fleets to which the pilot projects should apply. Each CPC should identify the vessels belonging to these fleets that will participate in the pilot projects.
3. Establish clear technical options (centralised or regionalised VMS) and a roadmap for the operationalization of a the most suitable VMS for the GFCM as well as related measures;
4. Analyse and present the costs and benefits of the various options, based on the experience of other RFMOs, for the pilot projects, taking into account the specificities of the GFCM area of application and of the fleets, including small-scale fisheries;
5. Define rules and procedures for the operationalization of a VMS in the GFCM of application, having regard to the safety of information storage, the confidentiality and the integrity of data;
6. Clearly define the roles and responsibilities/duties for VMS reporting (by operators, flag states and the GFCM Secretariat);
7. Establish minimum standards and requirements, including to ensure that VMS is operational at all times as well as for data reporting, rates of transmission, rules on data sharing. Such standards should in particular:
 - Ensure that the GFCM Secretariat receives in real time the position of vessels in the GFCM area of application;
 - Ensure that the data received from the fishing vessels of CPCs to which VMS applies are recorded in computer-readable form;

- Ensure that data are automatically transmitted to the fisheries monitoring centre of the flag/port/coastal/inspection contracting party.
8. Ensure compatibility with international standards and data confidentiality requirements for the exchange of VMS information between CPCs and ensure consistency with the exiting regulations on VMS of CPCs.

Terms of reference of the WGVMS for the implementation of ERS

The recommendations drafted by the WGVMS should, *inter alia*:

1. Provide a technical definition and specifications for ERS in the GFCM area of application on the basis of an analysis of the state of play of ERS implementation in CPCs and RFMOs;
2. Ensure full compatibility of the technical specifications with international standards and data confidentiality requirements, in line with existing regulations of CPCs;
3. Establish minimum standards and procedures concerning, *inter alia*, the functioning and maintenance of ERS, catch reporting data, landing and transshipment declarations and various phases of fishing activities,
4. Identify which fisheries/fleets in the GFCM area of application would best benefit from pilot activities/testing;
5. Define a clear roadmap and calendar for the deployment of the pilot project based on the above provisions;
6. Provide a cost analysis.

Resolution GFCM/43/2019/4
on the ban of single-use plastics in all GFCM meetings

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

CONSIDERING that, as a semi-closed basin, the Mediterranean Sea is particularly sensitive to marine pollution, including pollution due to the discharge of plastic litter in the marine environment, and that making every effort in preserving the marine environment would help fulfilling the objectives of the GFCM Agreement;

RECALLING ongoing international efforts in fighting marine litter and plastic pollution;

AWARE of its responsibility both in advocating for the preservation of the marine environment and in leading by example;

ADOPTS, in conformity with Articles 5 and 8 of the GFCM Agreement, the following resolution:

Sole paragraph

The GFCM resolves to discontinue, as of 2020, the use of single-use plastics in all the meetings it holds, including those of its subsidiary bodies, and encourages the contracting parties and cooperating non-contracting parties to the GFCM Agreement and its partners to implement the same policy.

Resolution GFCM/43/2019/5
on a compliance assessment scheme for the implementation of Recommendation
GFCM/38/2014/2 concerning the identification of non-compliance

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING the terms of reference of the Compliance Committee (CoC) provided in Annex 1 of the GFCM Rules of procedure;

RECALLING Recommendation GFCM/38/2014/2 concerning the identification of non-compliance, amending and repealing Recommendation GFCM/34/2010/3;

RECOGNIZING that compliance with GFCM conservation and management measures is critical to the success of the GFCM;

RECALLING that the CoC may provide information in addition to its activities to address issues of non-compliance or lack of cooperation with GFCM conservation and management measures, in accordance with the GFCM rules of procedure;

RECALLING that the CoC can undertake other functions or responsibilities as may be conferred by the GFCM, in accordance with the GFCM rules of procedure;

RECOGNIZING that a reinforced analysis of non-compliance cases should be established in order to reinforce the assessment of the CoC, in respect of GFCM conservation and management measures, reporting obligations and control measures;

RECOGNIZING that cases of non-compliance should be addressed in a concrete, transparent and non-discriminatory manner, in accordance with the principle of proportionality and taking into account the need to remain flexible in dealing with the individual situations of each contracting party and cooperating non-contracting party (CPC);

FURTHER RECOGNIZING that not all non-compliance cases are of the same level of severity and impact on the effectiveness of GFCM conservation and management measures or on the work of the GFCM;

COGNIZANT of the need to assist in providing a consistent, fair, and transparent approach for considering and applying appropriate actions and proportionate response to improve compliance with and enforcement of the GFCM decisions;

ADOPTS, in conformity with Articles 5 and 8 of the GFCM Agreement, the following resolution:

PART I
Objective

1. The purpose of the present resolution is to adopt implementing rules for the process of identification of cases of non-compliance and the appropriate measures to deter non-compliance by CPCs as referred to in paragraphs 1 and 5 b) of Recommendation GFCM/38/2014/2 concerning the identification of non-compliance, amending and repealing Recommendation GFCM/34/2010/3.

PART II

Establishment of the compliance assessment scheme

2. In preparation of the session of the CoC, the GFCM Secretariat should produce a compliance assessment scheme for each CPC concerned. The compliance assessment scheme should include, for each individual case of non-compliance, a categorization and evaluation of severity, based on the criteria set in Annex 1:

- a) The criteria listed under item 1 of Annex 1 should be used to determine the category of non-compliance with GFCM decisions; and
- b) The level of severity of each individual case of non-compliance by CPCs should be assessed in accordance with the definitions provided under item 2 of Annex 1, taking into account mitigating or aggravating considerations.

3. The compliance assessment scheme should be distributed to CPCs for discussion during the CoC session. The compliance assessment scheme could be updated up to one week prior to the session.

4. The compliance assessment scheme should be integrated in the process of identification of cases of non-compliance referred to in paragraph 1 of Recommendation GFCM/38/2014/2. The CoC should review the compliance with GFCM decisions by each CPC on the basis of the compliance assessment scheme.

PART III

Appropriate measures to deter non-compliance

5. Highest priority should be given to determining and addressing significant non-compliance, although responsive action may also be warranted in other cases.

6. Cases of non-compliance should be examined in consideration of the applicability of GFCM decisions to relevant CPCs.

7. In 2020, the CoC should propose appropriate measures with regard to the categories and gravity of non-compliance (among those listed in Annex 1 of this resolution) and submit proposals to the GFCM in 2020. On the basis of CoC advice, the forty-fourth session of the GFCM may adopt a list of appropriate measures.

Criteria for the establishment of compliance assessment schemes

1. Determination of the category of non-compliance(s)

Category A: Conservation and/or management measures, including, *inter alia*:

- Failure to respect effort/catches/landings limits;
- Failure to restrict fleet size or other capacity measures;
- Failure to implement spatio-temporal closures;
- Failure to implement minimum conservation reference size restrictions; and
- Failure to implement gear restrictions.

Category B: Reporting requirements, including, *inter alia*:

- Failure to report or delay in reporting data and other required data; and
- Failure to submit or delay in submitting reports.

Category C: Monitoring, control and surveillance (MCS) measures, including, *inter alia*:

- Failure to exercise port state control, including port inspection requirements;
- Failure to exercise flag state control; and
- Failure to implement MCS measures, including, *inter alia*, catch documents /statistical document programmes (transshipment control), and vessel monitoring system (VMS) requirements.

2. Determination of the level of severity of non-compliance types

Minor non-compliance

Failures are first time or infrequent and do not significantly impact the work of the CoC or diminish the effectiveness of GFCM conservation and management decisions.

Significant non-compliance

Non-compliance issues reflect a systematic disregard by the relevant CPCs of GFCM measures or infrequent (and even first time) violations that individually or collectively have a significant impact on the objectives of the GFCM or its subsidiary bodies or diminish the effectiveness of GFCM conservation and management measures. These non-compliance issues could include frequent non-reporting or insufficient reporting that impact on CoC ability to effectively evaluate the compliance of a CPC.

Mitigating and aggravating considerations

Both mitigating and aggravating considerations, as indicated below, should be taken into account when determining the significance of non-compliance:

- Mitigating considerations may include, *inter alia*: 1) the extent to which available capacity-building and assistance programmes have been used by a CPC to improve its ability to meet its GFCM obligations; and 2) any action taken by a CPC to address its non-compliance or by a third party CPC in response to the non-compliance of another CPC's vessel.

Aggravating considerations may include, *inter alia*: 1) non-compliance that is repeated, frequent, numerous, and/or severe in degree, scope, and/or effect, individually or cumulatively; and 2) lack of effective corrective action by the flag CPC or by the third party CPC, if appropriate.

Resolution GFCM/43/2019/6
on the establishment of a set of measures to protect vulnerable marine ecosystems
formed by cnidarian (coral) communities in the Mediterranean Sea

The General Fisheries Commission for the Mediterranean (GFCM),

CONSIDERING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

RECALLING the GFCM Agreement, which foresees the application of the precautionary approach in accordance with the 1995 Agreement and the Code of Conduct for Responsible Fisheries of the Food and Agriculture Organization of the United Nations (FAO);

RECALLING the responsibility of the GFCM, as regional fisheries management organization, to contribute to the objectives of the United Nations General Assembly (UNGA) Resolutions 59/25, 61/105 and 64/72 on the protection of vulnerable marine ecosystems and to ensure management measures are established consistent with the precautionary approach;

CONSIDERING that the FAO Code of Conduct for Responsible Fisheries provides that states “should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment”;

RECALLING the mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries, namely its Target 4 “Minimize and mitigate unwanted interactions between fisheries and marine ecosystems and environment” and in particular the implementation of actions related to Output 4.2 “Healthier marine ecosystems and more productive fisheries”;

RECALLING that the 2017 Malta MedFish4Ever Ministerial Declaration requires, in the context of establishing an ecosystem-based fisheries management framework, to ensure adequate protection of vulnerable species and sensitive habitats;

CONSIDERING the memorandum of understanding between the GFCM and the United Nations Environment Programme – Mediterranean Action Plan (UNEP-MAP) which aims for a closer strategic and operational cooperation among regional sea conventions, including mitigation of impacts from fisheries on marine habitats and species;

CONSIDERING that Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention resolved, at the 2017 Conference of the Parties, that new cnidarian species should be included in Annex II (list of endangered or threatened species) of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol);

CONSIDERING the advice expressed by the Scientific Advisory Committee on Fisheries (SAC) at its twenty-first session on the need to adopt binding decisions on mapping the fishing footprint of deep-sea fisheries according to existing agreed protocols;

CONSIDERING that demersal fisheries, in particular towed gear, present an important threat to the conservation of threatened cnidarian species;

ADOPTS, in conformity with Articles 5 and 8 of the GFCM Agreement, the following resolution:

1. Contracting parties and cooperating non-contracting parties (CPCs) should encourage, within the zones identified by the SAC, the progressive implementation of a set of transitional measures to prevent significant adverse impacts (SAIs) of deep-sea fisheries (DSF) activities on vulnerable marine ecosystems (VMEs) formed by cnidarian (coral) communities protected under Annex II of the SPA/BD Protocol of the Barcelona Convention, which are known to occur in the Mediterranean Sea (geographical subareas [GSAs] 1–28).
2. These measures should be consistent with the precautionary approach and ensure, pending formal scientific advice by the SAC and the adoption of permanent measures, a low risk of SAIs on VME indicator species listed in Annex 2 of this resolution.
3. These measures should be in line with the protocols for the protection of VMEs in the GFCM area of application endorsed by the forty-second session of the GFCM and reported in Appendix 17 of its report.
4. CPCs whose vessels are actively fishing in GSAs 1–28 should agree upon a progressive calendar to implement such transitional measures for the fisheries concerned, in accordance with the general and specific objectives and measures set by this resolution and provided in Annex 1.
5. With a view to protecting VME indicator taxa from SAIs, the SAC is invited to provide, in 2021, advice on the status of the VME indicator species included in Annex 2 of this resolution, based on the information received from CPCs following the adoption of the protocols mentioned in paragraph 3 and on additional pilot research projects as suggested in Annex 1, paragraphs 12 and 13, of this resolution as well as any other source of information.
6. This resolution is without prejudice to the implementation of stricter national measures.

General and specific objectives and transitional set of measures

1. The present resolution should apply to the Mediterranean Sea (GSAs 1–28).
2. The management measures should consider the following categories of fishing vessels, in line with the protocols for the protection of VMEs in the GFCM area of application endorsed by the GFCM at its forty-second session:
 - a) all fishing vessels above 15 metres (length overall [LOA]) operating with bottom contact fishing gear and fishing for *Aristaeomorpha foliacea*, *Aristeus antennatus*, or *Plesionika martia*; and
 - b) all fishing vessels above 15 metres (LOA) operating with bottom contact gear (bottom trawls, longlines, gillnets and pots and traps) deeper than 300 metres and on all offshore seamounts.
3. For the purpose of this resolution:
 - “Vulnerable marine ecosystems” (VMEs) refers to paragraphs 42 and 43 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas;
 - “VME indicator taxa” refers to the species or group of species used as signal of VME occurrence. The list of Mediterranean VME indicator taxa is defined in Annex 1 of Appendix 17 of report of the forty-second session of the GFCM;
 - “VME protocol” refers to the protocols for the protection of VMEs in the GFCM area of application as endorsed by the GFCM at its forty-second session (Appendix 17);
 - The fisheries described above in 2 a) and 2 b) should be referred to as “deep-sea fisheries” (DSF), until possible revision of the current VME protocol according to SAC advice;
 - “Significant adverse impacts” (SAI) are those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types;
 - “Encounter” refers to an encounter with VME indicator taxa and is defined as any catch of VME indicator taxa by any DSF, until possible revision of the current VME protocol, which may establish threshold levels in line SAC advice, based on data and information gathered upon the implementation of the protocols and measures established in this resolution;
 - “Fisheries restricted area” (FRA) refers to the spatial protection measures in the GFCM area of application, and
 - “Key species” or “indicator species” mean marine organisms pertaining to the species defined in Annex 2 of this resolution.
4. The operational objective shall be to ensure the progressive implementation of transitional measures to prevent SAIs from DSF activities on VME formed by cnidarian (coral) communities which are known to occur in the GFCM area of application (GSAs 1–28) as listed in Annex 2 of this resolution.
5. The ultimate objective of the transitional measures for VME indicator species occurring in the Mediterranean Sea is to prepare for future management measures while reducing the risk that, in the absence of relevant scientific advice, SAIs on VMEs occur due to DSF activities.

6. DSF vessels, as described in paragraph 2a) and b), flying the flag of a CPC should be restricted from operating where a VME has been identified, according to an assessment based on the criteria provided in the FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas.
7. The SAC Working Group on VME/MPA should, in 2021: i) collate and analyse all available data sources, ii) identify where VME indicator taxa are known to occur or are likely to occur, iii) reflect on additional measures (including threshold levels, move-on rules, level of scientific observer coverage) for the protection of the VME indicator species included in Annex 2 of this resolution, and iv) provide inputs to the SAC.
8. The twenty-third session of the SAC should assess the status of VME indicator species listed in Annex 2 and propose to the GFCM elements for setting management and control measures.
9. At its forty-fifth session, the GFCM should adopt long-term management measures allowing for the achievement of the objectives set out in this resolution.
10. As from 2021, the SAC should assess, on an annual basis, the biological, economic and social implications of implementing several management scenarios (including FRAs), with the objective of maintaining VME indicator species populations of Annex 2 above critical levels.
11. Where SAC advice indicates that the general or specific objectives are not being met, the GFCM should decide on additional and/or alternative management measures to contribute to achieving those objectives.
12. For the purpose of providing advice, CPCs and the SAC should facilitate the collation of existing relevant data and the collection of additional relevant data (including research survey data) and organize adequate workshops. For this purpose, the SAC should promote scientific cooperation and a harmonised approach amongst all Mediterranean Sea riparian countries.
13. CPCs may establish, on a voluntary basis, pilot research projects in selected areas targeting VME indicator taxa. The research projects may include, *inter alia*, observer coverage to ensure the collection of relevant, timely and accurate data, following a standardised protocol on the presence, distribution, catch and bycatch of VME indicator taxa and on encounters with VMEs, and of any other relevant information for the effective implementation of this resolution.
14. The GFCM Secretariat should assist CPCs in establishing pilot research projects and should provide technical guidelines (“protocols”) for standardised data collection requirements.
15. CPCs should transmit information and data collected from the pilot projects to the GFCM Secretariat and the GFCM geodatabase.
16. VME indicator taxa taken as a bycatch during fishing activities targeting other species should be reported to the competent national authorities, in order to contribute to a better knowledge of VME indicator taxa occurrence.
17. In order to ensure a collection of representative data that is adequate for the conservation of VMEs indicator species, CPCs having vessels carrying out DSF activities should endeavour to establish an adequate level of scientific observer programme coverage, in particular if during an exploratory DSF stage.
18. CPCs may designate additional spatial/temporal restrictions to those already established, where fishing activities may be banned or restricted in order to protect VME indicator taxa, including the species listed in Annex 2. Where applicable, CPCs should notify to the GFCM Secretariat, by the end of each year, the list of these areas and of the restrictions applied.

19. CPCs should establish a mechanism to ensure that DSF vessels actively fishing in the Mediterranean Sea record VME Indicator Taxa catch and bycatch following the protocols for the protection of VMEs in the GFCM area of application endorsed by the forty-second session of the GFCM.
20. CPCs should carry out inspections on the basis of a risk analysis.
21. CPCs should engage in cooperation for the fight against illegal, unreported and unregulated (IUU) fishing, in particular by sharing information and gathering intelligence to fight against illegal activities.
22. This resolution is without prejudice to Recommendation GFCM/41/2017/7 on a regional plan of action to combat illegal, unreported and unregulated fishing in the GFCM area of application.
23. A working group should be established to develop integrated monitoring, control and surveillance (MCS) measures, in accordance with this resolution. The tasks of the working group are defined in Annex 3 of this resolution.

