GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

# SCIENTIFIC ADVISORY COMMITTEE (SAC)

# Report of the First meeting of the *ad hoc* Working Group on the Black Sea

# Constanta, Romania, 16-18 January 2012

## OPENING, ARRANGEMENT OF THE MEETING AND ADOPTION OF AGENDA

1. The "First meeting of the *ad hoc* Working Group on the Black Sea" was held at the National Institute for Marine Research and Development *Grigore Antipa* in Constanta, Romania, from 16th to 18th January 2012. The meeting was attended by 48 experts from the Black Sea riparian countries (Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Ukraine), as well as by representatives of the European Union (EU), the Black Sea Commission (BSC), the Community Control Fishery Agency (CFCA), the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC), EUROFISH, FAO and the GFCM Secretariat. The list of Participants is provided in Appendix B of this report.

2. Mr Simion Nicolaev, Director of the National Institute for Marine Research and Development *Grigore Antipa*, welcomed the participants stating it was an honor to organize the First meeting of this Working Group in Constanta, given the importance of the meeting not only for Romania but also for the whole Black Sea area. He underlined the need to start a real cooperation in the region under this GFCM initiative, which is a great opportunity to further develop the GFCM experience into the Black Sea area and a challenge because of the lack of comprehensive and operative management tools to enforce cooperation mechanisms. He finally expressed his trust and confidence in the meeting to identify key issues for prompt concerted actions and thanked the GFCM Secretariat for the excellent collaboration.

3. Mr Constantin Stroie, Counsellor of the National Agency for Fisheries and Aquaculture (NAFA), also welcomed the participants on behalf of the Minister of Agriculture of Romania, and expressed his satisfaction to note participation in the Meeting of all Black Sea riparian countries, especially of those non-members of the GFCM. He recalled the importance of this event as the best opportunity to address the salient issues of the Black Sea fisheries and aquaculture management and wished every success to the participants in their endeavor.

4. Mr Abdellah Srour, Executive Secretary of the GFCM, expressed on behalf of the General Fisheries Commission for the Mediterranean and the Black Sea and its Chairperson Mr Stefano Cataudella, warm thanks to Romania for hosting the meeting. He noted the presence of all Black Sea riparian countries as a clear recognition of the importance of the Working Group and recalled the role of the GFCM in promoting, *inter alia*, the collaboration in the area. He finally deeply encouraged the participants to achieve substantial results during the meeting. In addition to his opening address, Mr Srour gave a presentation on the structure, functioning and objectives of the GFCM.

5. Mr Henri Farrugio chaired the meeting and the GFCM Secretariat undertook the task of reporting.

6. The Agenda was adopted with minor changes and is provided in Appendix A.

## GENERAL OVERVIEW ON THE CURRENT SITUATION OF FISHERIES AND AQUACULTURE IN THE BLACK SEA

7. The working group made a general overview of the current situation of fisheries and aquaculture in the Black Sea by the means of detailed presentations of national and international experts and open discussion among the participants. It concluded that the Black Sea ecosystem is one of the most investigated marine systems in the world.

8. Following the presentation of a background document prepared by the Secretariat, the working group was recalled that, due to dramatic changes since the early 1970s, the end of the 1980s saw the collapse of pelagic fisheries because of the combined effect of successive over-exploitation of fish stocks (i.e., fishing down the food web), the increased pollution and eutrophication of the basin, population outbursts of alien planktonic carnivorous and strong decadal-scale climatic fluctuations.

9. About 200 fish species inhabit the Black Sea. Among the whole specific diversity, the greatest economic value, however, is due to not more than two dozens of species that produced about 98% of catch in 1996-2008. Anchovy and sprat accounted for more than 90% of total annual catch in 2008 The rest of the catch included commercially less important fishes, such as the Mediterranean horse mackerel (15.300 tons), whiting (11.100 tons), Atlantic bonito (5.000-20.000 tons) and a few mollusks (e.g. Rapa whelk). It is important to underline that the fisheries of the six riparian countries showed a different temporal trend in their total annual catch with only Turkey fisheries able to relatively recover after the collapse observed in the early ‘90s. Explanation of the causal factors behind the observed trends can be found in several studies, also underlining the role played by socio-economic factors (e.g. subsidies). After the catch collapse of the late ‘80s/beginning ‘90s a recovering was observed for anchovy and sprat whereas the horse mackerel catch remained at very low catch values. Among demersal stocks, the catch of both whiting, red mullet and picked dogfish continuously decreased from the early ‘90s. The turbot catch shows large fluctuations which could also be related to the reliability of official catch data for this stock. There is however a general consensus among fisheries experts in the region about the rather scarce reliability of official statistics which seems also to be highly affected by IUU fishing. Updated information on fishing fleet statistics data seems to be hardly accessible for non EU or GFCM members and barely comparable at the regional spatial scale.

10. The most recent assessments concerning the region (STECF and GFCM) indicated, *inter alia*, an overfishing status for anchovy, whiting and turbot, whereas sprat was considered as sustainably exploited in recent years. In spite of some effort produced by some regional bodies such as the Commission on the Protection of the Black Sea against pollution, GFCM, EU and many recommendations issued in various contexts, national and regional data have rarely been produced to be easily consulted and assessed to make regional comparisons, analyses and, ultimately, to allow regional planning.

11. Fisheries management has very different traditions in the various Black Sea countries, with some practice for applying Total Allowable Catches (TACs) and vessel quotas in the states that were formerly united in the Soviet Union. TACs and national quotas have been applied in Bulgaria and Romania for turbot and sprat since 2008.

12. The Working group underlined the fact that fisheries management in the Black Sea still requires strengthening and regional harmonization of the regulatory and legal framework, especially with regard to the conservation and protection of the migratory and shared marine living resources.

