

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN



COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

GFCM Working Group on the Black Sea (WGBS)

Report of the Second meeting of the ad hoc Working Group on the Black Sea

Varna, Bulgaria, 24-26 April 2013

OPENING, ARRANGEMENT OF THE MEETING AND ADOPTION OF AGENDA

- 1. The Second meeting of the Working Group on the Black Sea was held in Varna, Bulgaria, from 24 to 26 April 2013. The meeting was attended by 23 experts from the Black Sea riparian countries (Bulgaria, Romania, the Russian Federation, Turkey and Ukraine), as well as by representatives of the European Union (EU), the Agreement for the Conservation of Cetaceans on the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) and the GFCM Secretariat. The list of Participants is provided in Appendix B of this report.
- 2. Mr Simion Nicolaev, Coordinator of the WGBS, opened the meeting and greeted participants recalling the creation of the working group at the thirty-fifth session of the GFCM in May 2011 and its thrust. He briefly outlined the important steps reached from then, amongst which the nomination of ad hoc WGBS focal points, with the objective to foster sound cooperation in the area and reach consistent conclusions during the meeting's discussions.
- 3. Mr Dragomir Gospodinov, Executive Director of the Executive Agency for Fisheries and Aquaculture of Bulgaria, welcomed the participants stating it was an honor to organize the second meeting of this WGBS in Varna, given the importance of the meeting for Bulgaria but also for the Black Sea area. He stated that the right momentum for the willingness and openness at the whole Black Sea level to cooperate had come, recalling that many initiatives had already been undertaken but insisting on the need to further find tools for cooperation and foster a common vision for the entire basin, so to take common essential conservation and control measures. He finally expressed his trust and confidence in the meeting to identify key issues for prompt concerted actions in the area and thanked the GFCM Secretariat for the excellent collaboration.
- 4. Mr Fabio Massa, from the GFCM Secretariat, expressed on behalf of the General Fisheries Commission for the Mediterranean and the Black Sea warm thanks to Bulgaria for hosting the meeting and for the impeccable organization. He noted the presence of most Black Sea riparian states as a clear recognition of the importance of the WGBS and underlined the role of the GFCM in promoting, among others, the cooperation in the area in support to the sustainable development of the fisheries and aquaculture sectors. He also recalled the relevance of the first GFCM strategic Framework Programme (FWP) in support the Task Force activities for the modernization of the Commission and referred to the cooperation in the Black Sea as a good example in light of the sub-regional approach being fostered in this frame. He finally deeply encouraged the participants to achieve substantial results during the meeting.

5. Mr Nicolaev chaired the meeting and the GFCM Secretariat undertook the task of reporting. The Agenda was adopted with some changes and is provided in Appendix A.

OVERVIEW OF THE GFCM INTERSESSIONAL ACTIVITIES IN THE BLACK SEA

Main conclusions of the First meeting of the WGBS and the recommendations emanating from the thirty-sixth session of the GFCM with regards to the Black Sea

- 6. After giving an overview of the situation of fisheries and aquaculture in the Black Sea, the Chair detailed the framework under which the WGBS was established and reminded its objectives and terms of references. He outlined the activities carried out by the GFCM in the Black Sea during the intersessional period, including a specific workshop on IUU fishing, training on aquaculture as well as the creation of a dedicated database of experts and institutions, and referred to Black Sea experts participation for the first time in the GFCM stock assessment working groups (WGSAs) as an encouraging achievement.
- 7. He then presented the main recommendations adopted by the GFCM at its thirty-sixth session in May 2012 and their relevance for the Black Sea, including a resolution on Allocated Zones for Aquaculture (AZA) and guidelines for multiannual management plans. He outlined the terms of collaboration of the Memorandum of Understanding (MoU) signed between the GFCM and the Commission on the Protection of the Black Sea Against Pollution (BSC), calling for potential further inputs by the WGBS to strengthen such collaboration, especially under the umbrella of the BSC Advisory Group on the Environmental Aspects of the Management of Fisheries and other Marine Living Resources (AG FOMLR) dedicated to the management of fisheries and other marine living resources.
- 8. He finally recalled the pending decision concerning a set of minimum standards for bottom-set gillnet fisheries for turbot and conservation of cetaceans in the Black Sea and urged for contributions and joint efforts by the WGBS with the objective to bring additional elements for consideration of the Commission at its thirty-seventh session (May 2013).
- 9. The participants noted the good level of implementation of most elements of the agreed WGBS workplan during the intersessional period. It was also noted that the *Review of Black Sea fisheries* presented to the first meeting of the WGBS (January 2012) was a good collection of relevant information on the whole area and that efforts should be continued to complete it so to a have a comprehensive and up-to-date picture of Black Sea fisheries. It was also recalled that the GFCM Scientific Advisory Committee (SAC) had decided to produce a bi-annual report on the status of Mediterranean and Black Sea fisheries and that the WGBS updated *Review of Black Sea fisheries* could serve as contribution to such report.

Fisheries activities

10. Mr Miguel Bernal, GFCM Secretariat, provided a short overview of intersessional activities related to fisheries in the Black Sea, including the conclusions of the WGSAs regarding the assessment of Black Sea species, briefing on the outcomes of the workshop on IUU fishing in the Black Sea and underlining the potential of the database of experts and institutions which could constitute, among other, an opportunity to build momentum within GFCM of information on the expertise of several ongoing fisheries projects in the Black Sea and to consolidate existing cooperation.

- 11. Several issues were highlighted in the ensuing discussions, in particular in relation to the importance of performing coordinated actions to minimize IUU fishing in the area and the need for coordination in relation to training activities for stock assessment.
- 12. Furthermore the importance of the database of experts and institutions in the Mediterranean and Black Sea was underlined and the WGBS stressed that it shall continue to be developed and improved, providing experts the possibility to make their information public and creating a multiple entry search engine in order to facilitate the identification of experts in the different fields and subregions.