Key species or indicator species: cnidarian species listed in Annex II of the SPA/BD Protocol of the Barcelona Convention and impacted by fisheries

1. *Antipathella subpinnata* (Ellis & Solander, 1786)
2. *Antipathes dichotoma* (Pallas, 1766)
3. *Antipathes fragilis* (Gravier, 1918)
4. *Callogorgia verticillata* (Pallas, 1766)
5. *Dendrophyllia cornigera* (Lamarck, 1816)
6. *Dendrophyllia ramea* (Linnaeus, 1758)
7. *Desmophyllum dianthus* (Esper, 1794)
8. *Ellisella paraplexauroides* (Stiasny, 1936)
9. *Errina aspera* (Linnaeus, 1767)
10. *Isidella elongata* (Esper, 1788)
11. *Leiopathes glaberrima* (Esper, 1792)
12. *Lophelia pertusa* (Linnaeus, 1758)
13. *Madrepora oculata* (Linnaeus, 1758)
14. *Parantipathes larix* (Esper, 1790)
15. *Savalia savaglia* Nardo, 1844 (synon. *Gerardiasavaglia*)

Terms of reference for the Working Group on integrated MCS measures for fisheries having impact on key species in the Mediterranean Sea

The Working Group referred to in paragraph 23 of Annex 1, should:

- 1) be supported by the GFCM Secretariat;
- 2) establish a schedule for the development of its work and hold at least one meeting in 2020, before the next meeting of the Compliance Committee (CoC);
- 3) invite observers attending GFCM meetings, the FAO, and other regional fisheries organizations to participate in its meetings; and
- 4) report on its conclusions and opinions to the CoC.

The mandate of the Working Group covers the elements described in Annex 1 of this resolution.

Resolution GFCM/43/2019/7
amending Resolution GFCM/41/2017/3 on the reactivation of the Working Group on
Fishing Technology

The General Fisheries Commission for the Mediterranean (GFCM),

RECALLING that the objective of the Agreement for the establishment of the General Fisheries Commission for the Mediterranean (GFCM Agreement) is to ensure the conservation and sustainable use, at the biological, social, economic and environmental level, of marine living resources in the GFCM area of application;

CONSIDERING that, in the Mediterranean and the Black Sea, there remains a high level of catch of juvenile fish and bycatch of unwanted fish species, as well as incidental catch of vulnerable and sensitive marine species such as marine mammals, seabirds and marine reptiles;

FURTHER CONSIDERING that appropriate mitigation measures should be adopted so to minimise and, where possible, eliminate catch of such species by fishing gear and not to threaten their conservation status;

ACKNOWLEDGING that increasing the selectivity of fishing gear would help mitigate this adverse impact and help achieve the objectives of the GFCM Agreement;

RECALLING Resolution GFCM/41/2017/3 on the reactivation of the Working Group on Fishing Technology;

ADOPTS, in conformity with the Articles 5 and 8 of the GFCM Agreement, the following resolution:

1. The Working Group on Fishing Technology (WGFiT) should hold a meeting in 2020.
2. The 2020 meeting of the WGFiT should establish a draft work programme spanning over three to five years and submit it to the Scientific Advisory Committee on Fisheries (SAC) for adoption.
3. The terms of reference for such meeting are provided in Annex 1 of this resolution.
4. On the basis of the report prepared by 2020 meeting of WGFiT, the twenty-second session of the SAC should adopt the work programme prepared by the WGFiT and advise the GFCM on suitable selectivity measures that may be implemented as soon as possible, and preferably by 2021, for selected fisheries and gear, while taking into account relevant socio-economic considerations.
5. The forty-fourth session of the GFCM should review the measures advised by the SAC and consider adopting suitable selectivity and mitigation measures to minimise and, where possible, eliminate the catch of juvenile fish and bycatch of unwanted fish species, as well as incidental catch of vulnerable and sensitive marine species such as marine mammals, seabirds and marine reptiles.
6. The GFCM should designate a coordinator for the WGFiT and for the 2020 WGFiT meeting. The tasks of the coordinator of the 2020 WGFiT meeting are listed in Annex 2.

Terms of reference for the 2020 WGFiT meeting

1. The objective of the 2020 WGFiT meeting is to advise the SAC on concrete and directly implementable selectivity measures that would allow mitigating the adverse effects of fisheries on:
 - juvenile fish;
 - bycatch of unwanted fish species; and
 - incidental catch of vulnerable and sensitive species, such as seabirds, cetaceans and marine reptiles.
2. The WGFiT should base its advice on the results of past and ongoing selectivity studies undertaken by GFCM contracting parties and cooperating non-contracting parties and on any other scientific information pertinent to the Mediterranean and the Black Sea.
3. The outcomes of the WGFiT should aim at maximizing the impact of the proposed measures focusing on:
 - the priority species listed in the GFCM mid-term strategy (2017–2020), in particular those with poorest conservation status according to the latest SAC advice;
 - fishing gear responsible for most catches in the Mediterranean and the Black Sea;
 - fishing gear having most impact on juvenile fish and bycatch of unwanted fish species, as well as on the incidental catch of vulnerable and sensitive marine species such as marine mammals, seabirds and marine reptiles;
 - fishing gear for which scientific knowledge is mature enough to rapidly translate into selectivity devices fitted to the fishing gear, including acoustic deterrent devices and other technical means to prevent the incidental catch of vulnerable and sensitive marine species such as marine mammals, seabirds and marine reptiles.

Terms of reference for the WGFiT coordinator in 2020

1. Draft the agenda of the 2020 WGFiT meeting, on the basis of the terms of reference included in Annex 1 of the present resolution;
2. Identify relevant experts and ongoing projects in the region and secure their participation in the meeting, as well as their relevant contribution (presentations);
3. Prepare relevant meeting documents, including background documents;
4. Chair the 2020 meeting of the WGFiT; and
5. Coordinate the elaboration and presentation of meeting conclusions, including the preparation of relevant recommendations for the consideration of the SAC (in line with the terms of reference of the 2020 WGFiT meeting).

Updated technical elements for the management of fisheries for blackspot seabream (*Pagellus bogaraveo*) in the Strait of Gibraltar

Technical elements for the management of fisheries for blackspot seabream (*Pagellus bogaraveo*) in the Strait of Gibraltar (endorsed at the twentieth session of the SAC, 2018)

1. Scope of the management plan

The management plan should address all fisheries targeting *Pagellus bogaraveo*, in GSA 01–03 including recreational fisheries. Adaptive management measures addressing the management unit of the Strait of Gibraltar (see figure) shall be based on a quantitative advice for this unit, to be provided by SAC by 2019, while precautionary measures in line with Recommendation GFCM/41/2017/2 shall be applied in the rest of the area mentioned in this scope.

2. Objectives

Improving the exploitation pattern of blackspot seabream fisheries

Operational objectives

To maintain fishing mortality for blackspot seabream within precautionary reference points and to achieve as soon as possible or maintain the maximum sustainable yield.

In order to do that, F_{MSY} , Bpa and BLim should be established by 2019

3. Fisheries management measures

Recommendation GFCM/41/2017/2 request concerned CPCs to maintain the fishing fleet capacity or fishing effort at levels authorized and applied in recent years for the exploitation of blackspot seabream in the Alboran Sea.

In this respect, fishing capacity for longliners (including Spanish and Moroccan voraceras) as well as small scale vessels using mainly longlines and handlines, should be understood as the combination of a **unit of activity** (fishing days) and a **unit of capacity** (number of hooks).

The management plan could also consider the need to assess and minimize any potential impact of existing fishing gears on the seabed, including through the possibility of testing alternative gears/materials.

In addition to the above, the following management measures, including those proposed within Recommendation GFCM/41/2017/2 as well as additional potential management measures, could be considered, taking into account the comments provided by Morocco and Spain.

| Management measures | Comments | Morocco | Spain |
|-----------------------|--|---|--|
| Spatial restrictions | Rec. GFCM/41/2017/2 request countries to consider this type of measures and inform on spatial closures | No available information on exact areas to be protected | No available information on exact areas to be protected The fishing grounds within the Strait of Gibraltar are reduced, difficult to impose spatial restriction. Juveniles are outside the Strait of Gibraltar and it could be important to establish some protection. |
| Temporal restrictions | Rec. GFCM/41/2017/2 request countries to consider this type of measures and inform on temporal restrictions | Wait for results on biological cycles in the area | Previous temporal restriction (2 months February and March – coincides with the spawning period) not active from 2016. Future management plan could agree on common temporal closure |
| Gear restrictions | Rec. GFCM/41/2017/2 request passive fishing gear, including markers and intermediary buoys, shall permanently display the registration letters and numbers reported on the hull of the fishing vessel to which they belong | Fishing gears used are not considered passive gears by Morocco. | Already included in EU regulation. The gear is linked in the boat and is therefore not considered a passive gear, no extra mark used. |
| Minimum size | Minimum conservation reference sizes should be defined and harmonized in the sub-region, based on the best scientific knowledge about maturity. | Currently 25 cm Fork Length. Any revision pending future results of the biological sampling. | Currently 33 cm Total Length, coming from a STECF scientific assessment, related to sex change, applicable both in the Atlantic and Mediterranean waters. As there are studies on high survival rate, alive release of below size individuals should be considered as a possibility |

4. Decision rules

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

5. Scientific monitoring

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

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

Monitoring and reporting of the number of hooks used in a fishing operation will be desirable in order to have a precise estimate of effort.

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

The list of research priorities should be organized based on the measures proposed within the plan. As a first indication and based on the advice provided by the Working Groups on Stock assessment, potential research priorities could include:

- Continue the current monitoring on landings and length frequency distributions of landings;
- Start biological sampling in both countries (Morocco and Spain);
- Keep exploring analytical tools such as GADGET to assess the stock;
- Conduct a study on stock boundaries;
- Establish observers on board programmes for both the target fishery and the trawl fishery;
- Launch a survey to obtain a fishery-independent index;
- Standardize effort between countries;
- Collect relevant socio-economic data towards their future inclusion in a Management Strategy Evaluation framework;
- Collect data regarding recreational fisheries, and
- Understand interactions between the fishery and the environment.

7. Fisheries monitoring

Management plan should follow existing recommendations, in particular those included in Recommendation GFCM/41/2017/2 in relation to the register of fishing authorizations, and take into consideration relevant aspects included in adopted resolutions related to MCS.

8. Review of the management plan

The contents of the management plans should be periodically reviewed in order to accommodate changes in the fisheries. Comprehensive roadmaps will be provided by SAC for the assessment and management of the fishery.

Update on technical elements for the management of blackspot seabream in the Strait of Gibraltar (endorsed at the twenty-first session of the SAC, 2019)

This document is a compilation of relevant information for the management of blackspot seabream (*Pagellus bogaraveo*), complementing previous technical elements for the management of this fishery, as produced by the twentieth Session of the SAC. It includes i) the most recent advice on the status of the blackspot seabream (*Pagellus bogaraveo*) stock, as produced by the WGSAD; ii) baseline information used to determine the minimum conservation reference size as advice in relation to minimum landing size; iii) the number of authorized vessels for both Morocco and Spain; and iv) management measures in place, including trends data on effort and landings, per country and fleet, for different time series. This information emanates from the second and third meetings of the SRC-WM (Spain, March 2018 and France, April 2019, respectively) as well as the benchmark session on the assessment of blackspot seabream (*Pagellus bogaraveo*) in the Strait of Gibraltar (France, April 2019). It complements the elements for the management of blackspot seabream (*Pagellus bogaraveo*), endorsed by the twentieth session of the SAC (Morocco, June 2018).

TABLE 1. Status of the blackspot seabream (*Pagellus bogaraveo*) stock in the Strait of Gibraltar

| – | Model | – | Data series | – | B/BMY | – | F/FMSY |
|---|--------|---|--|---|-------------|---|-------------|
| – | BioDyn | – | Aggregated S+M catches 1983-2018 and Spain CPUE corrected with 0 catch (1995-2018) | – | 0.14 | – | - |
| – | BioDyn | – | Aggregated S+M catches 1983-2018 and Spain CPUE corrected with 0 catch (1983-2018) | – | 0.14 | – | - |
| – | SPICT | – | Aggregated S+M catches 1983-2018 and Spain CPUE all series corrected (VMS + corrected) | – | 0.22 | – | 1.81 |
| – | SPICT | – | Aggregated S+M catches 1983-2018 and Spain CPUE corrected only 2000 - 2008 (+VMS) | – | 0.18 | – | 1.99 |
| – | LCA | – | Aggregated S + M length frequency distributions (2016 - 2018) | – | - | – | 2.13 |
| – | | – | Average | – | 0.17 | – | 1.90 |

TABLE 2. Relevant information for the determination of minimum landing size

| | | | | | |
|---|--|-------|----|---------|-----|
| – | – | Spain | – | Morocco | |
| – | L50 males (cm) | – | 30 | – | 31 |
| – | L50 females (cm) | – | 35 | – | 32 |
| – | L50 change of sex (cm) | – | 35 | – | -- |
| – | Existing minimum landing size (TL in cm) | – | 33 | – | 28* |

* minimum landing size in Morocco is 25 cm fork length, which is estimated to be equivalent to 28 cm total length

TABLE 3a. Active fleet operating in the fishery (Morocco)

| Years Effort | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Fleet segment | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline | Polyvalent artisanal Polyvalent longline |
| Capacity (Number of hooks) | There is a maximum number of hooks used in each country (see Table 4) – to give better estimations of this parameter a sampling program is envisaged | | | | | | | | | | | | | | | | |
| Nominal effort (capacity x activity) | | | | | | | | | | | | | | | | | |
| Number of vessels | 115 | 125 | 103 | 113 | 102 | 127 | 129 | 115 | 141 | 178 | 168 | 174 | 165 | 168 | 170 | 160 | 163 |
| Polyvalent artisanal (<6 m) | 14 | 25 | 15 | 21 | 8 | 28 | 25 | 16 | 34 | 79 | 72 | 72 | 75 | 83 | 92 | 76 | 78 |
| Polyvalent longliners (>6m) | 101 | 100 | 88 | 92 | 94 | 99 | 104 | 99 | 107 | 99 | 96 | 102 | 90 | 85 | 78 | 84 | 85 |
| Landing ports | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq | Tangier (main port) Ksar Sghir Belyounec h Fnideq-M'diq |

TABLE 3b. Active fleet operating in the fishery (Spain)

| Years Effort | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|---|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Fleet segment (Strait of Gibraltar) | | | | | | | | | | | | | | | | | |
| Capacity (Number of hooks)* | There is a maximum number of hooks used in each country (see Table 5), currently 2400 per fishing day | | | | | | | | | | | | | | | | |
| | 2 800 | 2 800 | 2 800 | 2 600 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 | 2 400 |
| Nominal effort (capacity*time) | 10 939 600 | 9 875 600 | 13 048 000 | 15 145 000 | 14 548 800 | 13 202 400 | 18 328 800 | 20 402 400 | 21 475 200 | 17 200 800 | 14 272 800 | 8 844 000 | 5 983 200 | 9 290 400 | 8 853 600 | 6 600 000 | 4 231 200 |
| Number of active vessels (TOTAL) | 104 | 100 | 107 | 130 | 137 | 118 | 113 | 146 | 108 | 104 | 88 | 77 | 70 | 67 | 71 | 66 | 61 |
| Voracera handliner (6-12 m) ** | 104 | 100 | 107 | 112 | 120 | 111 | 102 | 135 | 98 | 94 | 79 | 68 | 62 | 61 | 63 | 58 | 54 |
| Longliner (6-12 m) | | | | 18 | 17 | 7 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 6 | 8 | 8 | 7 |
| Landing ports | Tarifa and Algeciras ("Voracera"-handliners), Conil (longliners) | | | | | | | | | | | | | | | | |

TABLE 4a. Total effort (number of days) in Spain and Morocco (2010 – 2018)

| Year | Spain | Morocco |
|------|-------|---------|
| 2010 | 7 029 | 2 786 |
| 2011 | 5 725 | 4 038 |
| 2012 | 3 845 | 3 858 |
| 2013 | 2 419 | 2 820 |
| 2014 | 3 702 | 3 593 |
| 2015 | 3 394 | 4 994 |
| 2016 | 2 411 | 4 614 |
| 2017 | 1 308 | 5 359 |
| 2018 | 429 | 2 596 |

TABLE 4b. Monthly effort (number of days) in Spain and Morocco (average of 2010 – 2018)

| Month | Spain | Morocco |
|-------|-------|---------|
| 1 | 239 | 250 |
| 2 | 27 | 174 |
| 3 | 71 | 220 |
| 4 | 351 | 289 |
| 5 | 462 | 380 |
| 6 | 529 | 413 |
| 7 | 465 | 357 |
| 8 | 390 | 379 |
| 9 | 197 | 408 |
| 10 | 186 | 331 |
| 11 | 211 | 277 |
| 12 | 236 | 374 |

TABLE 5. Existing management measures

| Measures | Country | Morocco | Spain |
|-------------------------------------|----------------|-------------------------|--|
| Spatial restrictions | | NO | NO |
| ○ Temporal restrictions | | NO | NO |
| ○ Catch restrictions | | NO | NOT in MED / EU TAC in ICES IX |
| ○ Effort restrictions | | NO | YES (5 days/vessel/week); 180 fishing days/vessel/year |
| ○ Gear restrictions | | NO | YES |
| Minimum size | | 25 cm (FL) | 33 cm (TL) |
| ○ Participatory restrictions | | NO | YES (close vessels census) |
| Limits to fishing capacity | | NO | YES |
| Vessel Monitoring System | | Yes (for longliners >6) | Yes (all vessels have “green boxes”) |
| Other | | | |

