



**REPORT OF THE 3<sup>RD</sup> MEETING OF THE EASTMED  
CO-ORDINATION COMMITTEE  
BARI, ITALY 19 – 20 APRIL 2012**





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**ITALIAN MINISTRY OF AGRICULTURE, FOOD  
AND FORESTRY POLICIES**



**Hellenic Ministry of  
Foreign Affairs**

**Hellenic Ministry of Rural  
Development and Food**



**GCP/INT/041/EC – GRE – ITA**

**Bari (Italy), April 2012**

The conclusions and recommendations given in this and in other documents in the *Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean* series are those considered appropriate at the time of preparation. They may be modified in the light of further knowledge gained in subsequent stages of the Project. The designations employed and the presentation of material in this publication do not imply the expression of any opinion on the part of FAO or donors concerning the legal status of any country, territory, city or area, or concerning the determination of its frontiers or boundaries.

## **Preface**

The Project “Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean- EastMed is executed by the Food and Agriculture Organization of the United Nations (FAO) and funded by Greece, Italy and EC.

The Eastern Mediterranean countries have for long lacked a cooperation framework as created for other areas of the Mediterranean, namely the FAO sub-regional projects AdriaMed, MedSudMed, CopeMed II and ArtFiMed. This made it more difficult for some countries in the region to participate fully in international and regional initiatives for cooperation on fishery research and management. Following the very encouraging experience of technical and institutional assistance provided to countries by the other FAO sub-regional Projects,

### **EastMed**

was born to support the development of regional cooperation and the further development of multidisciplinary expertise necessary to formulate appropriate management measures under the FAO Code of Conduct for Responsible Fisheries and the principles of the Ecosystem Approach to Fisheries (EAF) to ensure rational, responsible and participative fisheries management

The project’s **longer-term objective** is to contribute to the sustainable management of marine fisheries in the Eastern Mediterranean, and thereby to contribute to supporting national economies and protecting the livelihoods of those involved in the fisheries sector.

The project’s **immediate objective** is to support and improve the capacity of national fishery departments in the sub-region to increase their scientific and technical information base for fisheries management and to develop coordinated and participative fisheries management plans in the Eastern Mediterranean sub-region.

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## **Publications**

EastMed publications are issued as series of Technical Documents (GCP/INT/041/EC – GRE – ITA/TD-00) and Occasional Papers (GCP/INT/041/EC – GRE – ITA/OP-00) related to meetings, missions and research organized by or conducted within the framework of the Project.

Occasionally, relevant documents may be translated into national languages as EastMed Translations (GCP/INT/041/EC – GRE – ITA/ET-00)

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For bibliographic purposes this document  
should be cited as follows:

EastMed, 2012. Report of the 3<sup>rd</sup> Meeting of the EastMed Co-ordination Committee.  
GCP/INT/041/EC – GRE – ITA/TD-11

## **Preparation of this document**

This document is the final version of the Report of the 3<sup>rd</sup> Co-ordination Committee meeting of the EastMed Project, organized by the FAO-EastMed Project (Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean) in Bari (Italy), 19-20 April 2012.

## **Acknowledgements**

The Ministry of Agriculture, Food and Forestry Policies of Italy and CIHEAM – Mediterranean Agronomic Institute of Bari (CIHEAM-IAMB), that provided hospitality and technical assistance in the organization of meeting, are gratefully acknowledged.

EastMed, 2012. Report of the 3<sup>rd</sup> Meeting of the EastMed Co-ordination Committee. Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean. GCP/INT/041/EC – GRE – ITA/TD-11. Athens 2012: 92 pp.