Aquaculture activities

- 13. The GFCM Secretariat recalled the main priorities identified and discussed during the first meeting of the WGBS and presented the main aquaculture activities undertaken for the Black Sea during the intersessional period. A training workshop (T/W) on site selection and Allocated Zones for Aquaculture (AZA) was organized in February 2013 for 18 experts from the riparian countries. The T/W produced a synthesis report on the challenges posed by the adoption of AZA and determined a series of initiatives for their implementation.
- 14. An *ad hoc* meeting on *Black Sea aquaculture diversification* shed a light on the current aquaculture status in the region and agreed on a list of potential marine species and farming systems/technologies for a diversification of the sector. In relation to the aquaculture practices in the Black sea, such the case of the turbot, the experiences on and the role of aquaculture for marine fish restocking and stock enhancement—were also discussed and a series of principles related to the conservation of marine biodiversity were identified (i.e. on genetics, environment, technologies, monitoring and assessment) and presented to the WGBS. It was recalled that these aquaculture activities of restocking in the Black sea, involves the release of cultured juveniles of fishes and are aimed to restore fish spawning biomass and to overcomes recruitment limitation. The WGBS agreed to the principles identified for the implementation of fish restocking activities—and—acknowledged the need to define guidelines for marine restocking and stock enhancement considering their potential impacts on the environment, on the wild stocks and on capture fisheries.
- 15. Opportunities and potential of aquaculture for the region were recalled and the WGBS stressed the limited aquaculture development in the majority of the riparian countries thus far. It also suggested that, given the type of investment needed to start-up an aquaculture enterprise and its links with market issues, the availability of demonstration projects and technical documents would be useful to support its development. Some aspects related to the interaction between aquaculture and environment and the importance of quality control for aquaculture products were also raised.
- 16. The WGBS expressed its satisfaction for the outcomes of the aquaculture component and stressed the relevance of this kind of activities particularly for their practical application. It also wished for more future actions and follow-up.
- 17. Furthermore, participants advocated the importance of involvement of more brackish and marine aquaculture experts within the WGBS in light of the specific nature of the issues addressed and considering the scattered information available for each country and at the basin's level. This would also result in strengthened cooperation, together with experience and knowledge sharing especially from those countries more advanced in the sector. Ultimately, this would give continuity to the activity of the WGBS in this sector according to its priorities and workplan.

COOPERATIVE PROJECTS AND INITIATIVES IN THE BLACK SEA

Ongoing projects in the Black Sea

- 18. Mr Bayram Oztürk, GFCM consultant, consultant, outlined on the main regional projects and initiatives in the Black Sea namely namely namely i) CoCoNet, to develop networks of marine protected areas; ii) MISIS, to improve availability of chemical and biological data for integrated assessments of the Black Sea state of environment; iii) CREAM, to coordinate research in support to application of Ecosystem Approach to Fisheries and management advice iv) SEAS-ERA, to constitute a platform for developing a European integrated policy oriented structure v) KnowSeas, to provide practical guidance for the application of the Ecosystem Approach to the sustainable development of European seas; vi) ODEMM, in support to the objectives of the Marine Strategy Framework Directive, the Habitats Directive, the European Commission Blue Book and the Guidelines for the Integrated Approach to Maritime Policy; vii) ComFish, to strengthen the impact of fisheries research and technology transfer and involving different stakeholders groups; viii) REEFS, to improve knowledge for application of artificial reefs to address the organic pollution in the maritime ecosystem; ix) SRCSSMBSF, to strengthen the regional capacity to support the sustainable management of the Black Sea fisheries.
- 19. Some participants also informed that FAO was currently testing the feasibility of implementing a regional project in the area (BlackSeaFish) and it was also considered that could be useful for the WGBS to have additional information on the status of implementation of such initiative.
- 20. Mr Violin Raykov, vice-coordinator of the WGBS, informed the meeting on the EC project on 'Adverse Fisheries Impacts on Cetacean Populations in the Black Sea' (2012-2014). The project aims at i) reviewing national and international legislation for the protection and conservation of cetaceans in the Black Sea, with identification of possible gaps and loopholes or in legislation implementation; ii) collecting new data and reviewing existing information from all coastal States on harbor porpoises, common dolphins, bottlenose dolphins and their interactions with Black Sea's fisheries; iii) implementing cetacean surveys through aerial and boat surveys (also using ferry routes) to assess of cetacean abundance and distribution; iv) identify means to reduce cetacean bycatch in fisheries exhibiting high rates of incidental catches through a critical review of existing literature and preparation of a draft regional strategy.
- 21. Mr Gheorghe Radu, from Romania, gave a detailed presentation on the *SRCSSMBSF* project on *Strengthening the Regional Capacity to Support the Sustainable Management of the Black Sea Fisheries* and stressed that it was aimed at, among other, foster cooperation and sharing advice on management strategies, including aspects on training and develop methods for joint-regional stock assessment for the Black Sea.
- 22. Attention was drawn to the fact that Georgia was not involved in most of the ongoing projects reported to the WGBS. Being a main actor in the area, with an important volume of catches for some of the species for which stocks are considered shared between different riparian countries, it was judged necessary to enhance Georgia's participation in future activities of the WGBS as well as in further common activities in the area.
- 23. The WGBS acknowledged the wide range of issues tackled in these projects, including i) sustainability and management of fisheries, ii) integrated marine protected areas, iii) monitoring of exploited populations and marine ecosystems, and iv) sub-regional cooperation and communication. In particular the WGBS, stressed that, for those joint projects including survey and related to the objectives of the WGBS, effort and should be done by the riparian countries for facilitate the implementation of such scientific surveys and cover their national waters.

24. The WGBS welcomed the advances from the ongoing projects and initiatives presented and expressed the need that relevant outcomes of these activities should be reported to the WGBS, for it to take informed decisions and explore areas of collaboration.

First GFCM strategic Framework Programme (FWP)

- 25. The GFCM Secretariat introduced the GFCM Framework Programme (FWP) (2013-2018), aimed at promoting sustainable development and cooperation through the improvement of capture fisheries and aquaculture in the GFCM area of competence. The FWP, based on multi-annual and multi-donor ad hoc arrangements, is implemented through five work programmes, and a number of actions and activities with donors.
- 26. The activities carried out during the first phase of the FWP were presented, namely: i) testing the feasibility of GFCM guidelines for multi-annual management plans, ii) assessing the impact of IUU fishing, including MCS and regional fleet, iii) defining indicators on the status of exploited marine populations, iv) strengthening data collection in the Mediterranean and Black Sea, v) enhancing the development of artisanal fisheries, and vi) implementing concerted actions for countries upon specific requests. Emphasis was put on those actions that were of particular relevance for the Black Sea and for which activities had already been scheduled and could benefit from further contributions from the WGBS.
- 27. Participants noted several complementarities between some FWP activities being organized and those incorporated within several of the ongoing projects in the area, especially on issues such as training for stock assessment. The WGBS recommended that coordination between similar activities be maximized in order to make the best use of available resources.
- 28. Special attention was given by all participating countries to the topic of artisanal fisheries, especially in view of the first regional Symposium on artisanal fisheries organized by the GFCM for November 2013. It was recalled that artisanal fisheries initiatives in the Black Sea still did not receive the correct support and needed to be strengthened. Considering that the majority of Black Sea fishing fleets is composed of small vessels, defining the current situation and evaluating the impact of coastal fisheries and local stocks was considered essential.
- 29. The Symposium was regarded as a unique opportunity to understand the issues at stake and discuss future activities in the field and for this reason the necessity was underlined to have both Black Sea experts and competent authorities attending, so to efficiently transpose the conclusions back at all involved levels in each country.
- 30. Participants from Ukraine and the Russian Federation mentioned that artisanal fisheries was not clearly defined in their countries and that their national data collection systems did not make a clear distinction between artisanal and non-artisanal fisheries, making it difficult to analyze artisanal fisheries separately from the rest of the fleet.
- 31. It was suggested to produce a review of the state of artisanal fisheries in the Black Sea and to submit it as contribution to the Symposium.