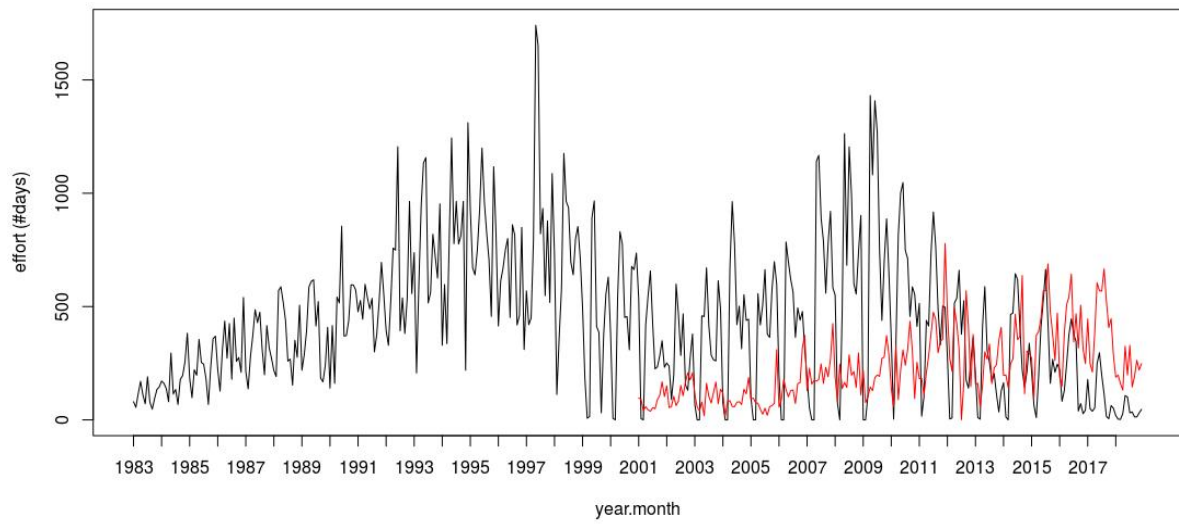


Figure 1. Time series (1983-2018) of effort (in number of days at sea) from Spain (black) and Morocco (red)

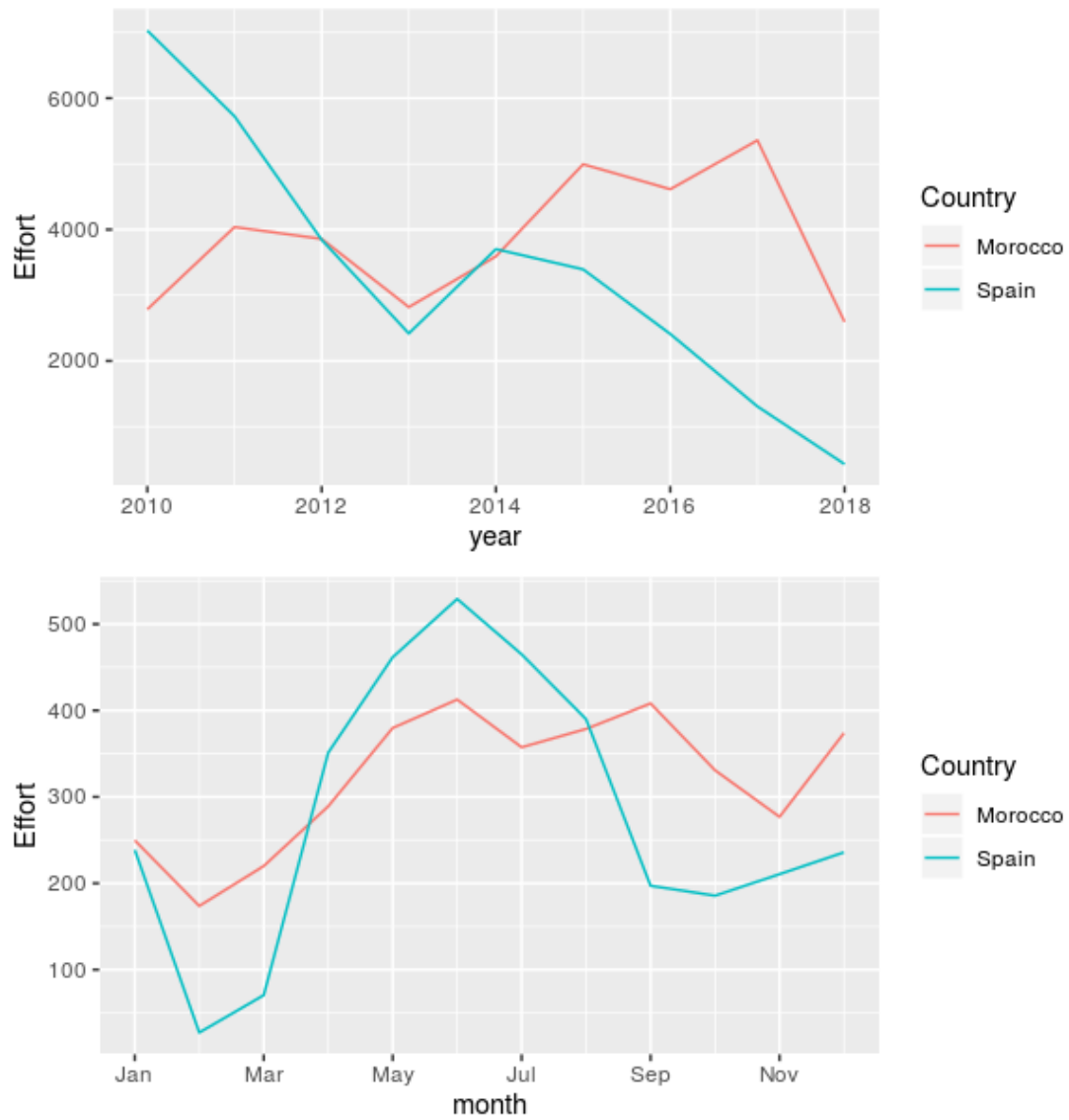


Figure 2. Effort by country from 2010 to 2018: total effort by year (top) average effort by month (bottom)

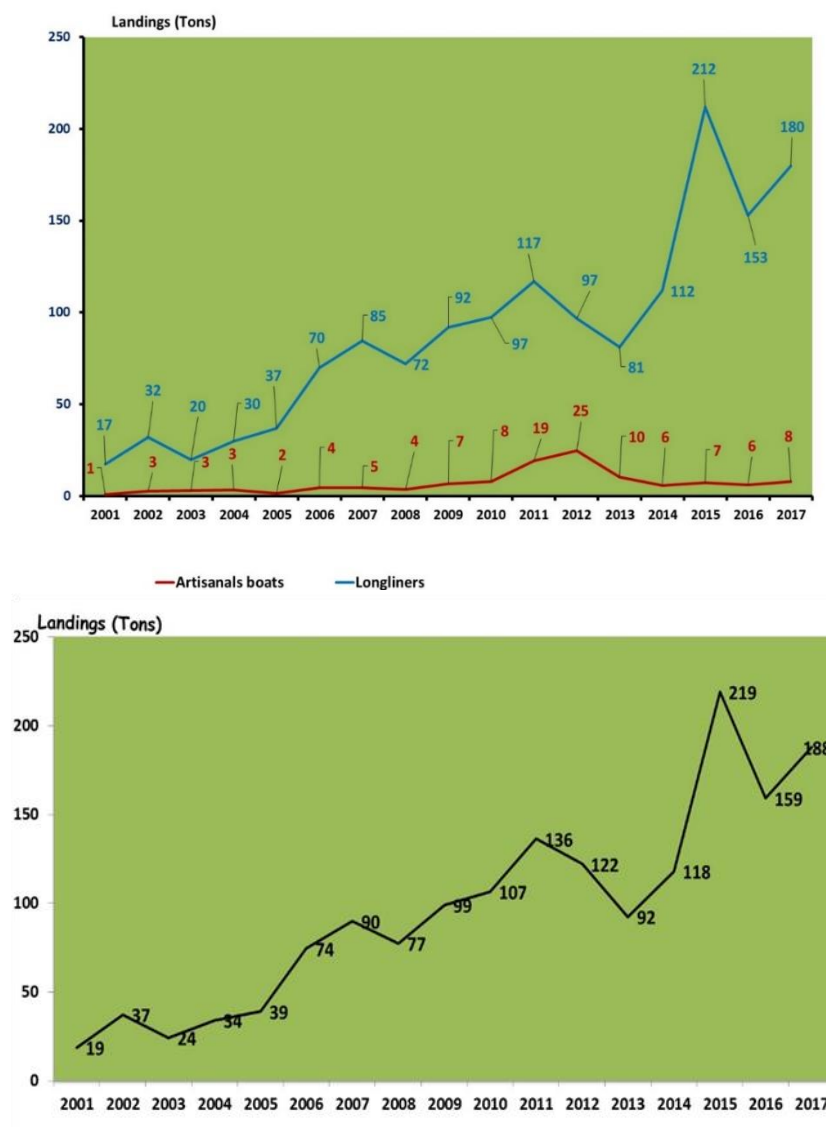


Figure 3a. Trends of landings (2001 – 2017) from the different fleets; Morocco

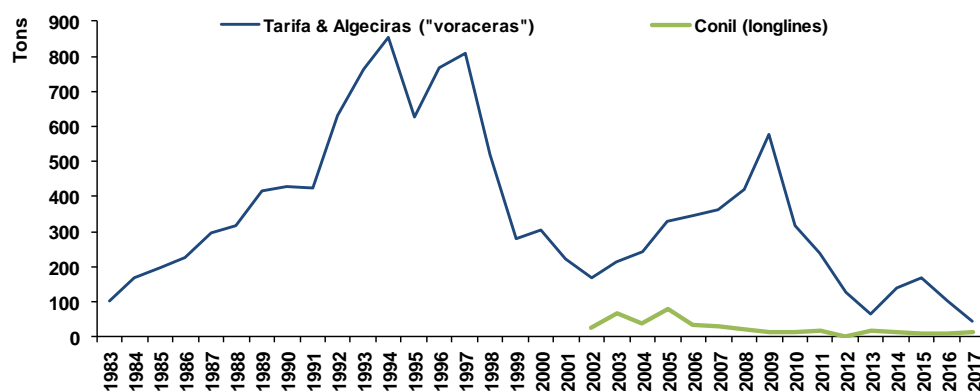


Figure 3b. Trends of landings (1983 – 2017) from the different fleets; Spain

Technical elements for the management of small-scale fisheries

The following elements were compiled to provide the SAC and WGBS with advice on possible measures for the management of small-scale fisheries (SSF), as well as advice on their expected effectiveness and/or benefit. This table was prepared in response to:

- The Terms of Reference of the WGSSF, adopted by the Commission at its forty-first session, which states: “The main objective of the Working Group is to coordinate technical, scientific and socio-economic activities relating to small-scale fisheries in order to fill the main data gaps relating to this sector, to produce advice for consideration and validation by the SAC and WGBS and to support the sustainable management and development of small-scale fisheries within a Blue Growth perspective” (Appendix 22 of the GFCM 41 report)
- The Regional Plan of Action for Small-Scale Fisheries in the Mediterranean and the Black Sea (RPOA-SSF), adopted on the occasion of the High-level conference on sustainable small-scale fisheries in the Mediterranean and the Black Sea (Malta, 25-26 September 2018), which calls on countries to implement SSF management measures that facilitate equitable access to living marine resources for small-scale fishers, integrate traditional and local ecological knowledge (LEK) and apply participative processes.

The WGSSF highlighted that measures to support the management of SSF should not be limited to fisheries restrictions, but rather should also include measures to maintain profitability while promoting the use of those fishing methods and activities that could be more environmentally friendly, as well as measures with the final aim to ensure the overall sustainability of the exploitation of resources, including by other fishing sectors. Furthermore, the WGSSF stressed that the process for implementing management measures should be transparent and participatory in order to ensure cooperation and the effective implementation of the measures. It was highlighted that participatory processes, including co-management, can effectively integrate LEK and can enhance compliance with measures through a shared sense of responsibility and improved understanding of management objectives.

A list of potential measures that could be applied in a management plan for SSF, including examples as well as comments on the expected effectiveness is included below.

A table of potential measures that could be applied in a management plan for SSF, including examples as well as comments on the expected effectiveness is included below. Discussion on this table was initiated during the second meeting of the WGSSF (6-7 March 2019, Podgorica, Montenegro) and WGSSF participants (which included both Mediterranean and Black Sea countries) were given an additional two months to submit comments following the WGSSF. The table was then discussed at the 21st session of the SAC (24-27 June 2019, Cairo, Egypt) and at the 8th meeting of the WGBS (16-20 September 2019, Trabzon, Turkey). Furthermore, the table was circulated to CPCs following the SAC meeting, providing additional time to submit comments. The table below compiles all comments received to date.

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|------------------------------|--|--|--|
| Participation measures | Participatory process in decision making / implementation of management measures | <p>Co-management committees</p> <ul style="list-style-type: none"> - Crystal goby fishery in Balearic Islands - Co-management decree in Catalonia - Co-management approach in Taza national park, Algeria - Co-management in Parc Naturel Marin du Golfe du Lyon, Parc Marin de la Côte Bleue and Parc Naturel Marin du cap Corse et de l'Agriate, France <p>Ecosystem Approach to Fisheries management</p> <ul style="list-style-type: none"> - Gökova Bay, Turkey | <p>A basic prerequisite for engaging the fishers in the management of MPA is that the MPA can assure an acceptable level of « control » of the territory. The main goal of involving the fishers is to jointly draft and adopt a specific management plan on SSF. MPA must have a specific strategy and actual tools for supporting (local) artisanal fishers if they accept to cooperate with the MPA, especially in relation with other competitive actors (industrial and recreational fishery, tourism, etc.).</p> |
| | Participatory process in advisory groups | <p>Consultation processes</p> | <p>The organization of awareness raising and information days for fishers on the necessity of putting in place management plans for SSF is important.</p> <p>Fishers should be involved in the scientific work</p> |
| | Register of fishing authorizations | <p>Specific SSF fishing authorization. Requisites may include:</p> <ul style="list-style-type: none"> - Vessel characteristics (length, GT, etc.) <ul style="list-style-type: none"> ▪ 4-12 metres (Algeria, Cyprus) ▪ Less than 12 m (EU, Italy, Montenegro, Turkey) ▪ GT < 3 tonnes (Morocco) ▪ Vessel specifications, motor type & power. Max number of crew. Allowed fishing area. Allowed fishing methods. (Egypt) - Ownership characteristics (i.e. Owner-operated) - Type of gear used - Obligation of reporting (landing in designated landing points, etc.) - Fishing zone - Length of fishing trip | |

⁵ Comments emanate from participants of the WGSSF, including from the experience of participating CPCs (both Mediterranean and Black Sea) and organizations. In particular, comments were received from Algeria, Tunisia, Turkey, FishMPABlue2, Low Impact Fishers of Europe [LIFE] and MedPAN.

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|------------------------------|-----------------------------|--|---|
| | | <ul style="list-style-type: none"> - Others? Criteria for allocation of authorizations may include: <ul style="list-style-type: none"> - Maintaining capacity - Traditional access rights - Others? | |
| Spatial measures | FRA to protect EFH | Establish closed areas Management of SSF activity within Marine Protected Areas (MPAs), designating no-take zones and buffer areas. | Measures should be effective, including through adequate MCS. Ideally no take zones could be considered. No-take zones need to be enforced in order to obtain ecological benefit and thus improving SSF activities around the no-take zone. |
| | FRA to protect VMEs | SSF may be too coastal to affect deep VMEs | Not relevant for SSF |
| | Depth/distance restrictions | Establishment of a depth limit/distance from the coast at which SSF operates/has preferential access <ul style="list-style-type: none"> - Council Regulation (EC) No 1967/2006 reserving part of the coastal zone for selective fishing gear used by SSF (para 18)Ex: Italy – SSF fish within 12 nm from coast - Ex: Malta – SSF (under 12 m) is main fishing segment allowed to fish within 25 nm of coast - Ex: Croatia – SSF license is tied to certain fishing areas *not related only to SSF | Measures should focus on providing preferential access to SSF for the coastal strip Very coastal activities that could affect e.g. some nurseries areas should be regulated e.g. beach seiner Reserved areas for the exclusive use of small-scale, low impact fishing activities, reduces gear conflicts between passive and active gear The adoption of depth/distance restrictions will require changes in the organization of fisheries management in Algeria, which could results in difficulties in application.. |
| | Precautionary closures | Marine protected areas (ex. Cap Lindles in Algeria) | |
| | Habitat protection | No-take zones, MPAs/spatial closures Prohibition of certain gears | Solid data on habitat mapping are often lacking and are needed to define effective area-based management strategies |

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|------------------------------|--|---|--|
| Temporal measures | Temporal closures | Temporal closures exist in most countries, but they may not be aligned. Common closed seasons/months (may be species specific) | Participants in MedPAN exchanges in 2018 stressed the need to designate permanent no-take zones that may be completed with other measures such as seasonal or temporary closures in adjacent zones within a buffer. Comments are based on MedPAN experience in select cases: <ul style="list-style-type: none"> - Temporal closures not effective in the National Marine Park of Zakynthos. - Nature Park Latsovo: this kind of regulation has no significant effects on revitalising resources. |
| | Authorized number of fishing days/times | | Torre Guaceto MPA set quotas for fishing licenses in order to reduce fishing effort. Each fisher was allowed to fish 1x per week and fishers were involved in monitoring activities with MPA staff. Early signs point to increased biomass for high-level predators in the MPA buffer zone. Total number of days allowed should take into consideration the socioeconomic implications as well as the available number of days to operate (e.g. taking into account weather conditions) |
| Effort measures | Fleet capacity | Restriction of number of licenses In view of the limited information about the SSF fleet/fishing effort in many GSAs, consider additional mechanisms that condition the development of fishing capacity to the acquisition of new knowledge. | Considering the SSF fleet is high in terms of number of boats but low in terms of fish production, restrictions on number of licences should consider the large scale fishery sector. |
| | Effort | Technological restrictions Fishing gear restrictions Quantity of gear deployed (number of pieces of net, number of hooks, number of taps, etc.) Regulation of simultaneity of gear deployed per day | Tunisia (DGPA) sets the number of fishing authorizations for each GSA with conservation objectives in mind. Optimal fishing effort has not yet been determined. |
| Catch restrictions | Daily and/or annual catch limitation/TAC | Catch limit enforced in management plan for turbot in the Black Sea (including reported SSF catches) and in the management plan for small pelagics in the Adriatic Sea (reduction of 5% per year in relation to catches in 2014) | The application of a TAC/Quota system across all fisheries in the Mediterranean, especially demersal fisheries, will not be appropriate, given their highly diverse and multi-specific nature and the polyvalent nature of small-scale fisheries. A TAC/quota based fishery management system would not be efficient, and would give rise to significant problems associated with discards. It could also be detrimental |