13. The GFCM, which covers the Black Sea region, has the authority to adopt binding recommendations for fisheries conservation and management in its Convention Area with the potential to play a critical role in fisheries governance in the Region. On the basis of scientific advice, GFCM adopts recommendations and resolutions designed to promote the development, conservation, rational management and best utilization of stocks of living aquatic resources in the Mediterranean and the Black Sea at levels are considered sustainable.

14. The working group also noted the great importance of the aquaculture sector, including all the categories (fresh, brackish and marine water) in the Black Sea. In fact, during the last decade the production from aquaculture has increased from 185.000 tons (1999) to 320.000 tons (2009) with an average annual growth rate of about 7.3 %. This increased production mainly came from freshwater aquaculture (74 %), represented largely by carps and other *ciprinidae*, meanwhile mollusks and finfish (European sea bass, mussels, oysters, sea trout and turbot) characterise the production brackish and marine aquaculture (26%). For the latter the activities are for both restocking and for human consumption purposes. Data availability and data limits do not permit to give a clear figure of the production in the area.

15. The actual development of brackish and marine aquaculture in the region is not homogenous and show different patterns according to the technology applied and species reared. In Bulgaria the aquaculture largely focuses on mussels farming whose production about 806 ton in 2009. In Russia, considering the Black sea and Mar d'Azov, marine aquaculture is poorly developed with few small commercial mussel farms, giant oyster and trout and the total not exceeding the 200 tonnes, meanwhile the potential yield for this area is estimated to be 15.000 – 20.000 tonnes of bivalve and up to 20. 000 tonnes of marine fish. In Ukraine the marine aquaculture is limited to the production of 47 tonnes of mussels (2009).

16. In Turkey, the most farmed marine species is the European sea bass with a production of 1.360 tonnes in 2009. Sea trout are also farmed in cages (5.129 tonnes in 2009), whilst turbot are cultured for restocking purposes.

17. The working group also noted that brackish and marine aquaculture has a great development potential in the Black Sea area due to the availability of water recourses and environmental characteristics. Furthermore, the technology development during the last years, including cages and new rearing systems, represent new opportunities for the marine aquaculture development.

18. Updating and improving national legislation for marine aquaculture is recognized as a regional priority. This would require an harmonization in term of access licensing procedures, monitoring and site selection. Other regional priorities include development of infrastructures as well as strengthening the regional cooperation among research institutions and countries for sharing knowledge and best practices, improve technical capacity and develop training represent priorities some key priorities for the development sustainable aquaculture in the Black Sea.

## Fisheries activities, status of the main stocks and research activities

19. Participating experts presented the available scientific information and the main progress of the work carried out in the Black Sea, as follows:

**EU Fisheries in the Black Sea** (*Cervantes A.*)

Abstract: Romania and Bulgaria are subject to the provisions of the Common Fisheries Policy (CFP) since their accession to European Union (EU) in 2007. Three pelagic stocks and two demersal stocks are mainly exploited by mid-water trawls and some coastal fisheries. Since 2008, Bulgaria and Romania have collected fisheries data according to the EU Data Collection Framework (DCF) and attend annual coordination meetings for standardization, harmonization and task sharing. Data are collected for the elaboration of scientific advice. He also provided an explanation on the EU scheme for the collection of the main basic fisheries data for the provision of scientific advice and how this advice impacts the decision making process. In October 2011 the European Commission organized a "Brainstorming event on maritime affairs and fisheries in the Black Sea" in cooperation with the main Bulgarian and Romanian authorities and that during this exercise a number of options for the future of the Black Sea fisheries were identified as follows: Improving Regional Dialogue, Improving Research and Data Collection and Improving Fisheries Control and Monitoring. The EU considered that action of the GFCM in the Black Sea should be enhanced and supported.

**Outline of the activity of the Advisory Group on environmental aspects of fisheries and other marine living resources management** (*Nicolaev S.*)

Abstract: The activity of the Advisory Group for Environmental Aspects of Fisheries and Other Marine Living Resources Management (AG FOMLR) carried out in 2010 was outlined. The author listed the main basin level technical and economical indicators of the Black Sea fisheries, among which he mentioned fish consumption per capita, number of fishers employed in fisheries, total catches and main threats on living fisheries resources. He then presented the main parameters which characterize the national fisheries of the six coastal countries, including total landings by species, fishing fleet structure, stock assessment, fisheries regulations, aquaculture, and research programs. He also introduced the regionally coordinated activities, including the 2011-2012 work-plan.

**Methods and fishing gears used in the Black Sea area** (*Nicolaev S., Anton E.*)

Abstract: The author introduced fishing gear and methods used by riparian Black Sea countries, as well as target fish species, types of boats / vessels operating and their impact on water resources, status of dolphins and their specific habitats. Gillnet gear (fixed or drifting) are used by all Black Sea countries, both for demersal species (i.e. turbot, flounder, dogfish, gobies) and pelagic one (i.e. Danube shad, Caspian shad, mullet, bonito, blue fish). He underlined that gillnets have a high retention capacity by hooking and entangling many fish and they reduce the chances of escape of dolphins, which, in their attempt to recover the captive fish in mesh networks, become themselves victims of these tools. He also informed on other tools that cause the same problem, such as trap net tools, installed on floaters or pillars. He concluded that the tools with the least harmful impact on dolphins are longlines and handlines. In fact, as they are stationary fishing tools, set on the sea floor, thus with a static position during operation, longlines do not generate harmful effects on marine living resources and their specific habitats.