OUTCOMES OF THE FWP WORKSHOP ON FISHERIES DATA COLLECTION IN THE BLACK SEA

- 32. Ms Pilar Hernández, from the GFCM Secretariat, presented the outputs arising from the FWP activities related to the strengthening of data collection in the Mediterranean and Black Sea, which included the organization of dedicated workshops for each GFCM sub-region, including one for the Black Sea (Bulgaria, 22-23 April 2013). She specified that similar gaps and priorities had been identified in each sub-region, amongst which on the one hand i) the complexity of the GFCM Task 1 matrix, ii) the requirement to send all data in one set and iii) the definition of variables not fully clear to experts and on the other hand i) the further improvement of the communication flow between the Secretariat and technical staff at national level and ii) the importance of maintaining permanent focal points.
- 33. In particular, specific issues related to tackling the strengthening of data collection in the Black Sea were identified. Main highlight was given to the importance, complexity and challenges posed by the fight against IUU fishing and to the fact that GFCM databases did do not cover all of the Black Sea, as not all riparian countries were GFCM Members.
- 34. She also presented the draft document, still under development, of the new GFCM Data Collection Reference Framework (GFCM-DCRF) which was regularly enriched and completed with the inputs received from members during each of the FWP sub-regional workshops. Similarly, the points highlighted during the FWP workshop for the Black Sea would be incorporated in next versions of the GFCM-DCRF.
- 35. The WGBS appraised the work done by the Secretariat and endorsed both the procedure followed by the workshop and the main gaps, priorities and issues identified to be included in the GFCM-DCRF.
- 36. The WGBS highlighted the importance that official data validated by the national data collection institution be provided and used in the different analysis performed at GFCM level, including *inter-alia* stock assessment, analysis of fleet capacity and fleet composition. In this regard, a call for speeding the transmission mechanism of official data to the Secretariat was made.
- 37. The WGBS concurred on the circulation to non-GFCM Members of the questionnaire on data collection that had specifically been prepared to support the FWP activities on the strengthening of data collection systems, for it to be completed and submitted to the GFCM Secretariat on a voluntary basis.
- 38. In view of obtaining a complete picture of the situation in the Black Sea, it was suggested that joint efforts could be undertaken within the GFCM/BSC MoU and the work by the BSC / AG FOMLR. In particular, the national report submitted by all riparian states could be a valuable source of information and it was hence proposed that the GFCM Secretariat collaborate with the WGBS focal points towards defining which basic elements could be included in this report, which could be shared by the BSC with the GFCM.

OUTCOMES OF THE JOINT GFCM-BLACK SEA COMMISSION WORKSHOP ON IUU FISHING IN THE BLACK SEA

39. Mr Oztürk informed the meeting about the nature and extent of IUU fishing in the Black Sea, as examined during the GFCM workshop of IUU fishing in the Black Sea held in February 2013. He also presented the multiannual roadmap that had been formulated during the workshop in order to lay the ground for future actions to be taken by the riparian countries together, which includes activities

addressing a number of aspects, such as political and institutional , legal, scientific and technical , socio-economic and educational and Monitoring, Control and Surveillance (MCS) .

- 40. The WGBS referred to IUU as a very relevant issue for the area, given that it affects the livelihoods of coastal communities and the sustainability of stocks. Special reference was made to the fact that more information on IUU catches is required to improve the assessment of the status of main fish stocks in the Black Sea. Furthermore, it was mentioned that more active collaboration with enforcement agencies, such as Interpol, could be foreseen with the same objective of better characterizing and minimizing IUU fishing in the basin.
- 41. The WGBS endorsed the general conclusions and the work undertaken by the GFCM workshop on IUU fishing in the Black Sea. It reviewed each proposed action in the roadmap and decided on how to operationalize and prioritize them. A revised version of the roadmap including these comments is reproduced in Appendix C. The most relevant short term actions identified were incorporated into the activities of WGBS workplan as presented in this report.

FWP ACTIVITIES FOR THE FEASIBILITY OF IMPLEMENTATION OF MULTIANNUAL MANAGEMENT PLANS IN THE BLACK SEA

Status of the main fishery stocks in the Black Sea

- 42. The GFCM Secretariat described the status of the Black Sea (GSA 29) stocks assessed during the WGSAs and validated by the SAC: sprat, (*Sprattus sprattus*) was considered to be under moderate exploitation rate and sustainably exploited, spiny dogfish (*Squalus acanthias*) and turbot (*Psetta maxima*) to be overexploited and subject to overexploitation, and whiting (*Merlangius merlangus euxinus*) to have an uncertain status between fully exploited or in overfishing. The horse mackerel (*Trachurus mediterraneus ponticus*) stock assessment was presented to the WGSA but considered preliminary and no advice was provided by the SAC.
- 43. Several methodological issues in relation to stock assessment in the area were highlighted, the main ones being: i) problems with the identification of stock boundaries, ii) problems in the input data used for assessment, including ageing problems and reliability of catch estimates, iii) insufficient reliable fisheries independent surveys in the Black Sea to cover all main species, iv) problems with the assessment models used, and v) outdated time series. In relation to the latter, it was highlighted that all stock assessments were undertaken with data until 2010 only, which especially for small pelagic species undermined the capability of providing advice on the current status of the stocks.
- 44. In addition to these, other recommendations on harmonizing management measures and data collection systems were done at the WGSA, including the need for regional management measures to reduce fishing mortality for dogfish, due to its highly migratory characteristics, and the need for harmonization of sampling methods and scientific surveys for whiting.
- 45. For the case of turbot, a comparative description of management measures in place and reported to the WGSA through the Stock Assessment Forms was also presented: Turkey, Bulgaria and Romania reported to have a common minimum mesh size for gillnets of 400 mm (measured between 3 knots), and a common minimum landing size of 45 cm (standard length), in line with the measures proposed in the pending decision. The management rules in Ukraine presented different reference units, minimum mesh size being 180 mm (measured between 2 knots) and minimum landing size being 35 cm (standard length).
- 46. Ms Olga Vilkhova informed the WGBS that in Russian Federation minimum mesh size in place for turbot gillnet fisheries is 240 mm (between 2 knots), which is about 500 mm.