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|------------------------------|--|---|--|
| | | | <p>to small scale fishers, due to the tendency for quotas to be privatized through informal and unregulated markets leading to speculation and the accumulation and concentration of quota by a few larger companies.</p> <p>It should be noted that the quota limit is a measure that should come after the implementation of a management plan for equitable access to the resource.</p> |
| | Obligation to declare bycatch | | <p>Discards are low and very variable (depending on socio-economic factors). Main issue could be incidental catch of vulnerable species</p> <p>Measure should be applied to the extent possible, noting that there are always difficulties in identifying some species belonging to the same family.</p> |
| | Elimination of discards | | Discards are low and very variable (depending on socio-economic factors). Main issue could be incidental catch of vulnerable species |
| | Protection of vulnerable species | <p>Encounter protocols (e.g. release alive / avoid area)</p> <p>Mitigation measures</p> | <p>SSF can face economic loss from interactions with vulnerable species</p> <ul style="list-style-type: none"> - Turkey: SSF interactions with Mediterranean monk seal estimated to result in annual economic loss of \$600,000 for Muğla Province (Tunca et al.) - Some countries subsidize economic loss (i.e. loss of gear) <p>Need to assess interactions between SSF and marine mammals</p> |
| | Obligation to land all catches, including discards | EU landing obligation in place for some species | |
| Gear characteristics | Authorized gear types | <p>Selective passive gears</p> <p>Promote the use of artisanal/low-impact active gears</p> <p>Maximum dimension of fishing gear</p> | To reduce impact on species, MPAs have encouraged SSF to diversify gear. Example of project FishMPABlue2 which bought new gear for pilot MPAs, allowing to target new species, lowering fishing pressure on other species and raising profitability |
| | Prohibited gear types | Active gears / Passive gears with large impact | |

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|---|-------------------------------------|---|---|
| | Selectivity | <p>Improve the selectivity of the gear to reduce the capture of immature individuals and bycatch (e.g. through the implementation of Bycatch Reduction Devices).</p> <ul style="list-style-type: none"> - Number of nets/pots - Number and characteristics of traps - Mesh size - Number and size of hooks | |
| | Gear ID/markings | <p>For certain target species, marking of passive fishing gear is already requested</p> <ul style="list-style-type: none"> - Rec. GFCM/41/2017/2 on the management of blackspot seabream fisheries in the Alboran Sea requests passive fishing gear, including markers and intermediary buoys, to permanently display the registration letters and numbers reported on the hull of the fishing vessel to which they belong | The application of this measure may require financial support for some CPCs. |
| Minimum conservation reference size | Minimum conservation reference size | <p>Measures should be species specific: e.g.:</p> <ul style="list-style-type: none"> - European hake 20 cm TL - Deep water rose shrimp 20 mm CL - Turbot: 45 cm TL | Minimum conservation reference size is established for main commercial species in most CPCs, but harmonization may be required. |
| Data collection obligations | Vessel characteristics | <p>Already expected through DCRF: DCRF Task IV DCRF Task II DCRF Task V DCRF Task VI</p> <p>Need to specify that the data has to be collected as well for SSF</p> | <p>Importance of developing participatory data collection for accurate data</p> <p>Collection to be supported by pilot studies? Human/budget support?</p> |
| | Catch | | |
| | Effort | | |
| | Socio-economics | | |
| Monitoring, control and surveillance | VMS (or other) | <p>Not generally applicable for SSF, but alternative technologies available (AIS, mobile applications, etc.)</p> <p>Application in progress in Algeria</p> | |
| | Authorized ports/landing points | <p>List of authorized landing sites Dedicated landing sites/facilities for SSF:</p> <ul style="list-style-type: none"> - Morocco: structured landing points - Landing points are set in Algeria | |
| | Logbooks | | This measure is effective for evaluating the quantities of catch, |

| Types of management measures | Measures | Examples ⁵ | Comments on effectiveness of the management measure |
|------------------------------|-------------------------------|---|--|
| | | | however its introduction requires a great effort of awareness raising because many fishers refuse to declare their revenue in a general way. |
| | Transshipment prohibition | n/a (out of scope) | |
| | National inspection plan | | Importance of participatory monitoring, inspection plans are missing in some CPCs |
| | International inspection plan | | Could be n/a when SSF is very coastal |
| Other | Scientific research | Measures to facilitate the reproduction of certain species | <p>“Project Sepia” collected eggs of cephalopods that are attached to nets and traps, incubated them and released them in the appropriate moment to increase the probability of hatching (www.projectesepia.com)</p> <p>Facilitate scientists going onboard fishing vessels for better collaboration.</p> <p>Facilitate the exploration of new fishing areas.</p> |
| | Commercialization measures | Measures to complement and give visibility to SSF initiatives to increase the price of catches, potentially also making feasible a reduction in fishing effort. | |

Updated concept note for a research programme on European eel: towards coordination of European eel stock management and recovery in the Mediterranean

1. PREPARATION OF THIS DOCUMENT

On the basis of the request of Recommendation GFCM/42/2018/1 on a multiannual management plan for European eel in the Mediterranean and the discussion held at the Working Group on the management of European eel (WGMEASURES – EEL; FAO headquarters, Rome, Italy, 16–17 April 2019), this Concept note includes the main elements of a proposal for a research programme on European eel, expected to be carried out as a concerted action between partners (including research institutes or universities and relevant administrations of interested countries).

The present Concept note has been drafted in line with other recent research programmes (e.g. the research programme of red coral mentioned in Recommendation GFCM/42/2018/1), and is based on the outputs of WKMEASURES-EEL 2019 (see Appendix 1 of this concept note), including the outcome of consultations with administrations and national experts. This was integrated with a comprehensive review of recent (2010–2019) scientific papers published on different scientific issues concerning eel in the southern geographic range (the Mediterranean Sea), to assess existing relevant information, progress and gaps in knowledge, and needs for further insights that might be relevant for assessing the situation of the Mediterranean eel stock. It is intended to take into account the work carried out by all relevant scientific bodies working on European eel.

The draft was compiled by the GFCM Secretariat, with the assistance of a selection of European eel experts in the Mediterranean region.

2. BACKGROUND

European eel (*Anguilla anguilla*, L. 1758) is a temperate catadromous species with a wide distribution range, including coastal, transitional and inland waters of Countries in Europe and in the Mediterranean Region. The species is migratory and displays a unique life cycle, that assumes that spawning takes place in the Sargasso Sea (N-W Atlantic) and that oceanic larvae (*leptocephali*) are transported by currents across the Atlantic Ocean to the coasts of the distribution range, where they metamorphose into glass eels that recruit to continental waters. Here they remain during their growing phase (yellow eel) until they attain a pre-reproductive stage (silver eels) after several years. European eel is a panmictic species (Dannewitz et al., 2005; Palm et al. 2009; Pujolar et al., 200; Als et al. 2011), displaying an extreme plasticity in phenotypic traits as well as a marked physiological and ecological endurance. This, and the consequent adaptability to extremely different habitats (Vollestad, 1992), relies upon a common genetic pattern (van Ginneken & Maes 2005;). Recent studies have suggested that a recently-found genetic polymorphism in eel populations could be correlated with environmental gradients (Pujolar et al., 2014), possibly due to spatially varying selection and/or genetically based habitat selection producing genetically distinct ecotypes (Drouineau et al., 2018).

A concern for the eel global stock arose from the observation of a prolonged decline of recruitment and reductions of adult eel yields across the entire distribution area (Moriarty & Dekker, 1997; ICES, 2001, 2002, 2004, 2006), the severity of this decline being formally recognized since 1998 (ICES, 1999; Dekker, 2003; Bilotta et al., 2011). ICES (2017a, b) estimated that glass eel recruitment dropped to less than 10% of the 1960 – 1979 average, intermittently dropping to less than 1% in the North Sea (ICES, 2007).

The overall eel decline has been interpreted as the result of the combined effect of a number of natural causes and anthropogenic pressures impacting eel and its habitats. Such impacts are attributable to oceanic changes, overfishing, habitat degradation and habitat loss, contamination resulting from increased pollutant loads, ubiquitous spreading of the swimbladder parasite *Anguilliculoides crassus* and other pathologies. All these threats have probably been acting synergistically (Drouineau et al., 2018) on multiple life history stages, causing a general decrease of the spawning stock biomass and influencing qualitative aspects of the escaping breeders (Belpaire et al. 2016), a feature that might potentially affect migratory and reproductive capacity (ICES, 2016a).

Following this, IUCN classified European eel as critically endangered in 2008 (confirmed in 2010 and 2014) (Jacoby & Gollock, 2014), while the long debate on the measures to be undertaken to protect the global eel stock and to ensure its recovery (ICES, 2002) has provided, within the EU, the grounds for the implementation of a specific framework that was achieved in 2007 with the issuing of a specific Regulation, EC 1100/2007 (Council of the European Union, 2007). This document requires that each Member State exploiting eel by fishery, aquaculture or other, has to establish measures within National Management Plans (NMPs) to reduce anthropogenic mortality and contribute to the global stock restoration towards a common target, identified in the enhancement of silver eel escapement from all continental waters. Furthermore, in 2009, eel was listed under CITES Appendix II, requiring export permits, and in 2011 EU Member States agreed on a zero export quota for the species.

The critical status of the European eel stock has been acknowledged for the Mediterranean since 2010, as and with it the necessity for integration of the Mediterranean Region within the stock-wide coordination of actions for the European eel (Aalto et al., 2016). In this regard, the GFCM Secretariat undertook a number of steps, and at its thirty-seventh session (2013), the GFCM Commission agreed to support an Eel Pilot Action to build a coordinated management framework for the European eel in the Mediterranean Sea. This led to the creation of a Joint ICES/ EIFAAC/GFCM Working Group on European Eel, to a first tentative assessment of the European eel stock in the Mediterranean and to a Liaison Action to focus discussion on the basic needs to build a Mediterranean Eel Management Plan. In this respect, the intention of proposing a management plan for European eel in 2018 was brought forward at the 41st session of the GFCM Commission (FAO, 2017), to be based on the findings summarized within the framework of a dedicated working group on European eel. The elements for such a plan were prepared at WKMEASURES-EEL 2018 (GFCM, 2018) and presented to the 42nd Commission (FAO, 2018). The Commission thus approved Recommendation GFCM/42/2018/1 on a multiannual management plan for European eel in the Mediterranean Sea, that details scope, general and operational objectives, transitional management measures, also addressing the need for improved scientific advice. In this respect, in Part IV of Recommendation GFCM/42/2018/1 it is specified that the GFCM Secretariat shall provide terms of reference for the implementation of a research programme on European eel in the Mediterranean Sea, to be launched in 2019 and completed in 2022, its outcomes to be presented to the forty-sixth session of the GFCM. Relevant issues and priorities for such a research programme were discussed at WKMEASURES-EEL 2019 (GFCM:SAC21/2019/Inf.9).

A total of 176 papers on European eel relevant for the preparation of this Concept note were identified and selected through a specific query on ISI WEB of SCIENCE, SCOPUS and Google Scholar. Recent advances or highlights on issues of key interest such as spawning grounds, genetic structure of the eel stock, biology of the ocean larval phase, evidence of silver eels crossing the Gibraltar Strait to the Atlantic Ocean, confirm that some basic questions relative to the eel in the Mediterranean can be considered clarified (Atlantic reproduction in the Sargasso Sea, genetic structure and panmixia, emigration of spawners from the Mediterranean and transport of larvae from the Atlantic across the Mediterranean Sea). A large number of studies, even recent, are available that contribute to the knowledge of the biology of the eel continental stages (growth, differentiation, reproductive biology, population structure, ecology) for local stocks throughout the Mediterranean, and many papers have been published on recruitment, spawner quality, assessment of local stocks. All this establishes a foundation for future research and a sound basis for any management scheme at the local level. A review of state of the art of recent and ongoing research (1995-2018) allowed also to ascertain that a number of Projects were carried out or are still in progress.

3. STRUCTURE OF THE RESEARCH PROGRAMME

Against this background, also given the time frame available and on the basis of the work plan agreed at WKMEASURES-EEL 2019, including a chronogram of the upcoming meetings (Annex 1), the research programme should be executed as a **Concerted Action** to be achieved by joining forces of ongoing research activities and sharing expertise. In consultation with the experts and on order to maximize the outputs of the concerted action, the need arose to expand the time available for the research programme. The current proposal is, thus, for an 18-month programme.

The general objective is to deal with issues relevant to the setting up of a coordinated framework for management, through two distinct phases: 1) March – December 2020 and 2) January – August 2021. One phase shall deal with the need to identify current and prospective management and monitoring frameworks for eel stocks throughout the Mediterranean area (WPs 1 and 2). A second phase will be mostly concentrated on assessing the eel stock at the local and regional level, in order also to establish a common method of assessment, in order to follow over time the state of the stock in view of its recovery, as resulting from a shared management framework (WP4). Straddling the two phases will be the building of an exhaustive database, also including various aspects relevant to the coordinated evaluation and management of the eel stock in the region (WP3).

Results of the first phase will be shared at the 23rd SAC (2021), while final results will be shared at the 45th Commission (2021)

The programme will have four specific goals, corresponding to four main work packages, within which research teams shall share methodologies, data and expertise, as follows:

- identify and appraise management and protection measures for the recovery of the eel stock relevant to the Mediterranean
- establish a common framework for long-term monitoring of eel in the Mediterranean
- collect and update data concerning eel stock and eel habitats in the Mediterranean Region
- establish a common framework for eel stock assessment

The work-plan foresees a strong coordination framework, also relying on international and national networking, to be implemented as a fifth work-package.

The programme is expected to begin at the latest in March 2020 and end in August 2021. It shall be carried out according to a timetable (see below) detailing the execution of the single work packages, as well as project meetings and the participation to eel-dedicated Working Groups in 2020 and 2021. The Project shall provide specific deliverables within each phase, also detailed below.

The Concerted Action shall involve as many Countries as possible in the Mediterranean area, in order to achieve a coordinated framework for management for Countries that are currently contemplating the preparation of a Management Plan for eel, as well as for those Countries that already have a management Plan in place under Regulation 1100/2007 (for the whole Country or for specific EMUs on the Mediterranean side). Work has already been done towards identifying possible partners and countries to be involved and a tentative composition is outlined in section 7 below.

4. WORKPLAN

It is foreseen that the work plan be divided into five work packages as summarized in Figure 1 and described below in detail.

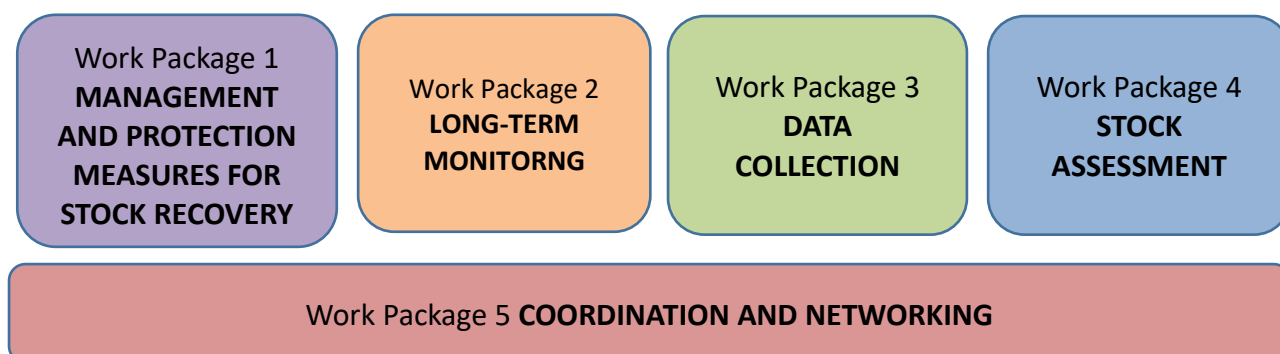


Figure 1. Graphical summary of the five Work Packages

4.1. Work package 1: Evaluation of management and protection measures for the stock recovery

This work package will focus on listing and qualitative analysis of current and prospective management and protection measures, on their feasible application and effectiveness at different spatial scales within the Mediterranean region (sites/habitats/Management Units). This latter issue should also take into account local management strategies (fisheries, Ramsar sites or Protected sites, transnational catchments, stakeholders involvement etc) and local governance frameworks (Management Plans, legislations), in order to envisage the effective potential role of any measure or set of measures in view of the achievement of the recovery of the European eel stock in the Mediterranean area.

This work package should address the following:

- measures addressing commercial and recreational fisheries
- measures addressing habitat loss or migration (upstream and downstream) impairment by damming
- measures addressing habitat restoration, improvement and eel habitats protection
- measures to sustain local stocks (restocking/assisted upstream migration, trap & transport) or to enhance escapement (silver eel release)
- measures addressing reduction of mortalities by hydropower, pumping stations
- measures addressing protection from predators
- any other

Some of these measures or sets of measures are already in place within on-going, or in-preparation, Management Plans. Fishery-related management measures are widely adopted and are based on a variety of measures, reflecting the great diversity of eel fisheries in different countries and in different habitats. A framework for coordination in the Mediterranean has been set and detailed in the Elements for a Management Plan for European eel (2018) and transposed -or to be transposed- by GFCM Recommendation GFCM/42/2018/1. This should soon reflect in a decrease in fishing pressure on the overall eel stock in the Mediterranean area, but its effective implementation and the real efficacy for the recovery of the eel stock, in the first place contributing to the overall silver eel escapement, is difficult to be ascertained and assessed (ICES, 2017a; Hanel et al., 2019).