**Pelagic fish stocks in Bulgarian marine area: state, trends, management and ecosystem consideration beyond sustainable utilization** (*Raykov V., M. Panayotova*)

Abstract: Sprat is one of the most important fish species, being fished and consumed traditionally in Black Sea countries. It is the most abundant fish species in the NW and Western region and accounts for most of the landings, followed by anchovy and horse mackerel. Predominating and commercially important in the mid 50-60's of the 20th century was mackerel (*Scomber scombrus*), bonito (*Sarda sarda*), horse mackerel (*Trachurus Mediterraneus ponticus*), anchovy (*Engraulis encrasicolus*) and other warm water fish species, which migrate in front the Bulgarian coast for spawning and fattening. In view of this, these migrating species, also known as "shared fish stocks", are passing in front the Bulgarian coast in northern direction during spring period and in southern direction to the wintering grounds, thus coinciding with two main fishing seasons: spring and autumn. The catch in these seasons depends not only on the condition of the stocks, but also on the hydro-meteorological conditions. As with the Mediterranean Sea, the use of Total Allowable Catches (TACs) is currently limited, with Bulgaria only setting a TAC for the sprat (pelagic) fishery for example. It has still been necessary though to make some changes to national legislation on stock conservation, in areas such as landing sizes and gear restrictions. Future actions in resource management require further monitoring improvement and reduction of unreported catches. Other priorities include management of fleet capacity (modernization, hygiene and safety improvements) and development of the aquaculture, manufacturing industry and marketing. Many of these improvements to the Bulgarian fisheries management system would make a positive contribution to the region. The Black Sea is however an example of the need to manage more than individual fish stocks. Wider environmental issues highlighted the importance of applying the ecosystem approach, as envisaged by the proposed EU marine strategy Directive and as required by the CFP. In doing so, Romania and Bulgaria will need to cooperate with the remaining four non-EU bordering countries, as well as with each other.

**Fisheries, status and management of the main demersal fish stocks in the Bulgarian Black Sea area** (*Panayotova M., Raykov V.*)

Abstract: Demersal fish species represent valuable resource for the Bulgarian fisheries and statistics on landings exist since 1925. Catches are dominated by 10 species, but the share between them varies depending on the periods. Stock assessments by analytical and holistic methods exist for certain species but the recent ones are dedicated to the evaluation of the state of turbot stocks occurring nearby the Bulgarian Black Sea coast. Surveys covered period 2006 – 2011 and were carried out under EU-DCR. Useful biological information about turbot distribution, size age structure and population parameters was collected and used for management issues. For the protection of demersal fish stocks along the Bulgarian Black Sea coast different technical and management measures were implemented at national and regional level.

**Black Sea anchovy stock assessment project** (*Gucu A. C. and S. Sakinan*)

Abstract: Black Sea anchovy was introduced as being by far the greatest contributor to the overall Turkish landings from sea as it occupies more than 50 % of the total catch of the country. However, it was explained that this important marine resource is managed based on the expectations of the fisheries sector rather than sound scientific strategies that could possibly lead to maximum sustainable yield. Being a species of the entire Black Sea basin exhibiting basin wide spawning distribution, the Black Sea anchovy is exploited almost exclusively by the Turkish fishing fleet during over-wintering season when they form very dense aggregations along the territorial waters of Turkey. The presentation showed that exclusive exploitation of this transboundary and shared stock brings along heavy burden of ensuring sustainable utilization of the species and that for this reason, Turkey was urged to initiate stock assessment studies based on scientifically sound methodologies, given that exploitation of the marine resource without management strategies, in the territorial waters of

Turkey and on Black Sea anchovy in particular, which created a significant problem during the EU accession phase. It was therefore argued that lack of stock assessment studies is not only a matter of utilizing the potential of a value resource but also a growing international problem being faced also by Turkey. The Black Sea Anchovy Stock Assessment project was introduced with the aim to initiate an optimized model according to the marine infrastructure facilities currently available at the Ministry of Food, Agriculture and Livestock which is, by law, responsible to carry out stock monitoring and assessment studies in Turkey. The only fisheries research vessel owned by the ministry is not sufficiently large to conduct fisheries surveys covering the entire range of the anchovy in the Black Sea. However, to fulfill the biological requirements, the species undergoes seasonal migrations and aggregates on the southeast Black Sea in winter. Almost 90% of the stock is accumulated within an area not larger than 1% of the surface area of the Black Sea. The presentation outlined one of the goals of the project as to set the borders of the over-wintering area and to determine the environmental overwintering conditions, the following goal being to assess the size of the over wintering stock using hydro-acoustic techniques, for which the results are planned to be incorporated in a stock assessment model tested and modified for the Black Sea anchovy.

**Ongoing research Projects carried out by Trabzon Central Fisheries Research Institute** (*Özdemir A.*)

Abstract: Trabzon Fisheries Research Institute was established under structure of Ministry of Food, Agriculture and Livestock, General Directorate of Agricultural Research and Policy (TAGEM), in 1987. In 1998, the institute was awarded "Central Institute" status by the Ministry and its regional base duties advanced to national level. The main aims of the institute are to carry out scientific studies in inland and marine environments, to collect data from all around the country waters and evaluate them, to investigate aquatic resources, fish stocks and fishing fleets, to develop aquaculture, to provide technical and practical information to scientists, students, fisherman and fish farmers and to advise decision-makers. Since established, the Institute have carried out numerous basic and applied research projects in order to get best available scientific and technical information to be used sustainable management of fisheries and aquaculture in Black Sea. Dr. Özdemir, Director of the Institute, provided an overview of the following research projects:

- Demersal Fish Stock Assessment in the Eastern Black Sea Littoral Zone of Turkey;
- Demersal Fish Stock Assessment in the Western Black Sea Littoral Zone of Turkey;
- Restocking of the Turbot;
- Monitoring of small pelagics;
- Research on Striped Venus (*Chamelea gallina*) stocks in the Western Black Sea coast;
- Pots For Whelk Fishing.