## **ABSTRACT**

The third coordination meeting of the EastMed project was held in Bari, Italy, from 19 to 20 April 2012 under the kind invitation of the Ministry of Agriculture, Food and Forestry Policies (MiPAAF) of Italy. The meeting was attended by delegations from Cyprus, Egypt, Gaza Strip & West Bank, Greece, Italy, Lebanon and Turkey, as well as a representative of the EC and staff from FAO HQ, FAO Mediterranean sub-regional projects and the GFCM. After the opening of the meeting and election of the chairperson, the activities during the 2<sup>nd</sup> year of the project were presented, followed by the proposals of activities for the 3<sup>rd</sup> year from each country. The participants expressed their satisfaction with the project and thanked both the staff of the project and the donors for their contribution. The agreed work plan for the 3<sup>rd</sup> year includes training and support in data collection, data analyses, activities aiming in strengthening stakeholders' awareness and activities in promoting regional participation and cooperation. The tasks of the project will be the development of a web-based licensing system and a feasibility study for new fishing vessel designs in Lebanon, training on socio-economics in Egypt, and Turkey, pilot activities on data collection in Gaza Strip, Lebanon and Turkey, development of the clams fishery in Egypt, experimental trials using alternative fishing techniques in Lebanon as well as training on the Ecosystem Approach to Fisheries. The 2<sup>nd</sup> permanent Working Group on Fish Stock Assessment in the Eastern Mediterranean and a Working Group on deep water demersal resources will also be held. EastMed finally, will continue to support the participation of experts from the project's area at the meetings of the FAO-GFCM and other relevant regional/international organizations. The EastMed project, in close cooperation with the other Mediterranean sub-regional projects, will continue to find synergies among the various activities in the region.

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BARI, ITALY  
19 – 20 APRIL 2012**

**Opening of the meeting and election of the Chairman**

1. The third Meeting of the Coordination Committee of the FAO EastMed sub-regional Project “Scientific Cooperation to Support Responsible Fisheries in the Eastern Mediterranean” was held in Bari, Italy, from 19 to 20 April 2012 under the kind invitation of the Ministry of Agricultural, Food and Forestry Policies (MiPAAF) of Italy and hosted by CIHEAM – IAMB.
2. The meeting was attended by representatives of the Donors, delegations from the countries participating in the project (Cyprus, Egypt, Gaza Strip & West Bank, Greece, Italy, Lebanon, and Turkey), representatives of the FAO Marine and Inland Service of the Fisheries and Aquaculture Resources Use and Conservation Division (FAO-FIRF), the General Fisheries Commission for the Mediterranean (GFCM) and staff of the other FAO Regional Projects CopeMed II, AdriaMed and MedSudMed and the European Commission. The list of participants is given in Annex I.
3. The project’s coordinator took the floor and welcomed all the delegations. She mentioned that another year had passed and that most of the activities agreed during the 2<sup>nd</sup> co-ordination committee meeting, had been implemented. She then highlighted that the representatives of the countries were present in order to review the activities of the intersessional period and to discuss and agree on the activities to be done during the coming period. She thanked the Italian authorities for hosting the meeting and particularly the efforts made by the CIHEAM-IAMB, for providing the facilities for the meeting, including the lodging of the participants.
4. On behalf of the CIHEAM-IAMB, the Director of the Institute welcomed the participants. He stressed that the fisheries sector plays a crucial environmental, economic and social role in the Mediterranean basin. In the Mediterranean fisheries numerous and complex factors coexist, namely, the greatly differing national policies on fisheries, regulatory heterogeneity on diversification and rationalization of activities, the different state of conservation of resources, the different needs of valorization of products (fresh and processed), and heterogeneity of the jurisdiction of national waters, in addition to the problems related to chain paths and different forms of associations.
5. He mentioned that the Mediterranean Agronomic Institute of Bari (CIHEAM-IAMB) is actively involved in the Mediterranean area for fifty years and promotes sustainable



agriculture in the whole Mediterranean region; this goal is pursued by enhancing human resources, deepening, widening and spreading scientific and technological knowledge, disseminating the culture of international co-operation. In order to achieve those objectives, CIHEAM- IAMB assists major institutions, both at the central and local level, in the identification, drafting and implementation of innovative projects in the Mediterranean countries, in order to promote food security and sustainable development, to favour dialogue and human development, while respecting cultural and territorial peculiarities.