Measures aiming at sustaining local stocks (restocking, trap & transport), widely implemented in on-going Eel Management Plans through Europe, have a high potential in sustaining eel production, but such practices are not used in the Mediterranean, except when related to fisheries management. These were sporadically present for enhanced fisheries in coastal lagoons in certain areas, mostly in the past when recruitment, and hence seed availability was high. Stocking and translocation of eels still present a number of controversial aspects, widely addressed within a dedicated Workshop (ICES, 2016b), and namely relating, among others, to the risk to alter genetic features of the eel global stock, risks related to spreading of parasites and diseases, potential effects on sex-ratios of eel local stocks. Overall, a main objection also relates to the lack of clear evidence of a net benefit of restocking to the overall stock. Measures to enhance escapement, such as silver eel releases, should also be considered, with the specific aim of reducing silver eel fishing mortality and contributing to escapement, for example for lagoon fisheries at fish barriers.

Measures dealing with habitat improvement or protection, or measures addressing reduction of natural or mortality of indirect anthropogenic origin, have to be considered and addressed with specific emphasis to Mediterranean environments, especially referring to river habitats for which there is scarce information if compared to transitional habitats such as coastal lagoons. Furthermore, the effectiveness of complementary protection measures, such as total bans of specific fisheries for specific stages (recruits or potential breeders) or specific local stocks (high quality) and/or in specific sites or habitats (Protected sites, high quality habitats) or for specific gears to ensure total protection of specific local stocks, should also be evaluated.

Against this background, work package 1 should provide for:

- listing and critical examination of measures within the different categories, also addressing their present implementation and their perspective effectiveness
- feasibility and applicability of different measures in Mediterranean eel habitats, taking into account current management frameworks, eel habitat typologies, spatial scale of application
- defining a priority set of measures to be implemented at the local scale (sites), at the level of specific Management Units and at the Regional scale

with the aim to attain a regional coordination framework for the implementation of management measures for the eel stock recovery in the Mediterranean Region.

4.2. Work package 2: Establishing a framework for long-term monitoring

This work package is aimed at establishing a common structure for monitoring eel stocks, as well as providing standardized data for the assessment of stock indicators.

This should be carried out by:

- Investigation of all the monitoring frameworks actually in place for eel in Mediterranean countries, addressing any issue (fisheries, trade, features of local stocks, recruitment, escapement, stock indicators, quality and contamination also for human consumption, any other)
- Comparison of the Data Collection Framework (EU Regulation 199/2008 and following, EU-Map) and DCRF (GFCM framework for the collection and transmission of fisheries-related data in the GFCM area of application) requirements and implementation status, in order to harmonize provisions and methods and further implement coordination between the two.
- Revision of the methods for collecting data on eel stocks (sampling design, life stage identification, age reading) and monitoring of recruitment, yellow eel standing stock, silver eel escapement, also based on recent findings and current methodological research.
- Agreement on a standardized protocol for eel data collection monitoring at the National levels, that shall harmonise present national and international existing frameworks
- Evaluation of the necessary characteristics for establishing key sites for long term monitoring of basic indicators of the status of the Mediterranean eel stock (glass eel recruitment, silver eel escapement), representative of essential habitat typologies (lagoons, rivers, estuaries) or regional differences (Northern, Southern, Eastern Mediterranean), and identification of such key sites.

4.3. Work package 3: Data collection

This work package is centered around the collection and update of data on three main issues:

- eel available habitats
- biological and ecological features of eel local stocks
- eel exploitation features (effort and landings)

over the Mediterranean Region, including all coastal, transitional and inland waters within Countries that are part of the European eel Southern range of distribution.

The work package should rely on a thorough research and sharing of all existing documentation by consultation with all relevant Institutions, Administrations and Agencies, and proceed on a standardized basis, aiming at the compilation of a database and of thematic maps to be shared and used for further work within the Project.

Therefore, this work package shall provide:

- a standardization of methods and protocols for collecting data
- a standardization of data storage (data bases, digital archives, maps)
- a compilation of databases concerning:
 - a) eel available habitats: this shall address estimation of wetted areas for all habitat typologies (rivers, lakes, coastal lagoons, coastal areas) in order to collect and georeference information and edit such data. This task shall also address collection of information on the environmental status of catchments and habitats, based on all available information (literature, Agencies internal reports, international frameworks for water monitoring and quality assessment and any other source available)
 - b) eel local stocks biological and ecological features: this shall address the gathering of all available qualitative and quantitative information on eel local stocks. Information should concern all eel continental stages (growth, differentiation, reproductive biology, population structure, ecology, etc), and shall be carried out by collecting available literature (published and grey, old and recent, local and international), that can contribute to the characterization of eel Mediterranean local stocks
 - c) eel exploitation and trade: this shall address the collection of all the information on eel fisheries and exploitation, including recreational and aquaculture, either qualitative and/or quantitative, including trade in terms of eel imports and exports. Information shall address as a priority: sites where eel fisheries are present, description of the fisheries (methods, gears, number of fishermen, seasonality, yields) and the collection of landings time series over time for any specific site/fishery available.

Inquiries should also tentatively address information on unreported, unregulated or illegal fisheries that might be present. Data collection shall be carried out by involving all frameworks and administrations able to provide data, both historical and recent.

4.4. Work package 4: Establishing a framework for stock assessment

This work package is centred around establishing a common basis for assessing eel stocks at different scales in the Mediterranean (site/habitat/management unit/country/Region), also providing information on minimum requirements for data, methods, targets for assessment.

Therefore, this work package shall foresee:

- definition of the spatial scale/s for assessment (also based on results of work package 1)
- definition of suitable stock indicators for pristine, present and target stock conditions. Potential indicators are stock biomass indicators and mortality indicators, to derive local stocks and overall global stock status, as agreed internationally (ICES, 2017a, 2017b).
This shall be based on existing relevant information (EIFAAC/ICES/GFCM WGEEL Reports, specific ICES Workshops, outcomes of coordinated Research Projects or Concerted Actions carried out at National and International levels), but also based on on-going or future work (Hanel et al., 2018). The choice of stock indicators and the definition of pristine and target reference conditions should also rely on a specific analysis of eel stocks and habitats in the Mediterranean in the past and at present (also based on results of work package 1)
- revision of existing methods for assessment of stock indicators/reference points, both direct and model-based
- identification of a suitable method/model to be shared, and of minimum requirements for its use, also contemplating the possible applications in data-poor and data-rich conditions.

4.5. Work package 5: transversal work package on coordination and networking

The research programme on European eel outlined in this concept note is aimed at obtaining a better coordination of eel stock management for stock recovery in the Mediterranean region, also involving the possibility of in-depth evaluation of selected case studies, and will require a strong coordination framework, relying on international and national networking. This will comprise the core activity of WP5.

Central coordination will be provided by GFCM Secretariat and will be split in three main tasks which will:

- provide administrative support following the production of Agreements with the Partners, assisting Partners on Administrative matters and financial reporting commitments
- prepare and organize meetings and workshops (kick off, intermediate and final project meetings; WKMEASURES-EEL) and support attendance of Partners to International Working groups (EIFAAC/ICES/GFCM WGEEL 2020)
- provide Scientific Coordination of the Project, including:
 - supervision of the Partners role, involvement and fulfillment of tasks in WPs 1-4 as well as progress monitoring and quality control, and including i) a census of all on-going National and International Projects on eel in the Mediterranean area, and relevant Projects at a wider level , and ii) the creation of a network of Mediterranean teams involved in such Projects, and the evaluation of the possibility to share expertise and data.
 - revision of the DCRF supported by a detailed analysis, in collaboration with all partners, of current frameworks for fishery data collection and eel monitoring (EU Regulation 199/2008 and following, EU-Map, DCRF -GFCM framework for the collection and transmission of fisheries-related data in the GFCM area of application)
 - coordination and support to stock assessment, through WP4;
 - identification of possible case studies for a more in-depth evaluation, in collaboration with all partners and based on the work carried out in WPs 2 and 3; and
 - supervision and coordination in the preparation of progress and final reports and specific deliverables.

4.6. Deliverables

Phase 1: March 2020 – December 2020

- Indications for a common management framework (Guidelines for Man-Plans), and, where relevant, proposals to revise the current Management Plans
- Frameworks for data collection and long term monitoring in Mediterranean countries (or Mediterranean EMUs)
- Website for sharing data, methods, results
- Intermediate report
- Results shared at the 23rd session of the SAC (2021)

Phase 2: January – August 2021

- Database and maps of wetted areas, environmental and geographical characteristics of catchments
- Database of eel local stocks (biological features, exploitation and trade features, etc)
- Definition of proper stock indicators and of a common method for assessment for both data-poor and data-rich situations;
- Tentative: assessment with a common tool for case studies, Management Units, at Regional level under different management scenarios
- Integration of results into existing frameworks (e.g. DCRF)
- Final Report
- Final results shared at the 45th session of the Commission (2021)

5. PROVISIONAL TIMETABLE

| | | Phase 1 | | | | | | | | | | Phase 2 | | | | | | | |
|-----|-------------------------------------|---------|--------|---|---|---|---|---|---|---|--------|---------|----|----|----|----|----|----|--------|
| | | Feb 20 | Mar 20 | | | | | | | | Dec 20 | Jan 21 | | | | | | | Aug 21 |
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| WP1 | Listing and review of measures | | | | | | | | | | | | | | | | | | |
| | Applicability of different measures | | | | | | | | | | | | | | | | | | |
| | Defining a priority set of measures | | | | | | | | | | | | | | | | | | |
| | Regional framework for measures | | | | | | | | | | | | | | | | | | |
| WP2 | Review of monitoring frameworks | | | | | | | | | | | | | | | | | | |
| | Review methods for data collection | | | | | | | | | | | | | | | | | | |
| | Review methods for monitoring | | | | | | | | | | | | | | | | | | |
| | Identification on key sites | | | | | | | | | | | | | | | | | | |
| | Comparison EU-Map - DCRF | | | | | | | | | | | | | | | | | | |
| WP3 | Protocols for collecting data | | | | | | | | | | | | | | | | | | |
| | Georeferenced habitat estimates | | | | | | | | | | | | | | | | | | |
| | Local stocks data | | | | | | | | | | | | | | | | | | |

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|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | Fishery data | | | | | | | | | | | | | | | | | | |
| WP4 | Review of assessment methods | | | | | | | | | | | | | | | | | | |
| | Choice of stock indicators | | | | | | | | | | | | | | | | | | |
| | Choice of spatial scale | | | | | | | | | | | | | | | | | | |
| | Common method and requirements | | | | | | | | | | | | | | | | | | |
| | Tentative assessments | | | | | | | | | | | | | | | | | | |
| WP5 | Coordination and networking | | | | | | | | | | | | | | | | | | |
| | Identification of potential case studies | | | | | | | | | | | | | | | | | | |
| Milestones | Agreements | | | | | | | | | | | | | | | | | | |
| | Kick off meeting 1 | | | | | | | | | | | | | | | | | | |
| | Intermediate meeting - 2 | | | | | | | | | | | | | | | | | | |
| | WGEEL 2020 | | | | | | | | | | | | | | | | | | |
| | Final meeting -3 | | | | | | | | | | | | | | | | | | |
| | WK-Measures 2021 | | | | | | | | | | | | | | | | | | |
| Deliverables | Guidelines for Management Plans | | | | | | | | | | | | | | | | | | |
| | Framework for fishery | | | | | | | | | | | | | | | | | | |

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|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | data collection | | | | | | | | | | | | | | | | | | |
| | Framework for monitoring | | | | | | | | | | | | | | | | | | |
| | Intermediate report | | | | | | | | | | | | | | | | | | |
| | Database of habitat | | | | | | | | | | | | | | | | | | |
| | Database on eel local stock | | | | | | | | | | | | | | | | | | |
| | Database on eel fisheries | | | | | | | | | | | | | | | | | | |
| | Tools for assessment | | | | | | | | | | | | | | | | | | |
| | Assessments (studies, EMU, Regional) | | | | | | | | | | | | | | | | | | |
| | Integration of results into existing frameworks (e.g. DCRF) | | | | | | | | | | | | | | | | | | |
| | Final Report | | | | | | | | | | | | | | | | | | |

6. PROPOSED PARTNERS AND STEERING COMMITTEE

Partners

The conceptual criteria for partner involvement is outlined below and partners that have expressed their interest are reported in Table 1. It should be noted that some expressions of interest are still pending. The potential contribution of each partner that expressed interest to each WP and Task is summarized in Table 2.

- 2 Countries EU with all EMUs in Med have Management Plan, data (to be revised) and expertise to share
- 2 Countries with some EMUs in Med have Management Plan – need to enhance focus on Mediterranean EMUs, data (to integrate) and expertise to share
- 3 Countries in North Africa have no Management Plan, data (to collect and integrate) and expertise to share
- 1 Country eastern Mediterranean have no Management Plan, data (to collect and integrate) and expertise to share
- 1 Country in the Adriatic have no Management Plan, data (to collect and integrate) and expertise to share

TOTAL: 10 Partners + GFCM Supervision

Table 1. **Partners that have expressed their interest (*compiled expression of interest pending; +reply pending)**

| Country | Scientific partner | | Administration focal point | |
|--------------------|--|---------------------|---|-----------------------------------|
| | Institute | Researcher(s) | Administration | Person |
| Albania* | Agricultural University of Tirana | Edmond HALA | Fisheries Directorate, Ministry of Agriculture and Rural Development | Arian PALLUQI |
| Algeria | Centre national de recherche et de développement de la pêche et de l'aquaculture | Zakia MOKRANE | Direction Générale de la Pêche et de l'Aquaculture | Naciba LABIDI |
| Egypt ⁺ | | | | |
| France | Université de Perpignan | Elsa Amilhat | Direction des pêches maritimes et de l'aquaculture, Ministère de l'agriculture et de l'alimentation | Marianna MONNEAU |
| Greece | Hellenic Fisheries Research Institute | Argyrios SAPOUNIDIS | Ministry of Rural Development & Food, Directorate General of Fisheries, Directorate of Aquaculture | Georgia PAPAIOANNOU |
| Italy | Università degli Studi di Roma Tor Vergata | Chiara LEONE | Mipaaf DG fisheries and aquaculture | Lorenzo MAGNOLO Ilaria FERRARO |

| | | | | |
|---------|--|--------------------------|--|---|
| Spain | Universidad de Córdoba | Carlos FERNÁNDEZ DELGADO | Dirección General de Recursos Pesqueros, Secretaría General de Pesca - Ministerio de Agricultura, Pesca y Alimentación | Encarnación BENITO REVUELTA |
| Tunisia | Institut National des Sciences et Technologies de la Mer | Rachid TOUJANI | | |
| Turkey | Çanakkale Onsekiz Mart University | Şükran Yalçın ÖZDİLEK | Ministry of Agriculture and Forestry, DG Fisheries and Aquaculture | Esra Fatma DENİZCİ ÇAKMAK Onur HASALTUNTAŞ |

The following is foreseen for each country:

- One permanent senior researcher: part time, in-kind
- One permanent administrative staff: part time, in-kind
- One/two young researcher (full time) with a specific profile: covered by the project
- Focal point for each country backing up researchers in the data collection at Ministry Directorates, Administrations, Environmental Agencies, Fishermen cooperatives, Electricity boards etc
- Internal travel

Steering Committee

It is foreseen that the research programme will have Steering Committee composed of external scientific experts on European eel as well as representatives of countries including the EU and the GFCM Secretariat.