**Scientific support for fisheries in the Ukrainian sector of the Black Sea** (*Shlyakhov V.*)

Abstract: In 2010 the production of fisheries in Ukrainian sector of the Black Sea, including marine fish in the saline estuaries connected with the sea, was 41.1 thousand tons. About 30 commercial fish species or closely related species of marine living resources are of certain economic value. On the basis of the regular scientific investigation, the Southern Scientific Institute of Marine Fisheries and Oceanography (YugNIRO) assesses annually the status of the exploited marine living resources. For each exploited stock the “Limit” is calculated and the Total Allowable Catch (TAC) established, within which all kinds of the special use of the stock within subsequent calendar years. In 2010 limits for the Black Sea were established for 17 units of the marine living resources stock and for “migrating fishes” in the Black and Azov Seas – for 9 units. At the same time methodical assessments of the stock size and TAC were carried out according to the materials of different kinds of surveys (i.e. Virtual Population Analyses or VPA, Length Cohort Analysis or LCA) only for 9 units (35% of the limited stocks), and expert assessments were done for the rest. In terms of scientific support to Ukrainian fisheries, the main problem lies in the reduction in state funding. The past two decades deplored a steady decrease in the number and types of marine surveys. Nevertheless,

due to management measures taken by Ukraine, most of stocks remained stable while at the same time preventing overfishing;

**Collaborative international scientific research of marine living resources and marine environment as a basis of sustainable development of the Black Sea fisheries**
(*Kumantsov M.I., Strakhova T.V.*)

Abstract: The Black Sea basin has unique hydrographic and hydro-chemical parameters and environment. In addition, it is an essential fishing area for the Black Sea countries: the Russian Federation, Ukraine, Bulgaria, Romania, Turkey and Georgia. Fisheries and aquaculture play an important role in the socio-economic welfare of regions in the coastal areas, being the basis for the development of trade and recreational economy, providing the population with the food supply and employment. Joint use of aquatic territory and resources by all the countries of the Black Sea region has necessitated the development of collaborative international activities oriented to the conservation and restoration of the Black Sea marine living resources and their environment. The basis for the development of these measures should be integrated within a scientific research approach and joint efforts of all interested research institutions and organizations, representatives of the administration, agencies responsible for the protection of the environment and natural resources, fisheries management organizations of the Black Sea countries.

Russian Federal Research Institute of Fisheries and Oceanography (VNIRO) within its area of expertise, suggests a programme of collaborative international environmental and aquaculture research, which could serve as a firm basis for sustainable development of the Black Sea fisheries. It is indispensable to conduct oceanographic, hydro-chemical, biochemical, hydro-biological, hydro-acoustic and ecological - toxicological research within the frame of comprehensive environmental monitoring of the Black Sea basin. The high priority in the planning of the regional scientific collaborative activities should be given to elaborate unified methodological approaches to the scientific research, create an integrated database of abiotic and biotic factors of marine living resources environment; carry out joint scientific and field research; collaborative publications and conference participation; regional coordination and correction of the positions, research activities and the results; joint training and internship of scientific experts and staff.

**Presentation of the Project: "Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries (SRCSSMBSF)". EC/CBC- Black Sea Basin 2007-2013, Joint Operational Programme** (*Radu G.*)

Abstract: data were presented on: Name of the Applicant, Partners, Priority and measure, Total duration of the Action, Budget - Sources of funding, Human Resources, Overall objective, Specific objectives, Main activities, Target group(s), Final beneficiaries and Estimated outputs and results.

**Chronology of Stock Assessments in the Black Sea Coasts of Turkey**
(*Duzgunes E. and K.Seyhan*)

Abstract: Although there was no national policy to assess the fish stocks, there have been several stock assessment initiatives on small cetaceans, Rapa whelk, anchovy, horse mackerel, whiting, red mullet and turbot funded by TUBITAK, university research funds and institutional budgets. In this context, various relevant research activities were chronologically summarized, most of which conducted at local level.

**Implementation of the National Fisheries Data Collection Program in Romania** (*Radu G.*)
Abstract: Dr. Radu presented the main components of the National Fisheries Data Collection Program carried in Romania in compliance with the EU Data Collection Framework. A general description of the main requirements in terms of variables (economic variables, biological métier related variables, biological recreational fisheries, biological stock-related

variable, transversal variables) was provided. The presentation was completed with the description of the ongoing research surveys, the evaluation of the economic situation of the aquaculture and the processing industry as well as the evaluation of effects of the fishing sector on the marine ecosystem. The National Agency for Fisheries and Aquaculture (NAFA), under subordination of Ministry of Agriculture and Rural Development, is designated for the implementation of the National Data Collecting Programme 2011-2013, which will be conducted in close cooperation with National Institute for Marine Research and Development "Grigore Antipa" Constanta (NIMRD) and Institute of Research – Development for Aquatic Ecology, Fisheries and Aquaculture – Galati (IRDAEFA).