- 47. Mr Antonio Cervantes, from the EU, presented an update of the status of sprat, anchovy, turbot, spiny dog fish and whiting as assessed by the EU Scientific, Technical and Economic Committee for Fisheries (STECF), using data on the fisheries up to 2011. Status of turbot and spiny dogfish is regarded as the same as in the WGSA advice, although with the extra warning that turbot stock is considered to be severely depleted, while sprat and whiting are considered to be subject to overfishing in relation to F_{MSY} . Anchovy in the Black Sea is also considered to be also subject to overfishing in relation to F_{MSY} . Similar methodological issues as those raised by WGSA were also pointed out, especially the paucity of fisheries independent surveys and the lack of fisheries independent estimate of recruitment.
- 48. Mr Ali Cemal Gücü presented a detailed work on the assessment of anchovy in Turkish waters, including both fisheries (catches, distribution of ages and lengths, etc.) and survey (distribution, abundance, etc.) information. Several management efforts to reduce fishing capacity were highlighted, such as reduction of fishing activity hours, seasonal and spatial closures and buyback of fishing vessels over 12 m. Several methodological issues on the assessment of the stock were highlighted, including: i) the environmentally related migratory behaviour of the species, ii) the potential lack of reliability of catches of small-sized anchovy due to discards below minimum landing size, and iii) the subsequent problems of age-structured assessment models due to the low amount of information on abundance by age in the catches. Preliminary estimates of biomass and fishing mortality based on biomass models were presented, all pointing to the stock being overexploited and subject to overfishing in relation to MSY related reference points.
- 49. The delegates of Ukraine considered the assessments of stocks of anchovy, horse mackerel and dogfish made by the STECF unreliable, as they consider that age structure data used are unreliable, especially for the case of anchovy due to the short life cycle and high reproductive capacity.
- 50. They also, pointed out to the importance of environmental issues, especially on small pelagic fisheries, but also on demersal ones. Stock biological properties are largely affected by hydrodynamics and climate, with a large dependency of distribution of fish and catches on large and small-scale hydrodynamics features, and therefore they called the WGBS to put more attention to environmental issues.
- 51. Furthermore, in relation to the advice on the status of turbot stock, the delegates of Ukraine considered that at least three stock units have been identified based on previous scientific studies: one unit covering the waters of Bulgaria, part of Romania and Turkey waters, and a second, larger, stock unit distributed in the North-Western part of the Black Sea, with the core of the unit located off Ukrainian coast. The analysis done at STECF combined catches from the western and eastern part of the Black Sea, which encompasses different stock units with contrasting signals. The delegates informed the WGBS that analysis done with Ukrainian catch data alone show a slight positive trend in estimated biomasses (ranging between 7 10 thousand t), confirmed also by Ukrainian trawl surveys in 2001-2007 (ranging between 8.5 10.5 thousand t). The Ukrainian delegates informed that there is a Total Allowable Catch (TAC) system in place in Ukrainian waters for the last 15 years, developed in the YugNIRO, and based on the following reference points: F0.1 = 0.14; Fspa = 0.2 * F0.1, where Fspa is the recommended fishing mortality level to which stock recovered is provided. The TAC system is believed to be enough to allow the stock to slowly recover, despite the high levels of IUU fishing which are believed to be in place for the area.
- 52. Mr Raykov highlighted that despite the doubts on the status of sprat, there are significant scientific indications that a reduction in landing length for sprat in the Black Sea is taking place. The somatic reduction could be due to various reasons but indicates some stress on the stock. A dedicated study should be launched in view of revealing the reasons for that phenomenon and to avoid a risk of recruitment overfishing, paying special attention on the nursery grounds in the nearshore zone of the riparian countries.

- 53. The WGBS recognised that some differences existed between the different assessments of the same stocks presented to the WGBS. For the cases of turbot and spiny dog fish the WGBS agreed on the advice provided by SAC on the Black Sea stocks being both overexploited and subject to overexploitation. However, the WGBS recognised that some uncertainties in stock unit for turbot existed, and therefore the overall status of turbot population in the Black Sea may not reflect the status of different stock entities. For the case of sprat and whiting the WGBS concluded that there were uncertainties in the status of the stock, which could be either subject to full or overexploitation. For the case of anchovy, the assessment was considered preliminary, although the stock seemed to be subject to unsustainable fishing pressure.
- 54. The WGBS recommended that actions shall be taken to incorporate the most recent data available into the assessment of main stocks in the Black Sea, and identified a number of priority topics to be tackled during the intersessional period and analysed by the GFCM Sub-regional Group for Stock Assessment in the Black Sea, to be convened in autumn 2013.
- 55. In relation to improve the fisheries independent data available for main stocks, the WGBS recommends that a discussion on how to improve survey coverage, for example by harmonizing and synchronizing survey methods and survey periods and sharing of results, shall take place, in order to be able to have accurate information on the distribution and abundance of main species on a regular base. A workshop to propose common survey methodologies to improve abundance and distribution estimates was recommended.
- 56. The WGBS also recommended that all information regarding ageing, including ageing protocols and training material, for the species of the main stocks in the Black Sea be collected, with the possibility to organize a workshop on age reading for specific species in the medium term (2014-2015). On this regard it was recalled that a manual on age reading of elasmobranchs was under preparation after the workshop organised by the GFCM in Turkey in October 2012.
- 57. The WGBS noted with satisfaction the standardization of measures for turbot gillnet fisheries. Taking into account the different reference units used in the measures in place in Turkey, Bulgaria and Romania with those used in Ukraine and Russian Federation, the final management rules are considered to be very similar and therefore, the experts from Ukraine considered that further harmonization was not required. Differences in temporal bans taking by the different countries were discussed to be related to biological characteristics (migration, distribution, etc.), although further information was recalled. Participants mentioned that further analysis of the implications of the different reference units and, if needed, further actions could be discussed within the context of a harmonised management plans.
- 58. In addition to these technical measures, the WGBS urged for the need to assess and mitigate the impact of gillnet fisheries of turbot and spiny dogfish on cetaceans.