Table 2. Work Package and Task descriptions, including contribution of each partner

WP 1 – Management and protection measures for stock recovery

| WP | TASK | | Task description | PP 1 ALB | PP 2 ALG | PP 3 EGY | PP 4 FR | PP 5 GR | PP 6 ITA | PP 7 SP | PP8 TUN | PP 9 TUR | GFCM |
|--|--|------------|--|-------------|-------------|-------------|------------|------------|-------------|------------|------------|-------------|------|
| WP1 Management and protection measures for stock recovery | Task 1.1 Eel management frameworks | Task 1.1.1 | Listing of management frameworks actually in place or in preparation for eel in the Country, addressing any issue | | X | | X | X | X | X | X | X | |
| | | Task 1.1.2 | Listing of management measures actually in place for eel in the Country, addressing any issue | | X | | X | X | X | X | X | X | |
| | | Task 1.1.3 | Listing of management measures eventually envisaged for eel in the Country, addressing any issue | | X | | X | | X | X | X | X | |
| | Task 1.2 Habitat management frameworks | Task 1.2.1 | Listing of habitat protection and management frameworks actually in place in the Country, | | X | | X | X | X | X | | X | |
| | | Task 1.2.2 | Listing of habitat protection and management measures actually in place in the Country, | | X | | X | X | X | X | | X | |
| | | Task 1.2.3 | Mapping of protected sites within all habitat typologies (wetlands, lagoons, rivers, coastal areas) in the Country | | X | | X | X | X | X | | X | |
| | Task 1.3 WP1 Coordination | Task 1.3.1 | Design of databases | | | | | X | | | | X | |
| | | Task 1.3.2 | Management of databases | | | | | | | | | X | |

WP 2 – Long-term monitoring

| WP | TASK | | Task description | PP 1 ALB | PP 2 ALG | PP 3 EGY | PP 4 FR | PP 5 GR | PP 6 ITA | PP 7 SP | PP 8 TUN | PP 9 TUR | GFCM |
|--------------------------------|--------------------------------------|------------|--|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|-------------|------|
| WP2 Long-term monitoring | Task 2.1 Monitoring frameworks | Task 2.1.1 | Census of monitoring frameworks actually in place for eel in the Country, addressing any issue | | X | | X | | X | X | X | X | |
| | | Task 2.1.2 | Mapping of sites for eel monitoring in the Country - recruitment, yellow eel, silver eel- | | X | | X | X | X | X | X | X | |
| | | Task 2.1.3 | Description of methods for eel monitoring in the Country (sampling design, life stage identification, age reading) | | X | | X | | X | X | X | X | |
| | Task 2.2 WP2 Coordination | Task 2.2.1 | Design of databases | | | | | | | | X | X | |
| | | Task 2.2.2 | Management of databases | | | | | | | | X | X | |

WP 3 – Data collection

| WP | TASK | | Task description | PP 1 ALB | PP 2 ALG | PP 3 EGY | PP 4 FR | PP 5 GR | PP 6 ITA | PP 7 SP | PP 8 TUN | PP 9 TUR | GFCM |
|-------------------------------|-------------------------------------|------------|---|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|-------------|------|
| WP3 Data collectio n | Task 3.1 Eel habitat | Task 3.1.1 | Collect data of wetted areas for all habitat typologies (sites, EMUs, water bodies, catchments) | | X | | X | X | X | X | X | X | |
| | | Task 3.1.2 | Collect data on environmental quality status of wetted areas for all habitat typologies (sites, EMUs, water bodies, catchments) | | X | | X | X | X | X | X | X | |
| | Task 3.2 Eel local stocks | Task 3.2.1 | Collect data on biological features of eel local stocks from literature (sites, EMUs, water bodies, catchments) | | X | | X | X | X | X | X | X | |
| | | Task 3.2.2 | Collect data on biological features of eel local stocks from national monitorings (sites, EMUs, water bodies, catchments) | | X | | X | | X | X | X | X | |
| | Task 3.3 Eel fisheries | Task 3.3.1 | Collect data on eel fisheries (sites, EMUs, water bodies, catchments) - yields per year (by stage), periods, fishing typologiest etc. | | X | | X | | X | X | X | X | |
| | | Task 3.3.2 | Collect/revise landing time series as available in the Country | | X | | X | | X | X | X | X | |
| | | Task 3.3.3 | Collect information on recreational fisheries | | X | | X | | X | X | X | X | |
| | | Task 3.3.4 | Collect information on IUU eel fisheries | | X | | X | | X | X | X | X | |
| | Task 3.4 Eel trade | Task 3.4.1 | Collect information and data on eel trade | | X | | X | X | X | X | | X | |
| | Task 3.5 WP3 Coordinati on | Task 3.5.1 | Design of databases | | | | | X | X | | | X | |
| | | Task 3.5.2 | Management of databases | | | | | | X | | | X | |

WP 4 – Existing assessments

| WP | TASK | | Task description | PP 1 ALB | PP 2 ALG | PP 3 EGY | PP 4 FR | PP 5 GR | PP 6 ITA | PP 7 SP | PP 8 TUN | PP 9 TUR | GFCM |
|----------------------|----------------------------------|------------|---|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|-------------|------|
| WP4 Stock assessment | Task 4.1 Existing assessments | Task 4.1.1 | Census of local stocks assessment case studies (sites, EMUs, water bodies, catchments) | | X | | X | | X | X | X | X | |
| | | Task 4.1.2 | Methods uses for eel stock assessment in the Country | | X | | X | X | X | X | X | X | |
| | | Task 4.1.3 | Collect data on reference points used in national eel stock assessments (sites, EMUs, water bodies, catchments) | | X | | X | | X | X | X | X | |
| | Task 4.2 WP4 Coordination | Task 4.2.1 | Design of databases | | | | | X | X | | X | X | |
| | | Task 4.2.2 | Management of databases | | | | | | X | | X | X | |
| | | | | | | | | | | | | | |

WP 5 – Coordination and supervision

| WP | TASK | | Task description | PP 1 ALB | PP 2 ALG | PP 3 EGY | PP 4 FR | PP 5 GR | PP 6 ITA | PP 7 SP | PP 8 TUN | PP 9 TUR | GFCM |
|---|--|---------------|---|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|-------------|------|
| WP5 Coordination and supervision | Task 5.1 Administrative support | Task 5.1.1 | Preparation and production of the Agreements with the Partners | | | | | | | | | | X |
| | | Task 5.1.2 | Financial reporting | | | | | | | | | | X |
| | Task 5.2 Preparation and organization of meetings and workshops | Task 5.2.1 | Organization of the 3 project meetings | | | | | | | | | | X |
| | | Task 5.2.2 | Organization of 1 management workshop (WKMeasures) | | | | | | | | | | X |
| | Task 5.3 Scientific Coordination and implementation | Task 5.3.1 | Supervision of the Partners role, involvement and fulfillment of tasks in WPs 1-4; progress monitoring and quality control | | | | | | | | | | X |
| | | Task 5.3.2 | Revision of DCRF | | | | | | | | | | X |
| | | Task 5.3.3 | Coordination and support to stock assessment | | | | | | | | | | X |
| | | Task 5.3.4 | Identification of case studies | X | X | X | X | X | X | X | X | X | X |
| | | Task 5.3.5 | Supervision and coordination in the preparation of progress and final Reports and of specific deliverables | | | | | | | | | | X |

7. BUDGET

A minimum tentative budget (Euro) for ten partners is reported below based on: i) the principles outlined in section 6 of this concept note, ii) a consultation with potential partners, iii) the need for 1.5 GFCM Secretariat consultants, iv) two major meetings per phase.

| | | Type of funding | PHASE 1 | PHASE 2 | TOTAL |
|----------------------|-------------------------------------|-------------------------|---------|---------|----------------|
| Staff | Permanent staff (Senior Researcher) | In kind (co-financing) | 50 119 | 39 136 | 90 000 |
| | Permanent staff (Administration) | In kind (co-financing) | 17 024 | 13 294 | 30 000 |
| | Contract staff (Junior Researcher) | Financed by the project | 211 111 | 168 889 | 380 000 |
| Travel | | Financed by the project | 60 000 | 60 000 | 120 000 |
| Overheads | | Financed by the project | 26 953 | 21 047 | 50 000 |
| | | | | | |
| TOTAL | | | 365 207 | 302 366 | 670 000 |
| TOTAL REQUIRED FUNDS | | | 298 064 | 249 936 | 550 000 |

Updated concept note for a research programme on red coral

Introduction

The present document aims at presenting the revised version of the Regional Research Program for red coral (hereafter RRP) as specifically requested by the Scientific Advisory Committee (SAC; GFCM/41/2017/5), on the basis of the existing concept note.

RRP will be divided in two cumulative phases, with an overall duration of 25 months, starting from March 2020. The first phase of RRP will be intended to deliver outputs to the SAC in 2021, while the second phase will deliver outputs to the SAC in 2022.

RRP is designed in a similar fashion as a concerted action, where research institute contribute with ongoing activities but are also complemented with dedicated funds collected through the GFCM Framework Program by bilateral agreements with donors.

The present document includes:

- i) The overall RRP Timeframe, including detailed timeframes within each phase, presenting actions and sub-actions;
- ii) Description of the actions that will take place for each phase;
- iii) Methodologies;
- iv) Expected outputs;

Timeframe

| | 2020 | | | | | | | | | | 2021 | | | | | | | | | | 2022 | | | | |
|---------|------|---|---|---|---|---|---|---|---|---|------|---|---|---|---|---|---|---|---|---|------|---|---|---|---|
| | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M |
| Phase 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 2 | | | | | | | | | | | | | | | | | | | | | | | | | |

Phase 1

Detailed Timeframe for each Action (and sub-action) of Phase 1

| | 2020 | | | | | | | | | | 2021 | | |
|-----------------|------|---|---|---|---|---|---|---|---|---|------|---|---|
| | M | A | M | J | J | A | S | O | N | D | J | F | M |
| Phase 1 | | | | | | | | | | | | | |
| Action 1 | | | | | | | | | | | | | |
| sub-action 1.1. | | | | | | | | | | | | | |
| sub-action 1.2. | | | | | | | | | | | | | |
| sub-action 1.3. | | | | | | | | | | | | | |
| sub-action 1.4. | | | | | | | | | | | | | |
| Action 2 | | | | | | | | | | | | | |

| | Description | Start Date | End Date |
|-------------------------------------|---|-----------------|------------------|
| Action 1 13 months | First phase of fishery dependent/independent data acquisition & data compilation | March 2020 | March 2021 |
| A1.1 10 months | Data compilation for a baseline assessment of harvested red coral banks | March 2020 | December 2020 |
| A1.2 10 months | Acquisition of fishery dependent data. Observes on-board. | March 2020 | December 2020 |
| A1.3 10 months | Acquisition of fishery independent data. Surveys at sea by means of ROVs. | March 2020 | December 2020 |
| A1.4 5 months | Image analyses processing, retrieving distribution, demography. | October 2020 | February 2021 |
| Action 2 13 months | Pilot Phase for Traceability, certification and MCS systems | March 2020 | March 2021 |

Overall actions description

Action 1 (A1): First phase of fishery dependent/independent data acquisition & data compilation

This action aims at investigating harvested populations of red coral by means of data collected through fishing activities and ROV surveys. The investigation will be performed at least in an area from northern Mediterranean and another one from southern Mediterranean (areas A & B). Further case studies will be carried out in the second phase, or even in the first phase in case (in kind) budget is available. Also, as an outcome of this action, the SAC in 2021 will be provided with precautionary advice on the status of red coral populations and proposed technical measures (if needed).

Action 2 (A2): Pilot Phase for Traceability, certification and MCS systems

This action aims at compiling information on existing traceability mechanisms in Mediterranean countries and providing useful recommendations to strengthen and harmonizing those, through the realization of a pilot project on traceability mechanism of raw coral colonies collected within the GFCM competence area.

Description of sub-actions & relative methodologies

Action 1: First phase of fishery dependent/independent data acquisition & data compilation

Sub-action A1.1. Data compilation for a baseline assessment of harvested red coral banks

Present action will include, in the first instance, an overview of existing data and critical gaps by each CPC, in order to have a complete picture of the data that are present or needed to apply both traditional and innovative stock assessment methods useful to obtain reference points for fishery management. In particular, the possibility to use existing data to provide advice in relation to existing GFCM recommendations (e.g. in relation to trends in the percentage of undersize individuals as well as average colony diameter) will be analyzed in detail.

Expected Outputs

Sub-action A1.1. Data compilation for a baseline assessment of harvested red coral banks

Compilation of data in support of precautionary advice, presentation of the data and analysis to relevant bodies of the GFCM (SRCs and SAC). Report on data collection for providing a pre-assessment for the forthcoming stock assessment in Phase 2.

Sub-action A1.2. Acquisition of fishery dependent data & observes on-board.

Fishery dependent data refer to information based on fishing activities, as defined by relevant GFCM recommendations.

To collect the most accurate and detailed data on harvesting, a program of observers at sea will be realized in Areas A & B, involving relevant GFCM countries.

Scientific observer program can represent a very effective way to implement and to ensure compliance with legal size limits. Moreover, they can collect detailed data on size of catches; this is important for gauging possible changes to exploited populations over time (truncation of age classes and increasing, or heavy predominance of, small colonies in catches). In addition, observers can provide valuable information if asked to collect biological data and samples that will provide the base for the second phase of this project.

In detail, small portions of a subset of the collected colonies can be ethanol- or formalin-preserved in order to be used for biological studies such as reproduction, genetics, and growth.

For this action, involved countries will be asked to identify the proper mechanisms to ensure that observers are host on board of all authorized vessels in a significant number of days throughout the entire harvesting season.

Expected Outputs

Sub-action A1.2. Acquisition of fishery dependent data & observes on-board.

This action aims at setting an on-board observes program for particular red coral fisheries in the GFCM competence area, which will provide useful and accurate fishery dependent data.

On board observers' duties comprise:

- 1) the acquisition geo-referenced data for the mapping of commercial banks;
- 2) the recording of detailed data on catches.

For each harvesting dive, the observers record on board:

- i) geographical coordinates and depths of dives;
- ii) total weight (the total amount of coral harvested in each dive) as well as the weight of the alive and dead fractions separately.
- iii) Morphological parameters such as the basal diameter, maximum height for red coral colonies.

Moreover, the observers are asked to collect samples, useful to implement biological studies foreseen in the next Phase 2, according to protocols provided by the GFCM and Scientific Coordinators.

Sub-action A1.3. Acquisition of fishery independent data. Surveys at sea by means of ROVs.

Fishery independent data refer to data acquired independently from fishing activities.

A1.3. will be based on direct observations of harvested red coral populations by means of ROVs, specifically adapted for scientific research.

The ROV is equipped with a Ultra Short Baseline (USBL) underwater tracking system and provides real time data on its position, depth, and course during the dive. The ROV is also equipped with a High Definition (HD) camera, equipped with a 3-pointer laser beams that provide a constant scale (*i.e.*, 10 cm) for the calibration of the software involved in the forthcoming image analysis and determine with accuracy the investigated surface and also allowing to retrieve morphological information on observed red coral colonies.

Sub-action A1.4. Image analyses processing, retrieving distribution, demography.

In action A1.4., the video material in HD, acquired during A1.3, will be processed through image analyses software in order to retrieve harmonized data on:

- i) Occurrence (n. of patches per transect);
- ii) Density (n. colonies m⁻²);
- iii) Morphological parameters such as Maximum Height, Basal diameter and branching pattern;
- iv) Associated species; a comprehensive mapping of the benthic fauna associated with the presence and the absence of *Corallium rubrum*;
- v) Human impact on these habitats, such as the presence of seafloor litter and the evidence of poaching events (if the case).

Expected Outputs (sub-actions A1.3. and A1.4. combined)

1. Quantify presence, patch frequency and colony density of red corals;
2. Document the present status of ecosystems hosting *C. rubrum* through qualitative and quantitative studies;
3. Extensively map the benthic fauna associated with red coral populations, with useful insights on ecological relations driving the coexistence or the absence of the species;
4. Improve the knowledge on biological aspects of harvested red coral populations, in particular on:
 - 4.a. demography;
 - 4.b. age;
 - 4.c. mortality;

Action 2: Pilot Phase for Traceability, certification and MCS systems

Description & Methodologies

IUU activities and the black-market trade of red coral are known to be common in the Mediterranean Sea, although it is difficult to quantify their extent. Poaching is probably widespread throughout the basin, therefore the enforcement of new MCS measures is critical and urgent to limit illegal harvests. Common traceability mechanisms represent an important element of the GFCM red coral management plan.

Raw colonies are consistently tracked from the time the coral is harvested through the observers on board initiative described in A1.1. through forthcoming steps: landing, sell of raw material to manufactures up to the retailer.

Certification will confirm that precious coral has been collected in compliance with GFCM and national regulations (area, quota, depth, size etc.).

In detail, different traceability mechanisms for raw coral colonies harvested in GFCM countries will be tested, such as individual codes and certificates of origin attached to every colony, in which the production area is consistently disclosed at every stage, from the time the colony is landed and sold as raw material until it finally reaches the store as a finished product. This would not only enable traceability of the harvested corals but also to certify that the coral was collected in compliance with GFCM recommendations and of each production area (i.e. relevant national laws). The feasibility of using eco-labels to certify that the fishing methods and efforts have proven environmentally sustainable is a further option that will be explored.

Expected Outputs

Action 2 is a pilot action that aims at providing a set up for an effective traceability mechanism for raw coral colonies collected by scientific observers within the GFCM competence area, which could be effective in helping to curtail IUU fishing.

List of deliverables (Phase 1)

- i) Report on data collection for providing a pre-assessment for the forthcoming stock assessment in Phase 2;
- ii) Databases and maps of surveyed red coral banks;
- iii) Database of investigated banks (demography, exploitation etc.)
- iv) Methodologies and protocols for data collection and long-term monitoring
- v) Preliminary recommendations for implementing a traceability system;
- vi) Final Report

Partner composition (Phase 1)

The following countries of the GFCM competence area expressed their willingness to be involved in RRP:

- i) Croatia;
- ii) France;
- iii) Greece;
- iv) Italy;
- v) Monaco;
- vi) Morocco;
- vii) Spain;
- viii) Tunisia;

5 EU Countries (Croatia, France, Greece, Italy, Spain): 1 Country with a national management plan and a strong expertise in red coral fishery management (Italy); 1 Country with an ongoing national research program on red coral management (Croatia) and 2 countries with national regulation for red coral fishery (France and Spain). All countries involved have expertise to share.

1 non-EU Country (Monaco): expertise to share.

2 non-EU Countries from north Africa (Morocco and Tunisia): expertise to share.