**FAO Sturgeon activities in Northern Turkey and follow-up** (*Marmulla G.*)

Abstract: Mr. Marmulla presented information in relation to the TCP/TUR/3202 on "Recovery of sturgeon populations in Turkey: habitat assessment and restocking" that had been implemented by FAO upon request by the Turkish government. This project, that had been executed by the Turkish Ministry of Food, Agriculture and Livestock, ended after three years at the end of October 2011. Mr. Marmulla presented the longer-term development objective, the specific objectives and key outputs of the project. In particular, he made reference to the development of a Turkish National Action Plan for the Sturgeons where the in-situ protection of the sturgeons in their natural habitat, the protection and restoration of sturgeon habitats, the ex-situ protection of the sturgeons and their stock reinforcement as well as international cooperation between the range states in the Black Sea form a central part. It is expected that this Action Plan will soon be finalized, approved by the Turkish government and then implemented. Furthermore, Mr. Marmulla reported on recommendations of the Regional Workshop on the Strategy/Action Plan for Conservation of Sturgeon and Rehabilitation of Critical Habitats in Black Sea that had been held in Trabzon, Turkey, in October 2011 as part of the TCP/TUR/3202. During this workshop participants from Georgia, Romania, the Russian Federation, Ukraine and Turkey recommended *inter alia* a close cooperation by the Black Sea countries on sturgeon matters with the aim to better protect and rehabilitate sturgeon populations in the Black Sea. A joint regional project on sturgeon was deemed necessary and should deal with the pressing issues such as genetic analysis and marker development, broodstock development, tagging, joint development of management strategy for remediation, etc.

Mr. Marmulla also reported that EIFAAC, after its restructuring, was seeking to relaunch the cooperation with GFCM on sturgeon matters and to revive the joint EIFAAC/GFCM Working Group on Sturgeons that has existed until 2008. EIFAAC was furthermore suggesting a close cooperation with GFCM on eel, in particular in the Mediterranean Sea and Black Sea, inviting GFCM to become a partner of the EIFAAC/ICES Working Group on Eel to make it a EIFAAC/ICES/GFCM Working Group.

On behalf of Mr. H. Rosenthal, President of the World Sturgeon Conservation Society (WSCS), Mr. Marmulla finally extended an invitation to all meeting participants to attend the WSCS General Assembly in Tulcea, Romania, in March 2012 and distributed copies of the Tentative Agenda.

**Database for marine fisheries – Romanian national programme for data collecting** (*Danilescu M.*)

(Abstract: not provided)

**Discussion**

20. In the ensuing discussion, a number of experts reiterated the need to develop common activities and standardized methodologies in order to ensure a better reliability of the fisheries data available in the Black Sea, considered now as a priority area.

21. Participants also stressed the importance to avoid duplication of activities and to enhance further regional cooperation. In this regard, it was underlined that the data collected through the EU Data Collection Framework are aimed to feed the end-users, the GFCM being a privileged one.

22. Considerations were also made on the quantity and quality of the research activities carried out in the areas and in this regard experts agreed on the creation of a regional data base on the GFCM website, where information on regional institutions and groups of specified experts involved in the area would be gathered.

23. Discussion was also held on the results of some stock assessment for both demersal and small pelagic fisheries resources. The Turkish experts questioned the total international catches quantity of anchovy (200 000 tonnes for 2012) advised by STECF. In their view, such advice needs to be further reconsidered, based on the results of the ongoing acoustic survey carried out on the Turkish Black Sea Coast.

24. The GFCM Executive Secretary also recalled the ongoing development of the GFCM Framework Program, which aims precisely to foster synergies, through joint-actions including non-GFCM Members.

25. The meeting also suggested the drafting of two comprehensive publications respectively on the status of fisheries and the gear used in the Black Sea, by experts from the six riparian countries and with the support of the GFCM Secretariat

26. Emphasis was also put on the importance of small-scale fisheries for the economy of the coastal communities in the region and agreed that specific action should be suggested in support of such initiatives.

27. With reference to the cooperation in the Mediterranean and Black Sea areas, the GFCM Executive Secretary informed that Memoranda of Understanding between GFCM and key organizations (i.e. Black Sea Commission, ACCOBAMS, UNEP and MedPAN) would become fully effective soon, thus allowing further cooperation on suggested activities.

28. Following the presentations, discussions on the selective fishing gear and technical measures took place. The importance to increase the selectivity of the fishing gear, to conduct studies on the determination of appropriate mesh sizes (especially for trawl fishing) and assessment of surveys on regular basis as well as to develop and implement common regional methodologies was emphasized.

29. Several comments also centered on IUU fishing at national and regional levels, historical status of the primary commercial fish species, current quota management systems set up by EU and the reliability of statistics and fisheries data in terms of sustainable fisheries management. In this regard, a special stress was placed on the development of effective and harmonized controlling mechanism to increase compliance with, *inter alia*, data reporting requirements and management measures.

30. Participants highly welcomed the cooperation between GFCM and EIFAAC and stressed the need to revitalize joint workshops on Sturgeon and Eel. The possibility to be associated to the World Sturgeon Conservation Society was also envisaged.

31. Finally, enhancement of working collaboration among the fisheries research institutions of Black Sea countries, including those of non-GFCM Members, as well as development of a regional database and network were among the main issues that were highlighted.

**Aquaculture, status and scientific research in the field**

32. Mr Fabio Massa, from the GFCM Secretariat, introduced the activities of the Committee on Aquaculture (CAQ) of the GFCM. He recalled that GFCM, through the CAQ and its subsidiary bodies, already identified a series of priority initiatives for the sustainable development of aquaculture, tackling issues related to the environmental impact, marketing, sustainability and data availability also through the use, *inter alia*, of the GFCM portals and online data forms.

33. He recalled the role of GFCM in promoting sustainable development of aquaculture and the necessity for having reliable data available. He also mentioned the *Recommendation GFCM/33/2009/04* "*on Reporting of Aquaculture Data and information*" adopted by the Commission for the mandatory submission and annual reporting through the SIPAM (Information System for the Promotion of Aquaculture in the Mediterranean).