Strategy for the testing phase on the implementation of multiannual management plans in the Black Sea

59. Mr Bernal presented the general concepts, objectives and procedure to establish sub-regional multiannual management plans, following the principles given by FAO general framework for management plans and the 2012 GFCM guidelines for sub-regional multiannual management plans. Also, he presented the methodology followed in the first phase of the GFCM FWP action to test the feasibility to implement the GFCM guidelines in concrete case studies through the Mediterranean and Black Sea. A first example on the advances for the case of small pelagic fisheries in the Adriatic Sea was detailed, including the contents of the propose *Background Technical Document in Support of a Management Plan for Small Pelagic Fisheries in the Adriatic Sea*, agreed as a milestone in moving towards a management plan for this fisheries.

- 60. He also presented the second phase of the action, which aims to identify case studies for testing the feasibility of implementing the GFCM guidelines in different regions of the Mediterranean Sea and in the Black Sea. For the case of the Black Sea, the proposed case studies already identified are turbot fisheries and small pelagic fisheries. A questionnaire to collect information and views from all countries in the Black Sea will be distributed and a workshop to discuss on the issue is planned for autumn 2013.
- 61. The WGBS highlighted the importance of taking steps towards establishing management plans in the region, including inter-alia to facilitate the setting up of common management rules and to ensure sustainability of exploitation of fishery resources in the Black Sea.
- 62. The WGBS endorsed the selection of turbot (as a first priority) and small pelagic fisheries (as a second priority) fisheries as case studies for testing the feasibility of implementing the GFCM guidelines for management plan in the region.
- 63. The EU delegate presented the EU proposal to resubmit the pending decision on common turbot management measures for the Black Sea and conservation measures to minimize impact on gillnet fisheries in cetaceans The technical measures on mesh size and minimum landing size are those already adopted by Turkey, Romania and Bulgaria, while the measures to mitigate cetaceans bycatch refer to the materials used in the construction of the nets.
- 64. The WGBS supported the resubmission of the proposal for the consideration of the Commission, and also recommended that further work from SAC could be performed to continue promoting technical measures to minimize by-catch of cetaceans and other species from main fisheries in the area.

COOPERATION OF THE WGBS/GFCM WITH AGFOMLR/BSC

65. The Chair detailed the activities foreseen in the frame of the BSC Advisory Group and referred to potential collaboration with the WGBS in this frame. The WGBS agreed to collaborate in priority activities defined by the AG FOMLR, in particular those dealing with the identification of indicators for the evaluation of the good environmental status within the third BSC assessment process, on which the GFCM was also involved. Enhanced collaboration towards the preparation of a first list of shared and migratory species and on the evaluation of outcomes and identification of synergies amongst research projects operating in the Black Sea was also advocated.

GFCM-ACCOBAMS PROJECT PROPOSAL ON CETACEANS, SEA TURTLES, SEABIRDS AND OTHER THREATENED SPECIES BY-CATCH, AND DEPREDATION REDUCTION IN THE BLACK SEA FISHERIES

- 66. Ms Célia Le Ravallec, from ACCOBAMS, presented the project proposal to be developed jointly by ACCOBAMS and GFCM in order to provide a detailed assessment of the extent of by-catch of cetaceans and to propose technical and management solutions to reduce adverse interactions between cetaceans and fisheries through case pilot studies. It will also aim to (a) expand and improve data collection, especially on technical characteristics and practices responsible of impacts on marine mammals, (b) increase the awareness of fishers and (c) include some case studies where mitigation measures should be urgently applied. The ultimate goal of the project will be to strengthen national and international relevant legislations and to develop strategies on marine mammals by-catch and depredation reduction to mitigate the negative impacts generated by such interactions.
- 67. Ms Le Ravallec invited the WGBS to identify case studies that could be included in the project proposal and to explore possible sources of funding.

68. The WGBS welcomed the project proposal presented by ACCOBAMS and mentioned that the issue of bycatch was a priority topic in the area. The pending recommendations for the material used in gillnet fisheries to reduce cetaceans bycatch were mentioned as an example. The WGBS proposed that the case study of gillnet fisheries could be of special relevance, and also mentioned that for the specific case of turbot gillnet fisheries any research on bycatch by this fisheries would be important to advance in setting up future management plans.

GENERAL CONCLUSIONS AND RECOMMENDATIONS

69. On the basis of the discussions held and with the objective to further support the sustainable development of fisheries and aquaculture in the Black Sea, the WGBS reached the following conclusions and recommendations:

Conclusions related to fisheries

- In relation to the status of Black Sea stocks:
 - Turbot and spiny dogfish stocks in the Black Sea are both overfished and subject to overfishing;
 - The situation of sprat, whiting and anchovy is uncertain, as different conclusions based on different time series were found in previous meetings. However, all these stocks are believed to be either fully or overfished;
 - For the case of turbot, the WGBS discussed that there might be different stock entities (i.e. different stocks or different stock units) in the Black Sea and that therefore the overall status of turbot in the Black Sea may not be representative of the status of the different stock entities.
- In relation to methodological issues to be tackled by the riparian countries, then addressed during the next GFCM working group on stock assessment in the Black Sea, the following were identified:
 - Identification of stock boundaries and stock units for turbot, and whiting and migration patterns for spiny dogfish, anchovy and horse mackerel;
 - o Improvement and harmonization of basic data available for assessment, including age readings, catches, biological parameters and others;
 - o Incorporation of estimates of by-catch and IUU into the catch estimates;
 - o Incorporation of environmental issues into the assessment of stocks;
 - o Improvement of assessment models used.
- In relation to the management of stocks, the WGBS supported that the pending decision concerning a set of minimum standards for bottom-set gillnet fisheries for turbot and conservation of cetaceans in the Black Sea be resubmitted for the consideration of the 37th session of the GFCM (May 2013).
- In relation to the FWP data collection and governance activities carried out in 2013:
 - The WGBS endorsed the actions taken towards strengthening data collection and data submission systems, including incorporating identified priorities, issues and gaps in the GFCM DCRF;
 - The WGBS endorsed the roadmap for testing the feasibility of the GFCM guidelines on multiannual management plans. The WGBS supported the use of turbot gillnet fishery as a case study for the action in the Black Sea.

• The WGBS supported the operationalization of the GFCM/BSC Memorandum of Understanding through enhanced cooperation with the BSC Advisory Group on Environmental Aspects of Management of Fisheries and Other Marine Living Resources (AG FOMLR).