TOTAL: 8 Partners (of which 1 acting as Leading partner/scientific coordinator) + GFCM Secretariat

Provisional Budget

The overall budget for the full accomplishment of all actions included in Phase 1 is set at 150,000€. This amount is expected to cover:

- Research programme coordinator (17000)
- Experts (2 experts per case study on data collection and traceability) (total 55000)
- Support to case studies for ROV(68000)
- Travel to technical meetings (10000)

Phase 2

Phase 2 will include the continuation of **Action 1** and **Action 2** and relative sub-actions, which started in **Phase 1**, eventually amended based on the results of the first year of experiments. In addition, it contains additional actions (**Actions 3, 4 and 5**) that implement the objectives of all work packages listed in the Updated Concept note on a research program on red coral (*Corallium rubrum*) in the Mediterranean Sea.

| | 2020 | | | | | | | | | | | | | | | | | | | | | | | | 2021 | | | | | | | | | | | | 2022 | |
|----------------|---------|---|---|---|---|---|---|---|---|---|---|---|--|----------------|---|---|---|---|---|---|---|---|---|---|------|---|--|--|--|--|--|--|--|--|--|--|------|--|
| | M | A | M | J | J | A | S | O | N | D | J | F | | M | A | M | J | J | A | S | O | N | D | J | F | M | | | | | | | | | | | | |
| | Phase 1 | | | | | | | | | | | | | Phase 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Action 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sub-action 1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sub-action 1.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-action 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sub-action 1.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Action 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | Action 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | Action 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | Sub-action 4.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | sub-action 4.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | Action 5 | | | | | | | | | | | | | | | | | | | | | | | | |

| Action | Description | Start Date | End Date |
|------------------------------|---|------------|------------|
| Action 1 12 months | Second phase of Action 1 (eventually amended based on the results of the previous years' experience) | April 2021 | March 2022 |
| Action 2 12 months | Continuation of the action on traceability, based on the outputs from the pilot experience. | April 2021 | March 2022 |
| Action 3 12 months | Ex-situ laboratory analyses based on the collection of samples of live red coral colonies performed in Phase 1, eventually implemented in Phase 2 | April 2021 | March 2022 |
| Action 4 12 months | Stock Assessment and Recovery dynamics | April 2021 | March 2022 |
| A4.1 12 months | traditional (direct and indirect) and innovative stock assessment methods | April 2021 | March 2022 |

| Action | Description | Start Date | End Date |
|-------------------------------------|--|------------|------------|
| A4.2 12 months | Studies on dynamics and timing of recovery of harvested populations and of now protected (but previously exploited) populations within MPAs or no-take areas | April 2021 | March 2022 |
| Action 5 12 months | Pilot action on detailed socio-economic analysis of the red coral fisheries in the GFCM competence area | April 2021 | March 2022 |

Overall actions description

Action 1 (A1): Second phase of fishery dependent/independent data acquisition & data compilation

A1 represents the continuation of the one conducted in Phase 1. In detail, Action 1 in the second phase will include more case studies.

Action 2 (A2): Continuation of the action on Traceability, certification and MCS systems

This action represents the continuation of the action conducted in Phase 1, which will be possibly expanded including other areas.

Action 3 (A3): Ex-situ laboratory analyses based on the collection of samples of live red coral colonies performed in Phase 1, and extended to available samples from Phase 2

A3 focus on ex-situ laboratory analyses on harvested populations of red coral by means of samples collected through fishing activities and ROV surveys.

Action 4 (A4): Stock Assessment and Recovery dynamics

A4 aims at developing suitable stock assessment models for red coral. The action aims also at studying the dynamics and timing of recovery of harvested populations and of now protected (but previously exploited) populations within MPAs or no-take areas.

Action 5 (A5): Pilot action on detailed socio-economic analysis of the red coral fisheries in the GFCM competence area

A5 is a **Pilot Action** aiming at investigating socio-economical aspects of red coral fisheries across the GFCM competence area, which is an area characterized by a wide heterogeneity, including EU and non-EU countries. Such factors could be important in modulating the harvesting activities across countries and, as such, do constitute precious information as further support in the development of sustainable management of the resource.

Description & Methodologies

Action 1: Continuation of fishery dependent/independent data acquisition & data compilation

Sub-action A1.1. Data compilation for a baseline assessment of harvested red coral banks

Present sub-action will continue the data collection and the analysis critical gaps for each CPC, integrating the work already started in the homonymous sub-action from Phase 1.

Expected Outputs

Sub-action A1.1. Data compilation for a baseline assessment of harvested red coral banks

Integration of data in support to developed advice, presentation of the data and analysis to relevant bodies of the GFCM (SRCs and SAC).

Sub-action A1.2. Acquisition of fishery dependent data & observes on-board.

This sub-action will continue the acquisition of data on harvesting through a program of observers at sea. During the second phase of RRP, the possibility to extend to new fisheries the observes at sea experience will be evaluated. During Phase 2 observers will continue the collection of biological samples for biological studies.

Expected Outputs

Sub-action A1.2. Acquisition of fishery dependent data & observes on-board.

The continuation of this sub-action will consolidate on-board observes programs in already established red coral fisheries in GFCM competence area, with the aim to extend this program to new fisheries.

Sub-action A1.3. Acquisition of fishery independent data. Surveys at sea by means of ROVs.

Sub-action A1.3. in Phase 2 will continue the direct observation of harvested red coral populations by means of ROVs, ultimately expanding the research area investigated during the first phase.

Sub-action A1.4. Image analyses processing, retrieving distribution, demography

As in Phase 1, sub-action A1.4. will aim at processing the acquired ROV video material through image analyses software in order to retrieve harmonized data on:

- i) Occurrence (n. of patches per transect);
- ii) Density (n. colonies m⁻²);
- iii) Morphological parameters such as Maximum Height, Basal diameter and branching pattern;
- iv) Associated species; a comprehensive mapping of the benthic fauna associated with the presence and the absence of *Corallium rubrum*;
- v) Human impact on these habitats, such as the presence of seafloor litter and the evidence of poaching events (if the case).

Expected Outputs (sub-actions A1.3. and A1.4. combined)

1. Quantify presence, patch frequency and colony density of red corals;
2. Document the present status of ecosystems hosting *C. rubrum* through qualitative and quantitative studies;
3. Extensively map the benthic fauna associated with red coral populations, with useful insights on ecological relations driving the coexistence or the absence of the species;
4. Improve the knowledge on biological aspects of harvested red coral populations, in particular on:
 - 4.a. demography;
 - 4.b. age;
 - 4.c. mortality;

Action 2: Traceability, certification and MCS systems

Description & Methodologies

In phase 2, A2 will aim at testing the efficacy and feasibility of recommendations identified in phase 1 as support for the development of a traceability protocol for harvested red coral colonies.

Expected Outputs

Action 2 will deliver a report on the output of tested recommendations and advice for the implementation of such certification protocols in the GFCM area.

Action 3: Ex-situ laboratory analyses based on the collection of samples of live red coral colonies performed in Phase 1, eventually implemented in Phase 2.

Ex-situ laboratory analyses will be performed. They will be based on the collection of samples of live red coral colonies realized within Phase 1 and eventually implemented in Phase 2.

These colonies will be collected by the manipulator arm fitted on the ROV and/or picked by professional divers actively involved in the research in order to retrieve data on:

- Demography: Measurements made on entire colonies collected with ROVs will be compared to image analysis-based data in order to calibrate the two types of measurements (digital images versus colonies). These data will allow testing the utility of ROVs surveys in population dynamic studies.
- Age and reproduction: A representative sample of colonies, including all size classes of the populations investigated, will be used for determining the age and reproduction biology. Also, the reproductive features of both polyps and colonies of deep *C. rubrum* will be investigated on specimens collected on seasonal basis.

- Genetics: Small portions of branches of colonies will be used for genetic analyses. Existing and new genetic markers will be used to investigate the connectivity among red coral populations and the possible effects of fisheries genetic erosion due to harvesting (fisheries genetics).
- Mortality: the colonies will be examined for the presence of epi- and endobionts.

Expected outputs

A3 will allow to improve the knowledge on biological aspects of red coral harvested populations in particular on:

- demography,
- age,
- growth,
- reproduction,
- mortality,
- genetic variability and connectivity within and among areas.

Action 4: Stock Assessment and Recovery dynamics

Action 4 will apply both traditional (direct and indirect) and innovative stock assessment methods to have conventional value (reference points), which are useful in the management of red coral resource.

New specific models, highlighting how long the fishery might take to respond to the adjustments made in the management measures, will be tested. Projections will be made using a range of models, including age-based and length-based analytical models and biomass dynamic forms.

Expected outputs

Sub action A4.1: traditional (direct and indirect) and innovative stock assessment methods

Sub action A4.1. will allow for the application of different, both traditional (direct and indirect) and innovative, stock assessment methods in red coral populations.

1. Sub action A4.2: Studies on dynamics and timing of recovery of harvested populations and of now protected (but previously exploited) populations within MPAs or no-take areas.

2. Sub action A4.2. aims at providing useful insights on the recovery process of harvested populations of Mediterranean red coral, with specific focus on in situ observation of growth pattern and relative demographic processes occurring after the protection of banks. Recovery dynamics will be summarized investigating three processes that occur in harvested populations: settlement of new larvae, growth to maturity and reproduction. The settlement of larvae, and the growth of recruits will be documented and constantly monitored through periodical inspections based on non-invasive procedures. Photo and/or video documentation through ROV surveys (in deep sites) or divers (shallow sites) will be realized in order to measure the recruitment, the survival and growing rates in red coral populations undergoing a recovery process.

Given the duration of the project it will not be possible to document the growth of the newly settled colonies up to the size of maturity and reproduction (it requires years), but only to document the settlement and to describe and compare the evolution and timing of the recovering process of the whole population in different areas, that is in newly-, recently- or old-established protected sites.

Expected outputs

3. Sub action A4.2: Studies on dynamics and timing of recovery of harvested populations and of now protected (but previously exploited) populations within MPAs or no-take areas.

Describe recovery processes occurring at sea to build up solid guidelines and protocols for the monitoring and facilitation of the recovering populations.

Action 5: Pilot action socio-economic analysis of the red coral fisheries in the GFCM competence area

Action 5 represent the **pilot** socio-economic analysis of the red coral fisheries in the GFCM competence areas will be performed. It will allow to elucidate all the external aspects affecting the fishery. In particular, questionnaires will be submitted to fishers in order to acquire information, among others, on: i) age; ii) education; iii) years of activity in the sector; iv) eventual other employments; v) annual income; vi) country of origin.

Expected output

Get a detailed picture of the socio-economic context of red coral fishery within the GFCM competence area. Such data constitute the base for further studies regarding, among others, the development of bioeconomic models and economic indicators, essential for the sustainable exploitation of this resource.

Partner composition

Additional partners from the same countries mentioned for Phase 1 will be involved in Phase 2

Provisional Budget (Phase 2)

The overall budget for the full accomplishment of all actions included in Phase 2 is set at 247,000€.

This amount is expected to cover:

- Research programme coordinator (17000)
- Experts (2 experts per case study on data collection and traceability + 2 experts for lab. Experiments + 2 expert stock assessment + 2 expert socioeconomy) (total 150000)
- Support to case studies for ROV(30000)
- Laboratory consumables (40000)

Travel to technical meetings (10000)

Benchmark assessments planned for Mediterranean and Black Sea priority species for the 2019/2020 intersession by subregion

| Subregion | Benchmark assessments | | |
|-----------|--|---|---|
| | Species | GSA | Timing |
| Western | <i>Pagellus bogaraveo</i> | 01 and 03 | To be finalized and presented at WGSAD 2019 |
| | <i>Merluccius merluccius</i> | 01-07, 09-11 | Independent session before WGSAD 2019 (with other GSAs) |
| | <i>Sardina pilchardus</i> | 01-04, 06-07, 09-11 | 2019 WGSASP |
| Central | <i>Merluccius merluccius</i> | 12-16, 19, 20 | Independent session before WGSAD 2019 (with other GSAs) |
| Adriatic | <i>Sardina pilchardus</i> | 17-18 | Continuation of previous benchmark |
| | <i>Engraulis encrasicolus</i> | 17-18 | Continuation of previous benchmark |
| Eastern | <i>Sardinella aurita</i> | 24*, 26, 27 *pending the outcomes of the FAO-EastMed working group | Independent session before SRC-EM 2020 |
| | <i>Merluccius merluccius</i> | 22, 26 | Independent session before WGSAD 2019 (with other GSAs) |
| Black Sea | <i>Engraulis encrasicolus ponticus</i> | 29 | Independent session before WGBS 2020 |
| Regional | <i>Coryphaena hippurus</i> | All | February-April 2020 |

Programme of work for the testing of the “Matrix for the characterization of fishing activities”

In view of adopting a characterization of small-scale fisheries in the Mediterranean and the Black Sea (paragraph 1 of the RPOA-SSF) the SAC and WGBS agreed to expand testing of the “Matrix for the characterization of fishing activities” at national levels, following the refined common methodology and based on a representative sample, and organize a session for data validation.

This exercise is foreseen to be carried out as follows:

Creation of a network of experts

Experts agreed that the use of a representative sample of national fleets in the testing of the characterization matrix was imperative in order to ensure the validity and comparability of results.

A network of experts, willing to contribute to this exercise and with access to their national-level data in line with the characterization matrix variables, is therefore needed:

CPCs that have participated in the GFCM socio-economic survey:

- Data has already been collected to facilitate the testing of the matrix and it is proposed to continue working with the socio-economic survey national focal points for this exercise.

CPCs not participating in the GFCM socio-economic survey:

- National experts are foreseen to be identified in agreement with national administrations.

Coordination

The GFCM Secretariat is foreseen to coordinate this activity at the regional level and to liaise with national experts to provide guidance in applying and analysing the data. Steps will be taken to anonymize national data prior to sharing at a regional level, as necessary.

Methodology

The matrix should be applied to individual fishing units (vessels) using a representative sample of the national fleet. Raw national data is foreseen to be handled only by the national experts. Common methodological guidelines for applying the matrix will be prepared, together with a common data sharing file. Training of national experts may be envisaged as necessary.

In view of facilitating a harmonized analysis at the regional level, data are foreseen to be shared with the regional coordinator, through the common data sharing file, once the matrix has been applied to national data and therefore data has been coded and anonymized.

A first draft regional analysis is then foreseen to be prepared by the regional coordinator and resubmitted to national experts for comments and additional input, in view of finalizing an outcome document for this exercise.

Discussion and validation of results

In view of producing technical advice on elements for a regional characterization of SSF, side events on the occasion of the SAC and WGBS are foreseen in order to discuss the results of this characterization matrix exercise.

In parallel, in the context of the SSF University (foreseen within the RPOA-SSF), a stakeholder forum is foreseen in order to compile and integrate the views of stakeholders in the technical advice produced.

Concept note and programme of work of the SSF University

SSF University: strengthening the capacity of small-scale fishers and fish workers in the Mediterranean and the Black Sea

BACKGROUND

Small-scale fisheries (SSF) in the Mediterranean and Black Sea region represents an important segment of the fishing sector, accounting for 84 percent of the fleet in the region and employing around 60 percent of all fisheries workers, including both men and women along the value chain. Recognizing this importance, countries of the Mediterranean and the Black Sea came together on the occasion of the High-level conference on sustainable small-scale fisheries in the Mediterranean and the Black Sea (Malta, 25-26 September 2018) to adopt a Ministerial Declaration on a Regional Plan of Action for Small-scale Fisheries in the Mediterranean and the Black Sea (RPOA-SSF).

Through the RPOA-SSF, countries of the GFCM area of application have set in motion a series of actions, to be carried out over the course of its 10-year implementation, to promote the sustainability of the region's SSF, also in line with the *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication* (SSF Guidelines)⁶. In particular, the RPOA-SSF includes recommendations on the need to ensure that small-scale fishers and fish workers have the necessary capacity and skills to contribute towards sustainable small-scale fisheries and livelihoods. To this end, a range of empowering, organisational strengthening and skills development activities are recommended. Specifically, paragraph 39e of the RPOA-SSF calls for countries to:

“Facilitate education and training opportunities for men and women of the fisheries sector, such as summer universities, aimed at developing fisheries-specific skills, policy knowledge (fisheries, environment) and, in particular, knowledge and innovative solutions and technology developments”

This concept note outlines the framework for this “Stakeholder University” programme, which is foreseen to be carried out in collaboration with the Friends of SSF regional platform, under the coordination of the GFCM.

OVERALL STRUCTURE AND TARGET PARTICIPANTS

The “SSF University” is expected to leverage existing trainings underway within the region, ensuring greater reach to all GFCM contracting parties and cooperating non-contracting parties, as well as to develop new programming to address regional and subregional needs.

Depending on the subject at hand, trainings may be carried out at local, national, subregional or regional levels, as appropriate. The length of the training may also depend on the subject at hand and a mix of classroom learning, in the field experience and peer-to-peer exchanges may be foreseen.

The first “SSF University” trainings are foreseen to be implemented in 2020, after which results will be evaluated and the programme adjusted, as necessary, for the programme's continuation.

Topics and course contents

In line with the needs identified through the consultations on priority actions for the implementation of the RPOA-SSF, held within relevant GFCM working groups and subregional committees as well as within the context of the Friends of SSF regional platform, a list of topics is proposed below. Topics specifically geared toward building capacity for future generations of fishers, as well as women, are particularly encouraged.

- 1) **Safety at sea, navigation and captain duties:** safety equipment, how to use it and related regulations; existing technologies promoting safety and facilitating navigation; labour laws and regulations onboard vessels, etc.
- 2) **Business planning and insurance:** how to draw up a business plan, accounting, insuring your business, etc.
- 3) **Organizational strengthening:** how to set up a cooperative board, producer or interest organization, how to run your organization, etc.

⁶ <http://www.fao.org/voluntary-guidelines-small-scale-fisheries/en/>

- 4) **Marketing:** e-commerce and social media, understanding the customer, requirements in different markets and market trends, etc.
- 5) **Fishing and the environment:** fishing and ecosystem interactions, what is illegal, unreported and unregulated (IUU) fishing, long-term effects of overfishing.
- 6) **Participatory data collection, reporting and monitoring:** why data on fish catches are important - what analyses are carried out on collected data and what the results are used for, systems and technologies for data collection, participatory monitoring, etc.
- 7) **Fish quality and safety:** understanding fish quality and links to markets and prices, including improving onboard catch preservation, fish processing techniques, packaging and transport, etc.
- 8) **Marking of fishing gear:** the impact of marine litter (including abandoned fishing gear) and innovative solutions for addressing marine plastic, as well as advantages to fishers
- 9) **Selectivity and fishing technology:** use of grids and other technology to reduce discards and bycatch
- 10) **Vocational schools:** training the next generation of fishers and passing on Local Ecological Knowledge (LEK)
- 11) **Social protection for SSF:** enhancing the role of cooperatives in facilitating access to state social protection systems and in providing informal social protection for members.
- 12) **Financing and developing projects:** identifying funding sources, applying for grants and “start-up incubator”
- 13) **Disseminating best practices and raising awareness in the region:** women’s fisher exchanges, local fishing/fish cuisine festivals, etc.
- 14) **Technology training:** use of apps, GIS, fish finding devices, monitoring and control tools tailored to SSF, etc.
- 15) **Diversification of fishing activity:** engaging in pescatourism and other related activities
- 16) **Co-management academy**
- 17) **Entrepreneurship, leadership and negotiation training**
- 18) **Existing legal basis and practical implications for SSF:** the MedFish4Ever declaration, Sofia Declaration, MAPs, existing management measures and more
- 19) **Interactions between SSF and other marine economies:** advantages and challenges for SSF in engaging in marine spatial planning
- 20) **Climate change and other sustainability challenges**

Work plan: identification and development of 2020 SSF University sessions

In view of leveraging existing trainings and workshops underway within the region and facilitating greater reach of these sessions to all GFCM contracting parties and cooperating non-contracting parties, a call for proposals through the GFCM website is foreseen at the end of 2019.