34. Two presentations were made after the intervention of the Secretariat:

**Overview of the aquaculture activities in the Black Sea** (*Deniz H.*)

Abstract: The Black Sea supports an active and dynamic marine ecosystem, dominated by species suited to the brackish, nutrient-rich, conditions. As with all marine food webs, the Black Sea features a range of trophic groups, with autotrophic algae, including diatoms and *dinoflagellates*, acting as primary producers: an environment in which brackish and marine aquaculture activities can be developed.
Aquaculture started in 1869 in the Black Sea on the prompting of the first artificial insemination of the sturgeon occurred in Russia, but commercial scale aquaculture was started in 1930. There is a long history of sturgeon aquaculture in the Azov Sea. Today, the main aquaculture species are sturgeon, trout, whitefish, carp, turbot, Mediterranean mussel, scallop and oyster. Assessing aquaculture in the region is a comparatively difficult task due to lack of updated and reliable statistical data. Black Sea countries have great potential for aquaculture development however there is scarce utilization of brackish and marine aquatic resources, despite progress made in Turkey and Russia. The necessity of reaching international and regional assistance and collaboration for enhancing aquaculture sector in the Black Sea countries is of primary importance and the role to be played by the GFCM in this process is crucial.

**Aquaculture Research Activities in the Black Sea - Turkey Case Study** (*Özdemir A.*)

Abstract : After giving a presentation on the main figures on the aquaculture production in Turkey, he presented the main results and outcomes of the work carried out on sturgeon and sea trout. The first focused on the activities to recover the stocks and the second aimed on the rearing of trout in sea cages, the issues related to the interaction with the environment was also presented. Furthermore he also informed the participants about the achievement of the activities of artificial reproduction and first rearing of turbot for restocking activities, the involvement of the fisherman on the catch result analysis including the successful results.

**Discussion**

35. The ensuing discussions focused on the development of aquaculture trends and agreed on the potential role of this sector in contributing to the increase of the fisheries production in the area. The participating experts acknowledged the rapid development and progress made by Turkey during recent years both in terms of technologies applied and of new species rearing.

36. Considerations were also made in light of the possibility to develop similar trends in other parts of the region, taking into account the environmental and economic peculiarities of each area.

37. With reference to the general rapid development of aquaculture, some concerns were expressed about the impact of aquaculture on the environment. In this context, it was stressed that the use of fish meal should be limited through the implementation of environmental monitoring programmes and best practices in the use of fish feed should be introduced. It was also underlined that management and exploitation of aquaculture activities should be carried out in a sustainable manner.

38. The meeting participants mentioned the relevance of site selection procedures and considered the improvement of site selection methodologies, site management and environmental regulations as a priority for the area.

**Fisheries and aquaculture related legislation**

39. Ms Camille Samier, from the GFCM Secretariat, presented the LaMed and ShocMed projects, two initiatives recently launched by the GFCM with regard respectively to the fisheries and aquaculture legislation. She informed the meeting of the backgrounds, objectives, methodologies and expected outputs of the projects. The overall progress made, the main activities conducted and outcomes achieved were further explained.

40. It was noted that regarding the Black Sea, further efforts need to be displayed in order to finalize the LaMed Project which relies, to a great extent, on the support and inputs from the riparian countries. In this regard, Ms Samier reiterated the importance for the GFCM to update the information on national fisheries related legislation as they evolve over time, especially regarding: the access regimes, the conservation and management measures, the monitoring, control and surveillance as well as the enforcement procedures.

41. It was further explained that, once completed, the Project will not only provide with a better understanding of the regional legislative framework, but also potential areas of harmonization for improved fisheries management.

42. Finally, it was indicated that the SHoCMed, which aims at collecting legislation in force regarding licensing procedures, site selection, and environmental protection, may be extended to the Black Sea countries with a view to contributing to a sustainable development of aquaculture.

## IDENTIFIED DEFICIENCIES AND NEEDS FOR THE BLACK SEA REGION

43. The meeting discussed extensively achievements, deficiencies and gaps related to the fisheries and aquaculture in the Black Sea. In particular, participants pointed out the lack of cooperative and regulatory frameworks involving all six riparian countries. Availability of updated and reliable fisheries information and data was identified as the main requirement in terms of decision-making based on scientific advice. The meeting further identified the main and priority needs a follows:

- Establishing a comprehensive and standardized fisheries data collection program for the Black Sea in compliance with regional requirements, with the aim to enhance the reliability of the relevant data on landings and discards.
- Performing joint bottom trawl and acoustic surveys and other research activities, including on stock units and on the standardization of biological parameters estimates for shared and migratory stocks.
- Improving the national and regional capability to analyze and assess fisheries data and increasing awareness on the existing expertise in the region including on stock assessment and other relevant subjects.
- Promoting the implementation of the EAF including the development of criteria and methodologies for evaluation of ecosystems and habitats of importance for marine fisheries resources and for the establishment of fisheries restricted areas.
- Developing common and harmonized approaches for the conservation and restoration of endangered species and their habitats (e.g. sturgeons) and improving knowledge and monitoring of the status of diadromous fish stocks in their distribution area.
- Developing a regional fishery management system where technical measures adopted at national level could be harmonized in the region and increasing MCS compliance including for IUU fishing activities.

44. In the field of brackish and marine aquaculture, the participants underlined the positive impact that sustainable development of aquaculture could have in the region and stressed that the sector faces difficulties and constraints to reach an appropriate level of development allowing the improvement of related technologies and the increase of its production capacity.
The meeting also noted other deficiencies such as the absence of adequate regulatory frame in marine aquaculture and the limited knowledge on potential sites for aquaculture development. The meeting further identified the main priority needs as follows:

- Enhancing the development of sustainable marine aquaculture considering the need for assessing its regulatory framework and licensing procedures.
- Improving site selection planning and identifying Allocated Zones for Aquaculture (AZA) including the definition for zoning to develop mollusk culture.
- Promoting capacity building of national experts on marine aquaculture activities especially on the new technologies applied in this sector. The participation of experts to the regional networks and research programmes should be enhanced.
- Assessing the production capacity, improving the structure and infrastructure for aquaculture activities (farms for fish feed, Hatchery, recirculation systems);
- Promoting species diversification in marine aquaculture (marine trout, turbot, mollusks etc.) including the elaboration and dissemination of guidelines on restocking of turbot and sturgeon.
- Scientific cooperation should also take advantage of results of existing research activities/projects and scientific networks within the Black Sea as well as sharing results with other bodies (such as EU, BSC, EIFAAC, FAO etc.) involved in the area, with particular attention to the status of the stocks and the protection and recovering measures for endangered species.