6. The CIHEAM-IAMB, in coherency with its long-standing and sustainable links with the Mediterranean Partner Countries in this field, since 2007 has participated and is still participating in several international cooperation projects, such as the “PESCAMED project” funded by the Italian Ministry of Agriculture. Through a scenario analysis of the fishery sector, PESCAMED project intended to make operators of the fisheries sector more aware of the issues related to sustainable and shared management of fisheries resources in the Mediterranean, to promote their professional skills through training, and explore employment and economic issues in an innovative way.
7. Through the experience obtained and the trusty relationships established with the Mediterranean Partner Countries, CIHEAM-IAMB intends to animate and push the capacity-building and cooperation on sustainable fisheries in the Euro-Mediterranean scene. CIHEAM-IAMB has also a significant role in supporting the efforts locally made by the Mediterranean Countries in the process of institutional and economic adaptation to seize the development opportunities offered by globalization.
8. He concluded that a wide political consensus among the Mediterranean countries is the prerequisite for the application of any measure to control and preserve fish stocks, as well as to promote actions aimed at diversifying economic activities. Thus, CIHEAM-IAMB will continue to support the institutions of the Mediterranean countries, the fisheries associations, the GFCM, enhancing the dialogue between the Mediterranean countries, through cooperation and training activities centred on environmental and the socio-economic sustainability of the fisheries sector.
9. After the welcome speech, the representative of the Ministry of Agricultural, Food and Forestry Policies (MiPAAF) of Italy, thanked all the participants and highlighted the importance of the project in the region. He greeted the countries’ representatives and expressed his honour for having the participants gathered in Italy in occasion of the third EastMed Coordination Committee Meeting. He mentioned that as a member of FAO, Italy continuously supports regional and sub-regional actions to strengthen cooperation and capacity building for sharing of information and expertise, particularly with respect to responsible fisheries management and sustainable aquaculture. The focal point of Italy was then unanimously elected as chairperson for the third EastMed Coordination Committee Meeting.

10. The chairperson then introduced the agenda and invited the participants to comment in order to adopt it. The FAO FIRF's operation officer mentioned that FAO would like to brief the participants of the meeting on the recent financial problems of the project and an agenda item was introduced on the financial issues, after which the agenda was adopted. (Annex II)

### **Report on the project's progress**

11. The project's fisheries technical officer made a presentation of the major activities carried out by the EastMed project from April 2011 to April 2012, which was based on the document *EastMed CC3\_02* (Annex III). The participants appreciated the amount of work done by the project and emphasized that it represents the follow up to the planning, which had been approved during the 2<sup>nd</sup> Coordination Committee meeting (Antalya, 5-6 April 2011).
12. With respect to the survey at sea, the Turkish representative informed the meeting that the administrative procedures in order to undertake the survey have been initiated, including procedures with the Ministry of Foreign Affairs to conduct the trawl survey. The project's coordinator commented that a relative MoU is currently being prepared to be signed between FAO and the institute that will conduct the survey.
13. The Egyptian representative thanked the hosting country and the technical officer for his presentation. He noted that EastMed had performed many activities; however, Egypt would like to request more activities. In particular, technical assistance is necessary in order to enhance inspection, which is very important in his country. The project's coordinator invited the Egyptian delegation to include this in the country's proposal in order to be added in the work plan.
14. The chair person and focal point of Italy said that work must be done in the field of fisheries statistics. It is important to be aware of the situation of statistics in the various countries, to find ways to improve data collection and to know the main source of information of the various countries. The project's technical officer informed the participants that there are aggregated statistics of landings in all countries; however, that disaggregation by, for example, gear category and geographical area has to be improved. The quality of data also has to be improved. Fisheries statistics should be more specific and on a geographical level (e.g. by GFCM GSA). He also informed the meeting that for small scale fisheries there is a lack of data in most of the countries. Socio-economic and biological data is also lacking. Biological data is not collected on a regular basis, but only from specific research projects by some universities and research institutes. He emphasized that work is needed in this field. Pilot studies which are being implemented by the project, will assist the countries in this respect and at the moment include the pilot study in Egypt, the one in Lebanon has started and the ones in Gaza Strip and Turkey are

the next on the list. In Italy, Greece and Cyprus there is no need to have such pilot studies on data collection since the countries follow the EC Data Collection Framework (DCF).