Specific programming for the first year (2020) will be identified in coordination with relevant partner organizations – in particular the Friends of SSF – and will be selected in line with the priority topics determined by the Commission. The specific “SSF University” sessions for 2020 will be announced through the GFCM website and disseminated among GFCM and partner networks.

Expected participants

Interested participants will be invited to register their interest via the GFCM website.

The courses will be directed to small-scale fishers and fish workers, but also to government officials. Eligible students should work in small-scale fisheries on a day-to-day basis, either as a professionals (in the harvesting subsector, or in pre- or postharvest activities) or in a government position dealing with small-scale fisheries support and management. Each course is foreseen to include approximately 15-25 students, and will aim to promote geographic and gender balance among participants, as relevant to the topic at hand. In some cases, “trainings of trainers” may be considered.

Logistics: venues, dates and instruction language

The location, date and other logistical details will be determined in line with the identified topic, the target participants and other logistical concerns. Although this capacity building programme was initially conceived of as a “summer university”, other seasons may also be considered in order to avoid conflicts with periods of high earnings for small-scale fishers. Interpretation will be foreseen, as relevant and as feasible, in order to accommodate the participation of small-scale actors with limited knowledge of foreign languages.

Programme of work on the implementation of fisheries data quality indicators on the DCRF online platform

The implementation of quality indicators to assess the data submitted by CPCs through the online platform of the GFCM Data Collection Reference Framework (DCRF) has been identified by SAC, WGBS and CoC as a crucial step to consolidate the use of data for scientific advice (e.g. for the assessment of status of stocks, provision of advice on management measures for selected fisheries and preparation of the Status of Mediterranean and Black Sea fisheries – SoMFi) and to assess the compliance of CPCs with existing recommendation. To this end, the GFCM Secretariat conducted a feasibility phase on the tentative application of quality indicators to the fisheries data (reference year 2017) transmitted via the DCRF online platform. The preliminary results of such phase identified a series of issues requiring further investigation through a dedicated workshop with a view to ensure, in the long term, a consolidated and adaptive application of fisheries quality indicators according to the different assessment purposes (scientific or compliance). To this end, the next steps shall be:

- Analyse the results of the feasibility phase for the implementation of fisheries data quality indicators (timeliness, completeness, conformity, stability and consistency) put at disposal on the DCRF online platform;
- Review the definition and thresholds for the different indicators for each DCRF task (data tables);
- Identify priorities for the quality assessment, in line with the main use of the data received (e.g. in line with the analysis done by SAC and WGBS) and the need to assess compliance (e.g. in line with the requirements of the CoC);
- Identify elements for improving the representation of outputs stemming from data quality assessment procedures through dedicated reports and online dashboards;
- Propose a roadmap for the consolidation of the data quality assessment.

Terms of reference for Working Group on the Assessment of Alternative Management Measures (WGMSE)

The WGMSE will provide support to the SAC and the WGBS towards advice on the impacts of alternative measures for selected fisheries, in particular those for which the Commission has requested it, or for which the SAC/WGBS has proposed to implement immediate management measures.

General terms of reference

- Revise the state of the art of MSE processes both in the Mediterranean and Black Sea and in other contexts around the world, and propose advances towards robust advice on alternative management measures, including on data limited stocks
- For the selected fisheries and based on the management scenarios and reference points agreed in the context of the GFCM (i.e. as provided in the GFCM guidelines for management plans or as requested by the Commission or the SAC/WGBS), assess the potential effects on stocks and fleets of the implementation of alternative scenarios, including:
 - a. the identification of biological, stock assessment, pressure and socioeconomic data (time series) and parameters needed to run the model;
 - b. the identification of components of the simulation model for which a sensitivity analysis coherent with the model assumptions should be run and review of the characteristics and the assumptions related to the different components of the simulation models used for the assessment of potential effects of management scenarios (e.g. biological, pressure and socioeconomic);
 - c. running the simulation scenarios and providing comparative tables of the expected status of stocks and fleet indicators (e.g. catch, socioeconomic indicators, etc) in comparison with agreed reference points.

The presence of fisheries and technical experts, including external experts, is required. This should be facilitated by the GFCM and the relevant FAO Regional projects.

Terms of reference for the Working Group on Essential Fish Habitats (EFH) and Vulnerable Marine Ecosystems (VME)

General terms of reference

- Review, develop and propose methodologies for the definition, identification and analysis of relevant benthic species and habitats, the identification of fishing footprint, and other issues relevant for the advice on FRAs
- Maintain liaison and contact with other relevant expert groups related to the provision of advice on spatial issues, including other GFCM expert groups (e.g. WG SAs) as well as relevant WGs of partner organizations (ICES, SPA/RAC, etc.)
- Address requests made from the SAC and Commission on issues related to FRAs, including on EFH and VMEs.

The GFCM work should focus on three main components, namely:

FRAs

The working group shall:

- review the proposals for the establishment of new FRAs and identify priorities or initiate the development of new proposals;
- analyse, in coordination with other relevant expert groups (e.g. WGs on stock assessment, WKMSE) data from scientific monitoring of existing FRAs;
- make suggestions in view of establishing monitoring plan;
- assess the effectiveness of the FRAs and their contribution to global targets.

EFH

The working group shall:

- compile the available information on EFH (e.g. from observations, models);
- prepare a draft advice on priority areas, species and critical life stages as well as suggest potential management measures;
- advance on connectivity and network issues

VME

The working group shall:

- compile the available information on VME indicators (e.g. from surveys, fisheries);
- prepare a draft advice on priority areas and potential management measures;
- provide other suggestions to minimize significant adverse impacts of fisheries on VMEs.

Terms of reference of the Working Group on Recreational Fisheries (WGRF)

The main objective of the Working Group is to coordinate technical, scientific and socio-economic activities relating to recreational fisheries in order to fill the main data gaps relating to this sector, to produce advice for consideration and validation by the SAC and WGBS and to support the sustainable management of recreational fisheries within an Ecosystem Approach to Fisheries perspective. To this end, the WGRF shall:

- Provide advice on the implementation of technical outputs of Target 2 of the mid-term strategy in relation to recreational fisheries;
- Measure the biological and ecological impacts of marine recreational fishing activity on fish stocks, particularly for priority species, and on the marine environment;
- Measure the socio-economic impact of marine recreational fishing activity on coastal communities in the Mediterranean and Black Sea, including its interaction with related sectors such as tourism and small-scale fisheries;
- Harmonize methodologies for assessing recreational fisheries, towards improved data collection in support of sustainable recreational fisheries management;
- Identify interactions between recreational and small-scale fisheries, with a view to assessing potential conflicts, including competition for resources, competition for space and gear interactions.

The specific objective of the WGRF for the 2019–2020 intersession is to:

- Comment on the application of the draft “Handbook for data collection on recreational fisheries in the Mediterranean and the Black Sea” and consolidate experience from its initial piloting, with a view to revising the draft handbook and resubmitting it to the SAC for its consideration.

GFCM autonomous budget for 2020

| | | USD | Share of total % |
|---|---|------------------|------------------|
| STAFF | Professional staff (10) | 1 504 000 | 57.60 % |
| | Administrative staff (7) | 465 000 | 17.81 % |
| | TOTAL STAFF | 1 969 000 | 75.41 % |
| FUNCTIONING | Temporary human resources and overtime, Consultants, Travel, Expendable and non-expendable procurement, GOE, Internal/External services | 255 464 | |
| | TOTAL FUNCTIONING | 363 000 | 13.90 % |
| SUBTOTAL 1 (staff + functioning) | | 2 332 000 | |
| ANCILLARY | Hospitality and Miscellaneous (1 %) | 23 320 | |
| | Participation Fund (2.5 %) | 58 883 | |
| | SUBTOTAL 2 | 2 414 203 | |
| | FAO Support Costs (4.5% of subtotal 2) | 108 639 | |
| | SUBTOTAL 3 | 2 522 842 | |
| | GFCM Working Capital Fund (3.5% of subtotal 3) | 88 299 | |
| AUTONOMOUS BUDGET (USD) | | 2 611 142 | |

**Contributions to the GFCM budget for 2020
(based on 2015–2017 averages)**

| Contracting Party | CONTRIBUTION | | BASIC FEE | GDP COMPONENT | | CATCH COMPONENT | |
|-------------------|------------------|-------|----------------|---------------|----------------|-----------------|------------------|
| | USD | % | USD | Index | USD | Weighted Total | USD |
| Albania | 29 277 | 1.12 | 11 353 | 1 | 6 528 | 34 878 | 11 397 |
| Algeria | 78 071 | 2.99 | 11 353 | 1 | 6 528 | 184 204 | 60 190 |
| Bulgaria | 17 881 | 0.68 | 11 353 | 1 | 6 528 | | |
| Croatia | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Cyprus | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Egypt | 76 752 | 2.94 | 11 353 | 1 | 6 528 | 180 166 | 58 871 |
| France | 141 910 | 5.43 | 11 353 | 20 | 130 557 | | |
| Greece | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Israel | | | | | | | |
| Italy | 141 910 | 5.43 | 11 353 | 20 | 130 557 | | |
| Japan | 141 910 | 5.43 | 11 353 | 20 | 130 557 | | |
| Lebanon | 21 304 | 0.82 | 11 353 | 1 | 6 528 | 10 477 | 3 423 |
| Libya | 48 296 | 1.85 | 11 353 | 1 | 6 528 | 93 082 | 30 415 |
| Malta | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Monaco | 11 353 | 0.43 | 11 353 | | | | |
| Montenegro | 12 611 | 0.48 | 11 353 | | | 3 850 | 1 258 |
| Morocco | 36 993 | 1.42 | 11 353 | 1 | 6 528 | 58 489 | 19 112 |
| Romania | 17 881 | 0.68 | 11 353 | 1 | 6 528 | | |
| Slovenia | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Spain | 76 631 | 2.93 | 11 353 | 10 | 65 279 | | |
| Syria | 19 801 | 0.76 | 11 353 | 1 | 6 528 | 5 878 | 1 921 |
| Tunisia | 146 642 | 5.62 | 11 353 | 1 | 6 528 | 394 054 | 128 761 |
| Turkey | 423 298 | 16.21 | 11 353 | 10 | 65 279 | 1 060 922 | 346 666 |
| EC | 785 466 | 30.08 | 11 353 | | | 2 369 064 | 774 114 |
| | | 100 | | 140 | | 4 395 064 | |
| | 2 611 142 | | 261 114 | | 913 900 | | 1 436 128 |

| Total budget | 2 611 142 | USD |
|--------------------------------|-----------|-----------------|
| Basic fee | 10% | of total budget |
| | 261 114 | USD |
| Number of Contracting Parties* | 23 | |
| Total budget less basic fee | 2 350 027 | USD |
| GDP component | 35% | of total budget |
| | 913 900 | USD |
| Catch component | 55% | of total budget |
| | 1 436 128 | USD |

* Contracting Parties paying their contributions to the autonomous budget

GFCM autonomous budget for 2021

| | | USD | Share of total % |
|---|---|------------------|------------------|
| STAFF | Professional staff (10) | 1 524 000 | 58.37 % |
| | Administrative staff (7) | 505 000 | 19.34 % |
| | TOTAL STAFF | 2 029 000 | 77.71 % |
| FUNCTIONING | Temporary human resources and overtime, Consultants, Travel, Expendable and non-expendable procurement, GOE, Internal/External services | 303 000 | |
| | TOTAL FUNCTIONING | 303 000 | 11.60 % |
| SUBTOTAL 1 (staff + functioning) | | 2 332 000 | |
| ANCILLARY | Hospitality and Miscellaneous (1 %) | 23 320 | |
| | Participation Fund (2.5 %) | 58 883 | |
| | SUBTOTAL 2 | 2 414 203 | |
| | FAO Support Costs (4.5% of subtotal 2) | 108 639 | |
| | SUBTOTAL 3 | 2 522 842 | |
| | GFCM Working Capital Fund (3.5% of subtotal 3) | 88 299 | |
| AUTONOMOUS BUDGET (USD) | | 2 611 142 | |

**Contributions to the GFCM budget for 2021
(based on 2016–2018 averages)**

| Contracting Party | CONTRIBUTION | | BASIC FEE | GDP COMPONENT | | CATCH COMPONENT | |
|----------------------|--------------|-------|-----------|---------------|---------|--------------------|-----------|
| | USD | % | USD | Index | USD | Weighted Total* | USD |
| Albania | 28 990 | 1.11 | 11 353 | 1 | 6 134 | 36 077 | 11 504 |
| Algeria | 75 690 | 2.90 | 11 353 | 1 | 6 134 | 182 529 | 58 203 |
| Bulgaria | 17 486 | 0.67 | 11 353 | 1 | 6 134 | | |
| Croatia | 72 688 | 2.78 | 11 353 | 10 | 61,336 | | |
| Cyprus | 72 688 | 2.78 | 11 353 | 10 | 61,336 | | |
| Egypt | 75 132 | 2.88 | 11 353 | 1 | 6 134 | 180 780 | 57 645 |
| France | 134 024 | 5.13 | 11 353 | 20 | 122 671 | | |
| Greece | 72 688 | 2.78 | 11 353 | 10 | 61 336 | | |
| Israel | | | | | | | |
| Italy | 134 024 | 5.13 | 11 353 | 20 | 122,671 | | |
| Japan | 134 024 | 5.13 | 11 353 | 20 | 122,671 | | |
| Lebanon | 20 428 | 0.78 | 11 353 | 1 | 6 134 | 9 225 | 2 942 |
| Libya | 49 111 | 1.88 | 11 353 | 1 | 6 134 | 99 176 | 31 624 |
| Malta | 72 688 | 2.78 | 11 353 | 10 | 61 336 | | |
| Monaco | 11 353 | 0.43 | 11 353 | | | | |
| Montenegro | 12 515 | 0.48 | 11 353 | | | 3 644 | 1 162 |
| Morocco | 36 137 | 1.38 | 11 353 | 1 | 6 134 | 58 488 | 18 650 |
| Romania | 72 688 | 2.78 | 11 353 | 10 | 61 336 | | |
| Slovenia | 72 688 | 2.78 | 11 353 | 10 | 61 336 | | |
| Spain | 72 688 | 2.78 | 11 353 | 10 | 61 336 | | |
| Syria | 19 418 | 0.74 | 11 353 | 1 | 6 134 | 6 056 | 1 931 |
| Tunisia | 146 267 | 5.60 | 11 353 | 1 | 6 134 | 403 865 | 128 781 |
| Turkey | 422 100 | 16.17 | 11 353 | 10 | 61 336 | 1 095 777 | 349 411 |
| EC | 785 627 | 30.09 | 11 353 | | | 2 428 178 | 774 274 |
| 1001494 503 797 | | | | | | | |
| 2 611 142 | | | 261 114 | | 913 900 | | 1 436 128 |

| Total budget | 2 611 142 | USD |
|---------------------------------|-----------|-----------------|
| Basic fee | 10% | of total budget |
| | 261 114 | USD |
| Number of Contracting Parties** | 23 | |
| Total budget less basic fee | 2 350 027 | USD |
| GDP component | 35% | of total budget |
| | 913 900 | USD |
| Catch component | 55% | of total budget |
| | 1 436 128 | USD |

* 2018 data, used for the three years average (2016-2018) for the calculation, have been based on 2017 figures since no values on 2018 were available at the moment of the calculation (September 2019). Therefore CPCs contributions for 2021 will be confirmed in 2020.

** Contracting Parties paying their contributions to the autonomous budget

This report summarizes the discussions held during the forty-third session of the General Fisheries Commission for the Mediterranean (GFCM) and the tenth session of the Committee on Administration and Finance.

During the session, progress in activities related to fisheries, aquaculture, compliance and other strategic activities was reviewed. Moreover, the outcomes of the second GFCM performance review were commented. In relation to the management of fisheries and aquaculture in the GFCM area of application, eight binding recommendations were adopted, dealing with the following issues: the use of anchored fish aggregating devices in common dolphinfish fisheries in the Mediterranean Sea, information on access agreements in the GFCM area of application, the establishment of a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the GFCM area of application, the sustainable exploitation of blackspot seabream in the Alboran Sea and red coral in the Mediterranean Sea, multiannual management plans for turbot fisheries in the Black Sea and sustainable demersal fisheries in the Adriatic Sea, and management measures for sustainable trawl fisheries targeting giant red shrimp and blue and red shrimp in the Strait of Sicily. Furthermore, the Commission discussed issues related to the mandate of the GFCM Executive Secretary.

Finally, the Commission adopted its programme of work for the next intersession and approved its autonomous budget for 2020 and for 2021, amounting to USD 2 611 142 yearly as well as a number of strategic actions to be funded through extrabudgetary resources. It also unanimously endorsed the new Bureaus of the Scientific Advisory Committee on Aquaculture and the Working Group on the Black Sea and agreed to renew the mandate of the Bureau of the Compliance Committee for an additional two years.

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