45. The Working group insisted on the need for a more close cooperation among all concerned organisations and with the existing initiatives concerned by fisheries and aquaculture in the region.

This will allow to create positive synergies and complementarities which could be beneficial for the appropriate implementation of its working activities.

46. In addition, such cooperation will also contribute to better optimizing financial means and effort considering the difficult economical situation in the world. In this respect, special effort should be made to avoid duplications and overlap of research activities carried out in the region.

## MEDIUM TERM PROGRAM AND PRIORITY ACTIONS

47. With the objective to support the sustainable development of fisheries and aquaculture in the Black Sea, the WGBS agreed that priorities should be defined for the medium term period. The Working Group would subsequently plan its activities starting with the most urgent actions. It identified the following priorities:

- Scientific information at Black Sea level should be improved. The existing available data on fishing fleets, fishery stocks and environment should be inventoried and updated, including the information on the existing data collection systems and the methodologies used.

- Multi-disciplinary and regional database should be developed, as a step towards a harmonized and standardized analysis taking in consideration the existing and available data and information in the national institutes.

- Approaches and data required to develop the Ecosystem Approach to Fisheries and Aquaculture (EAF) in the region should be identified also taking into account the specific dynamic nature of the Black Sea marine ecosystem. Identification of Essential Fish Habitat for fisheries resources (nursery areas, spawning areas, feeding areas etc.) should be addressed in this context.

- Given the importance of small scale fisheries in the region, it would be necessary to increase the knowledge on artisanal fishing activities in particular on the best available practices, gear used, catch and effort, etc.

- A support should be provided for the implementation of fisheries and oceanographic surveys at sea at sub-regional level considering the need for establishing standardized and harmonized protocols and methodologies for fishery independent data collection.

- Training activities on stock assessment, monitoring marine environment and data collection in order to harmonize and standardize fisheries research activities should be carried out at different levels. Joint training and internship for scientific experts should be envisaged.

- Initiatives for regional harmonization should be fostered regarding fisheries and aquaculture management measures (e.g. mesh size, legal minimum size and others).

- Illegal Unreported and Unregulated (IUU) fishing should be further assessed. Guidelines should be elaborated in order to increase compliance.

- Training on classification and zoning for mollusk culture as well as certification protocols.

- New species and technologies should be investigated for the aquaculture activities in the Black Sea taking into consideration economic feasibility and the need for studies on recirculation systems. Specific training should be envisaged.

- Implementing regional initiatives aimed to harmonize monitoring of the environmental data related to the aquaculture activities.

- Undertake pilot study for coastal aquaculture projects in particular in the areas with poor brackish marine aquaculture development

- Inventory of the existing and on-going research and projects on fisheries and aquaculture in the Black Sea countries.

**Introduction of the first GFCM Framework Programme**

48. Mr Haydar Fersoy, the First Vice Chairperson of GFCM, made a presentation on a proposal concerning the first Framework Programme (FWP) to support sustainable fisheries and aquaculture in the Mediterranean and the Black Sea (2013-2018) referring to the recommendations of the GFCM Performance Review which was initiated by the Commission at its 31st session (2007) in response to the respective decisions of General Assembly of the United Nations (UNGA) and the Review Conference on the United Nations Fish Stocks Agreement (2006).

49. The proposed FWP is expected to contribute to creation of a more functional GFCM, further operalization of the binding recommendations of the GFCM, promotion of the outstanding principles of the modern international fisheries instruments (i.e. ecosystem approach to fisheries and precautionary principle), thus also serving for the respective global objectives of the United Nations (i.e. sustainable development of resources) and FAO (i.e. food security; sustainable use and conservation of fisheries resources). It includes five thematic and two geographical programmes each of which includes a work package that can be tailored in accordance with regional needs and emerging priorities. The FWP, which foresees external financial resources and collaboration and cooperation with the partner organizations active in the GFCM Convention Area, will be submitted to GFCM for approval consideration at its 36th Session, following submission of draft conceptual note of the FWP to Member States for comments.

**PROGRAMME OF WORK FOR THE PERIOD 2012-2013**

50. On the basis of the priorities identified, the WGSB suggested to carry out the following activities:

- Organize a workshop on data collection and information systems on fisheries in the Black Sea with the aim to*:*
  - assess the existing fisheries data and information systems
  - draw up an inventory of existing tools and methods for data collection and analysis
  - produce standard criteria for establishing a harmonized data collection system in the region taking in consideration the requirement for various users (GFCM, EU, BSC…)

- Organize a training course on direct and indirect stock assessment methodologies

- Organize sub-regional stock assessments on small pelagic and demersal stocks (possibly in collaboration with STECF)

- Organize a workshop to assess IUU fishing and its impact in the region

- Gather all relevant information on the fisheries and aquaculture related legislation in force in the area, with a view to create a regional database

- Create, through the GFCM website, a common regional database of experts and research institutions working in the Black Sea area

- Elaborate a publication on the most recent status of fisheries and aquaculture, as a result of the collaboration between the GFCM Secretariat and national experts from all riparian countries

- Elaborate a technical publication on the main fishing gear and fleets typology

- Revitalize the joint GFCM/EIFAAC Working Group on Sturgeon, focused in particular on the status of Black Sea sturgeon species in connection with the other European species