Recommendations related to fisheries

- Reduce fishing mortality for turbot, spiny dogfish, and sprat.
- Not to increase fishing mortality for whiting and anchovy.
- The most updated and detailed data to improve the assessments of main stocks in the Black Sea shall be made available to the GFCM Sub-regional Group on stock assessment for the Black Sea.
- Implement the roadmap to fight IUU fishing in the Black Sea on the basis of the comments and priorities provided by the WGBS (Appendix C).
- Collaborate with the BSC/AG FOMLR, including *inter alia* by i) elaborating a list of preliminary fishery indicators and targets to be included in the fishery component of the new Black Sea Integrated Monitoring and Assessment Programme (BSIMAP) that should be reported by riparian states, ii) updating of the template of the BSC/AG FOMLR national report on the status of fisheries and other living marine resources and iii) establishment of the biological safety limit for the selected fish stocks. With these objectives, a work program could be incorporated in the current GFCM/BSC MoU
- Advance towards the design of fisheries independent surveys that cover the whole area of distribution for the main demersal and small pelagics in the Black Sea.
- Compile the existing information on data collection systems for all riparian States in accordance with applicable international and national laws.
- Facilitate, at national level, that scientific surveys incorporated in different ongoing projects and related to WGBS objectives could cover national waters of the different riparian States.
- Update the available information on fisheries in the Black Sea, including i) fleet and effort information, ii) catch information, iii) biological data and iv) ongoing research, and contribute to the GFCM bi-annual report on the status of Mediterranean and Black Sea fisheries.

Recommendations related to aquaculture

- Further promote the implementation of Allocated Zones for Aquaculture at national level to support the development of responsible aquaculture in the region. An additional effort should be done in this regard in terms of national capacity building, through coordination among the different authorities involved in aquaculture procedures;
- Foster scientific cooperation on aquaculture activities, including trainings on specific subjects (recirculation systems, techniques, marketing, legal aspects, health and safety, animal welfare and handling, production management, good practices, zoning).
- The activities of fish restocking and stock enhancement purposes with cultured marine juvenile (i.e. turbot or other farmed species) into wild population in the Black sea should take into account a "responsible and precautionary approach" and a series of principle linked to

the conservation and marine biodiversity. These principles should also be accompanied by specific indicators to monitor the sustainability of such activities.

These activities of fish restocking or stock enhancement purposes should take into consideration, *inter alia*, the following:

- Restocking activities should be accompanied by technical programme activities and should be species-specific;
- o Restocking programmes with non-native species should be avoided;
- The origin of the broodstock for production of juvenile should be based on specimens coming from local populations; and accompanied by genetic and environmental impact assessment evaluation
- The activities of restocking should be based on the best aquaculture knowledge; assessment of the wild stock and a good knowledge of biology and ecology of the species should be considered;
- These should be supported by research activities, including a management and monitoring programme;
- The size of fingerlings to be released in the environment must be appropriate to ensure a high survival rate and avoid domestication;
- The quality of the fingerlings to be stocked should be fish wild-like type and the specimens should be guaranteed as pathogen free;
- The restocking activities should be very accurate and the environmental condition known;
- A tagging programme is considered appropriate or suggested when restocking activities are in close cooperation with fishermen for recapture and monitoring; such programme considers the involvement of the fishermen on the catch result analysis;
- When the programme of fish restocking is referred to shared stocks, it should consider a scientific cooperation among the different institutions.
- Preparation of specific technical documents and activities including, among others, socio
 economic aspects and market-related issues in order to promote the investment on aquaculture
 activities from the private sector. This could also be supported through the implementation of
 pilot demonstrative centres, developed on the basis of existing positive experiences in the
 area.
- Improve the information on aquaculture data statistics and production centres in the area.

Common issues

- The Database of Mediterranean and Black Sea experts and institutions shall continue to be developed and improved, providing experts the possibility to make their information public and creating a multiple entry search engine in order to facilitate the identification of experts in the different fields and sub-regions.
- The main results of ongoing projects in relation to the WGBS objectives should be presented to the WGBS. In turn, the WGBS could facilitate that such activities of interest carried out in the various ongoing projects are coordinated.
- The GFCM glossary should be further divulgated to the participants of the WGBS

TENTATIVE PROGRAMME OF WORK FOR 2013-2014

70. On the basis of the priorities identified, the WGBS suggested to carry out the following activities:

Fisheries

- ➤ Elaborate a catalogue of fishing gears and vessels types used in the Black Sea, including the relative importance of the different types of gears used by the fleets
- Finalize the inventory of the existing legal instruments related to fisheries in riparian countries of the Black Sea
- Prepare a review of the status of artisanal fisheries in the Black Sea to be presented to the First Regional Symposium on Artisanal Fisheries (November 2013)
- ➤ Update the *Review of the status of Black Sea fisheries*, completing it with existing information related to fisheries activities and status of the stocks.

On data collection:

- Circulate the GFCM –FWP elaborated questionnaires for the description of data collection systems to non GFCM members
- > Contribute to the updating of the template of the BSC/AG FOMLR national report by including elements proposed by the GFCM SAC subcommittees on stock assessment and on statistics and information
- > Propose a list of priority stocks and collect information on those stocks from all riparian countries, including on the estimated impact of IUU fishing on those stocks, in view to perform a joint assessment exercise
- > Identify training activities in the field of data collection/processing/analysis/sharing

On technical issues related to management:

Explore and propose ways to continue harmonizing the existing technical management measures among the riparian countries, with a view to propose a workshop on the issue for the next session of the WGBS.

Aquaculture

- > Prepare guidelines on responsible activities for fish restocking and stock enhancement purposes
- > Finalize the inventory of marine and brackish aquaculture farms and production centers in the Black Sea area
- Elaborate a programme for a pilot study for aquaculture projects including the implementation of demonstrative centers to promote sustainable aquaculture in the area
- Continue to support the countries in the implementation of AZA, also through the preparation of specific project proposals for this support (training, capacity building, etc.)

71. The following meetings were scheduled:

Title	Date / Venue
Workshop for the definition of common protocols and methods for surveys in the Black Sea.	January-February 2014 / TBD
Third meeting of the WGBS	Before SAC 16/ Trabzon, Turkey

- 72. The sub-regional group on stock assessment for the Black Sea (organized back-to-back with training on direct and indirect stock assessment methodologies), already scheduled to be held in Bucharest, Romania, was recalled to the meeting who decided to hold it from 14 to 18 October 2013.
- 73. The convening of the already scheduled workshop to test the feasibility of implementing multiannual management plans in the Black Sea was also recalled. The WGBS convened it should be held in November/December 2013.

WGBS ORGANIZATIONAL MATTERS

- 74. Following the temporary nominations of focal points at the first meeting of the WGBS (January 2012), the Chair acknowledged the new focal points nominations for Russian Federation and Turkey and confirmed the nominated ones for the other countries. Georgia being absent, the focal point proposed during the first meeting was maintained but it was suggested that the Chair would keep on making efforts to obtain a formal nomination as done for the other countries.
- 75. The WGBS focal points were confirmed as follows:

Bulgaria: Konstantin Petrov
Georgia: Vakhtang Gogaladze
Romania: Gheorghe Radu
Russian Federation: Olga Vilkhova
Turkey: Ilhan Aydin

Ukraine: Vladyslav Shlyakhov

- 76. Considering the specialized nature of the aquaculture component of the WGBS, the need to identify aquaculture experts in each country in order to provide valuable inputs and contributions on the WGBS aquaculture activities was highlighted. It was hence decided that each WGBS focal point would be in charge of coordinating the tasks with relevant aquaculture experts at national level and that the WGBS should have a second vice-coordinator with specific expertise and knowledge on aquaculture in Black Sea area.
- 77. The second vice-coordinator would be responsible in collaboration with the GFCM Secretariat for ensuring the necessary follow-up of the aquaculture activities and for coordinating the participation of aquaculture experts to the meetings of the WGBS.
- 78. Mr Ilhan Aydin, from Turkey, was unanimously nominated as second vice-coordinator, pending endorsement by the Commission at its thirty-seventh session.
- 79. It was recalled that continued close collaboration between the coordinator, vice-coordinator, the focal points and the GFCM Secretariat would be key to successfully achieve WGBS objectives.

ANY OTHER MATTER

- 80. The WGBS thanked Bulgaria for the warm hospitality and the impeccable conditions for the holding of the meeting were repeatedly acclaimed by all participants.
- 81. The WGBS regretted the absence of Georgian participants at this important meeting and expressed the wish to have them in future meetings of the WGBS.
- 82. The active participation of non GFCM members to the meeting was praised as it considerably helped towards the concerted management of fisheries and aquaculture in the area. The Chair was thanked for its efforts in guiding the meeting and the WGBS in general to its fruitful achievements. Gratitude was also expressed for the tireless work of the GFCM Secretariat.
- 83. The EU delegate reiterated his appreciation and stated that the WGBS was reaching sound results and building concrete milestones for future accomplishments.
- 84. The delegate from Ukraine thanked for the invitation to take part in the WGBS and joined the other participants in praising the Secretariat and the Chairman. He expressed his satisfaction for the useful discussions held during the meeting, of which he recognized the importance for the fisheries and aquaculture in the Black Sea.

DATE AND VENUE OF THE THIRD MEETING OF THE WGBS

85. It was agreed that the third meeting of the WGBS should be held before the Scientific Advisory Committee of the GFCM. The WGBS welcomed the kind proposition by Turkey to host the meeting in Trabzon. Exact dates and venue would be determined at a later stage.

ADOPTION OF THE REPORT

86. The meeting formally adopted the conclusions, recommendations and workplan for the WGBS on Friday 26 April 2013. The full report was adopted by e-mail on 21 May 2013.

Agenda

- 1. Opening, arrangements of the meeting and adoption of the agenda
- 2. Overview of the GFCM intersessional activities in the Black Sea
- 3. Cooperative projects and initiatives in the Black Sea
 - 3.1 Introduction to the background documents (including FAO projets; EU fisheries projects; ComFish, CBC SRCSSMBSF, CREAM etc.
 - 3.2 Introduction to the first GFCM Framework Programme (FWP)
 - 3.3 Other
- 4. Outcomes of the FWP workshop on fisheries data collection in the Black Sea
- 5. Outcomes of the joint GFCM-Black Sea Commission Workshop on IUU fishing in the Black Sea
- 6. Introduction of the first GFCM Framework Programme (FWP) for testing the implementation of multiannual management plans in the Black Sea
 - 6.1 Status of the main fishery stocks in the Black Sea
 - 6.2 Strategy for the testing phase on the implementation of fishery multiannual plans in the Black Sea
 - 6.3 Other
- 7. Cooperation of WGBS/GFCM with AGFOMLR/BSC in the frame of the existing Memorandum of Understanding
- 8. Introduction of a draft GFCM-ACCOBAMS Project on the interactions between fisheries and cetaceans, sea turtles, seabirds and other threatened species, and depredation reduction in the Black Sea
- 9. General conclusions and recommendations
- 10. Tentative programme of work for 2013-2014
- 11. WGBS organizational matters
- 12. Any other matter
- 13. Date and venue of the third meeting of the WGBS
- 14. Adoption of the report

Appendix B

List of participants

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Appendix C
Roadmap on fighting IUU fishing in the Black Sea, including WGBS comments (underlined and in italics)

ASPECTS TO BE ADDRESSED	PROPOSED ACTIONS TO FIGHT IUU FISHING IN THE BLACK SEA	OBJECTIVES/METHODOLOGY
Political and Institutional Aspects	Political will of the six Black Sea riparian States will be needed at one point to tackle IUU fishing	To address IUU fishing in any future relevant document to be discussed and agreed upon by the six Black Sea riparian States
	Strengthen mechanisms to facilitate cooperation and coordination among Black Sea riparian States, including through existing international and regional agreements, and encourage governments to integrate their body of law (also see Appendix E) to harmonize fisheries regulations and laws	Efforts to fight IUU fishing in the Black Sea should depart from the implementation of existing measures. Black Sea riparian States should more promptly cooperate with existing international and regional agreements
Legal Aspects	Develop a regional plan of action to fight IUU fishing and related activities in the Black Sea Elaborate an inventory of the existing legal instruments	The lack of common rules shared by Black Sea riparian States, coupled with the joint dimension of the problems posed by IUU fishing, calls for the elaboration of a regional plan of action to fight IUU fishing tailored for the Black Sea. This could be done on the basis of the FAO IPOA-IUU/other relevant instruments
	Elaborate a regional strategy to regulate small scale fisheries in the Black Sea Prepare a background document about the importance of Artisanal Fisheries for the next Symposium in October 2013	Small scale fisheries account for important share of the fish caught in the GFCM Area. They have a huge value, also cultural, and have often been overlooked by policy making, including in the Black Sea. Black Sea riparian States are invited to actively participate in the first GFCM Workshop on Sustainable Artisanal Fisheries (Malta, October 2013) and report there on salient aspects of this sector. Also, they are invited to attend the FAO Technical Consultations to be held in May 2013 (Rome)