- Organize a workshop on Black Sea aquaculture species diversification in relation to aquaculture development in the region

- Organize training on site selection procedures, Allocated Zones for Aquaculture and monitoring for aquaculture activities

- Data inventory of marine and brackish aquaculture farms and production centres

51. The following meetings were scheduled:

| TITLE | PERIOD | VENUE |
|---|---|---|
| Workshop on data collection and information systems on fisheries in the Black Sea | September, 2012 | TBD |
| Training on direct and indirect stock assessment methodologies (Possibly with the STECF) | October, 2012 | Bucharest, Romania |
| Sub-regional stock assessments on small pelagic and demersal stocks (possibly in collaboration with STCF) | October, 2012 | Bucharest, Romania |
| Workshop to assess IUU fishing and its impact | TBD | TBD |
| Workshop on Black Sea aquaculture species diversification | TBD | Trabzon, Turkey |
| Training on site selection procedures, on Allocated Zones for Aquaculture and monitoring for aquaculture activities | December, 2012 | TBD |

**NOMINATION OF THE WORKING GROUP COORDINATORS AND FOCAL POINTS**

52. Mr Srour reminded the context of the nomination of the Coordinator, according to what had been decided when the Working Group was established, stressing the basic rules to be followed for this process.

53. Upon a proposal by the expert from the Russian Delegation, the participants unanimously nominated Mr Simion Nicolaev (Romania) and Mr Violin Raykov (Bulgaria) respectively Coordinator and Vice-Coordinator of the Working Group on the Black Sea for a two-year term. The terms of reference for the coordinators of the GFCM subsidiary bodies will be applied *mutatis mutandi* to this Working Group on the Black Sea.

54. Participants congratulated the nominated coordinators and underlined the important and challenging role to be played for ensuring that activities agreed be successfully and effectively implemented.

55. The nomination of focal points for each riparian country was also considered of capital importance by the participants. Mr Srour recalled that the Working Group could successfully achieve its objectives only through close collaboration between the Coordinators, the focal points and the GFCM Secretariat.

56. The focal points for each country, subject to final confirmation, were nominated as follows:

| | |
|---|---|
| Bulgaria: | Konstantin Petrov |
| Georgia: | Vakhtang Gogaladze |
| Romania: | Gheorghe Radu |
| Russian Federation: | Mikhail Kumanstov |
| Turkey: | Attila Özdemir |
| Ukraine: | Vladyslav Shlyakov |

## ANY OTHER MATTERS

57. The participants unanimously thanked the hosting country (Romania) for the excellent organization of the workshop and the warm hospitality. They all expressed their great satisfaction for the collaborative spirit and encouraging results achieved.

58. In particular, Mr Thomas Moth-Poulsen, FAO Regional Office for Europe, underlined the importance to immediately start concerted action in the Black Sea, stressing the need for GFCM and FAO to work together, especially after he noted the consistent effort put in the organization of this meeting. He recalled the diversified and challenging characteristics of the area but acknowledged the active participation of all involved players, insisting on the assistance FAO is ready to deploy for the activities to be implemented, through the organization, *inter alia*, of joint workshops. Mr Thomas recognized the key role being played by GFCM as relevant Regional Fisheries Management Organization for the Mediterranean and the Black Sea.

59. Mr Antonio Cervantes thanked, on behalf of the European Union (EU), the hosting country for the organization of the meeting and congratulated the GFCM, which had the trust of the EU as the ideal platform for the launch of this project and met the expectations. He underlined that the success of the meeting was determined by countries participation and the substantial results reached, especially the way they had been defined. In fact, he referred to the EU discussions undertaken during 2011 on the Black Sea and revolving around the concepts of *improved dialogue*, *improved cooperation* and *improved control and monitoring* and could not help but note that all three aspects had been achieved by the Working Group.

60. Mr Hayri Deniz, as President of EUROFISH, underlined its contentment for the successful results achieved in cohesion among all involved countries and stated EUROFISH readiness to start collaboration and support in the future activities of the Working Group.

61. The GFCM Executive Secretary thanked warmly the hosting country for the excellent organization of the meeting and for the hospitality. He also thanked the European Union for the financial support to launch immediately some activities of the Working group. Mr Srour expressed d his great satisfaction for the active participation and contribution of experts from non-Member GFCM States and his hope to further improve collaboration in the future.

## DATE AND VENUE OF THE SECOND MEETING OF THE WORKING GROUP

62. The second meeting of the Working Group will be held between the last week of March and the first week of April 2013. Exact date and venue will be determined at a later stage.

## ADOPTION OF THE REPORT

63. The meeting formally adopted the conclusions and future actions for the Working Group on Wednesday, 18th January 2012. Participants were given a week to provide comments and the full report was adopted by email on XX January 2012.

**Appendix A**

## Agenda

1. **Opening, arrangement of the meeting and adoption of the agenda**
2. **General overview on the current situation of fisheries and aquaculture in the Black Sea**
   - 2.1 Fisheries activities, Status of the main stocks and Scientific research in the field
   - 2.2 Aquaculture activities, Status and Scientific research in the field.
   - 2.3 Fisheries and aquaculture legislation
     - Presentation of the SHoCMed and LaMed activities
3. **Identification of strengths and gaps**
4. **Priority actions for the future**
5. **General conclusions and recommendations**
6. **Medium term programme of work**
   - Introduction of the Task Force activities, including the first Framework Programme to support sustainable fisheries and aquaculture in the Mediterranean and the Black Sea
7. **Nomination of Working Group Coordinators and focal points**
8. **Any other matters**
9. **Date and venue of the Second meeting of the Working Group**
10. **Adoption of the Report and closure of the meeting**

**Appendix B**

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