ASPECTS TO BE ADDRESSED	PROPOSED ACTIONS TO FIGHT IUU FISHING IN THE BLACK SEA	OBJECTIVES/METHODOLOGY
Scientific Aspects	Develop and agree on standard methodologies to evaluate illegal, unreported and unregulated catches in support of stock assessments	Species to be considered are anchovy, horse mackerel, sprat, sturgeon, spiny dogfish, turbot and whiting. A collection of existing studies would be necessary as a basis for the work
	Inventory of data collection frameworks existing at national level Propose to circulate the questionnaires for data collection to the non GFCM members (In collaboration with BSC).	Because data collection is limited in scope and national systems in the Black Sea region lack harmonization, existing gaps and needs should be appraised. The inventory should be carried out within the remit of those GFCM Framework Programme actions relating to data collection (Varna, Bulgaria, April 2013)
	Provide technical assistance to strengthen capacity in the domain of data collection/processing/analysis/sharing <u>Identify training activities for the next WGBS meeting.</u>	Consider the possibility of endowing the BSC and the GFCM with efficient and reliant data submission systems through technical support to Black Sea riparian States
	Strengthen national statistical systems of Black Sea riparian States, including through the elaboration of common formats for reporting of data and establishing regional common database The replies to the questionnaires should be considered first by the AGLFOMR and secondly by the SCSI meetings.	Ad hoc measures should be identified (e.g. separate landings of sprat from those of anchovies) and referred to the ongoing actions relating to data collection within the remit of the GFCM Framework Programme. Focal points of Black Sea riparian States should work together, including by sharing software employed by their fishing vessels, and use as reference point existing statistical frameworks
	Promote scientific research in the Black Sea through FAO Regional Projects (e.g. BlackSeaFish), the GFCM Framework Programme and any other relevant project	Existing initiatives should be pursued in order to build up regional undertakings in the scientific domain
	Results of ongoing Projects should be reported to the WGBS, which can facilitate identifing priorities for further actions.	

ASPECTS TO BE ADDRESSED	PROPOSED ACTIONS TO FIGHT IUU FISHING IN THE BLACK SEA	OBJECTIVES/METHODOLOGY
Technical Aspects	Elaborate a catalogues of fishing gears and vessel types used in the Black Sea The WGBS has been informed that a new book is being published by October 2013 which includes a chapter on fishing gear in Black Sea. (countries Initiatives). Find complementarity if any with the proposed catalogue. Ensure that the GFCM catalogue includes in the possible additional information could include statistics of the different type of gears used by the different fleet segments.	Available information should be collected by Black Sea riparian States and the GFCM could be the repository of this information
	Scientific studies on selectivity should be collected. On the basis of gaps identified in the studies, further papers should be drafted	Particular attention should be given in studies to the implications for reducing by catch, particularly of cetaceans, and discards. The positive and negative implications of monofilaments should be considered
	MPAs have to be properly managed according to existing rules in place in the Black Sea. Further studies should be carried out to assist States in establishing MPAs in the Black Sea Establish a Fisheries Restricted Area in the longer term	A network of MPAs in the Black Sea should be established and Black Sea riparian States should consider the creation of Fishing Restricted Areas through GFCM, where necessary
	Study the mitigation of the impacts of IUU fishing on cetaceans	In view of mitigating the impacts of IUU fishing on cetaceans, a project should be launched under the auspices of ACCOBAMS, BSC and the GFCM
	Standardization of the following instruments of management in the Black Sea would be required: fishing seasons, fishing areas, minimum length size of priorities species, registering and marking of fishing gears, technical specifications for mesh size, mitigation of by-catch	Under the guidance of the GFCM Working Group on the Black Sea, Black Sea riparian States should elaborate recommendations on the basis of relevant technical elements for the States to adopt. Other potential fora should be also considered

ASPECTS TO BE ADDRESSED	PROPOSED ACTIONS TO FIGHT IUU FISHING IN THE BLACK SEA	OBJECTIVES/METHODOLOGY
	and banning or progressive reduction of discards The Working Group in collaboration with BSC should dedicate some effort to propose ways of harmonizing the existing measures among the riparian countries	
	Perform joint stock assessments of priority species The first Working Group on stock assessment for the black sea will be organized in Oct-Nov 2013 together with some training sessions. It is suggested that this first exercise will be for shared stocks. An effort has to be done to collate information from different countries on a limited number of priority species (turbot, sprat, anchovy and whiting) and to be prepared in advance to perform this joint assessment exercise.	Black Sea riparian States, including through the FAO and UNEP, should seek funding opportunities to support research in the Black Sea. The results of stock assessments performed for priority species should be brought to the GFCM Working Group on Stock Assessment, the GFCM Sub Committee on Stock Assessment and the BSC
	Carry out joint surveys at sea (demersal and small pelagic species) Prepare a cooperation programme for extending the current survey protocols being carried out at present to the other countries.	Launch common initiatives, including through the FAO/GFCM framework, for the direct evaluation of the status of the priority species
	Awareness campaigns for the protection of Black Sea fisheries against IUU fishing should be launched	A network of relevant actors in the Black Sea should be established to raise awareness. The establishment of a network of experts through the BSC and the GFCM could be instrumental to this action
Socio-economic and Education Aspects	Facilitate the development and involvement of NGOs, professional associations and the civil society in the management of Black Sea fisheries	The current lack of participation of NGOs should be considered by Black Sea riparian States and their contribution to the conservation of the Black Sea ecosystems and the sustainable use of their living resources could benefit from their involvement

ASPECTS TO BE ADDRESSED	PROPOSED ACTIONS TO FIGHT IUU FISHING IN THE BLACK SEA	OBJECTIVES/METHODOLOGY
	Invite the public opinion not to criminalize the fishery sector as a whole because of some IUU practices	The alarming recourse to violence in relation to IUU fishing activities in the Black Sea has to be duly addressed. Black Sea riparian States should endeavor to promote the positive role of fisheries
	Promote sustainable aquaculture activities	Opportunities for the development of aquaculture in the Black Sea should be sought. The GFCM, through its CAQ, and EIFAC, could cooperate to assist Black Sea riparian States
MCS related Aspects	Improve market control and traceability mechanisms and take measures to minimize the trade of IUU products	A deterrent system to fight IUU fishing would have to ensure that controls are performed from the net to the plate. Work done by the FAO and the GFCM could be taken into account as well as the requirements by EU regulations. Market related measures should be developed, departing from the IPOA IUU of the FAO
	Joint adaptive inspection schemes and national observer programmes have to be envisaged	Coordination among controlling organs operating at regional level (e.g. coast guard, border guards and financial police) would have to be pursued, including through the existing regional network of coast guards in the Black Sea
	Carry out joint training of fisheries inspectors and other enforcement authorities	Common training based on best practices on controls in the six Black Sea riparian States should be organized. The GFCM could organize training sessions with the cooperation of the EU (European Commission and if so agreed, the European Fisheries Control Agency)
	Reinforce MCS and develop cost effective options to that end	Facilitate, through competent organizations, technical assistance and capacity building opportunities for the control of fishing fleets, including through VMS, in the Black Sea