15. The technical officer highlighted that data for all the countries needs to be standardized. In this respect according to the proposed work plan a meeting will be held in the coming period in order to standardize and develop guidelines on data collection, which is especially important for shared stocks. The technical officer considers that this process will be fruitful in 2-3 years time, in which at the same time capacity building is and will continue to be conducted. The EC representative mentioned that coordination with GFCM should be sought since a similar meeting is being planned by the GFCM in the same period. The technical officer took this suggestion and mentioned that the meeting organized by EastMed will be held after the meeting of GFCM.
16. The FAO FIRF coordinator mentioned that data is fundamental and emphasized that decisions need to be taken every year and that one cannot just wait for 15 years for a reliable data collection system. She also commented that there is a big variety of species and that FAO guidance should be followed on the methodologies that already exist. The focal point of Italy agreed on the importance to define the way the statistics are collected, in order to avoid collecting un-useful information. In many cases there is a lack of information on how data is collected and that field work is very helpful in this respect. The aims should be clearly defined and effort should be concentrated on data collection and experimental surveys. Data should be collected on a geographical basis at least on a GFCM GSA basis.
17. The Greek representative asked if the final aim of the data collection is to help countries in order to conduct stock assessments. He believes that the project is in the phase of building capacity and that there is the need to go further. The representative asked if there is enough time to do this work since the project will finish in 2014. The EastMed technical officer believes that it is important at the moment to concentrate on catch and effort data and ensure good spatio-temporal coverage. The main aim is not to conduct stock assessment but to introduce a culture of science based fisheries management, including the application of the ecosystem approach to fisheries, and that data collection is just one of the ways to achieve this goal.
18. CopeMed representative informed that the FAO ArtFiMed project in Morocco and Tunisia produced statistics on artisanal fisheries that can be shared. He suggested that the collection of data on marine birds and turtles could be done by onboard observers during the MEDITS, in order to get statistics on these species as well. The Italian focal point agreed that it is very important to get statistics for all species in order to have information on the general condition of the environment.

19. The focal point of Egypt took the floor to emphasize the success story between the project and Egypt. He expressed his satisfaction and thanked the project. He informed the meeting that the application of catch and effort data collection is in the finalization phase. He finds very important that a data collection team is being built in Egypt in order to have a series of data. He also mentioned the strong need for assistance in inspection and control.
20. The socio-economic consultant referred to the importance of data collection and in some cases the total lack of socio-economic data. He believes that this could be an opportunity to start from the beginning, to build up a culture for the collection of this kind of data.
21. The AdriaMed/MedSudMed representative thanked the EastMed team and mentioned that the project's activities have covered most of the requirements for the ecosystem approach. He hopes that the sub-regional approach could be developed further.
22. Regarding the socio-economics, the FAO FIRF coordinator suggested to keep in mind continuing gathering information while implementing socio-economic activities which improve the well-being of the fishermen and the sector in general. The project's coordinator proposed prioritizing activities, which are important from the financial point of view. The technical officer added that the project also moves in different directions, apart from data collection of socio-economic data, for example in Lebanon there is a planned activity to develop the small scale fleet in order to improve the navigational and health and safety issues and in Egypt to develop the existing clam fishery in order to increase job opportunities and diversify the fisheries.

### **GFCM activities for the next intersessional period**

23. The GFCM secretariat's representative presented the activities for the provisional 2012-2013 programme of work of the GFCM Scientific Advisory Committee (SAC, Annex IV). He thanked all regional projects for their support to SAC. He also referred to the need to receive more feedback from national institutions. The representative of the GFCM secretariat informed the participants that the schedule of the GFCM activities will be finalised at the plenary session.
24. The coordinator of the project and the representative of Gaza Strip requested clarifications regarding the possible participation of GSWB in GFCM Working Groups. The coordinator said that possibly the participation of experts in the WG of GFCM is country-dependent. The representative of the GFCM secretariat clarified that the participation of experts from GSWB has the same participation procedures as all the other experts in the region. Regarding the Work Plan as presented by the GFCM secretariat's representative, the project's coordinator commented that the training on bio-economic analysis, it is better and should be conducted jointly with the SCSA.

## **Proposals on national activities within the framework of the project**

### **Egypt**

25. The Egyptian representative thanked the project for the support given during the last intersessional period. The Egyptian representative particularly highlighted the importance of the project in implementing the pilot fisheries-dependent data collection survey in Egypt, which aimed both at improving the data collection activities of the Mediterranean fisheries in Egypt, as well as to strengthen the capacity of the staff of GAFRD in data collection. The proposals of the Egyptian delegation are the development of the activity of clams, the collection of socio-economic data and the improvement of the trawl fishing technique so that it becomes more ecological friendly. The fishermen have a need of conducting a seminar on the existing fishing technologies, as well as some field activity, aiming to improve the fishing techniques.
26. The Egyptian delegation also expressed their need for the Fish Identification Guide (FIG). The Italian focal point noted that the use of FIG has to be conducted with care as it is not always easy to identify some species (e.g. grey mullet). It is important to clarify the identification criteria. The Egyptian delegation suggested a discussion with EastMed in order to improve identification. The project informed the meeting that the data collectors in Egypt will have computers soon, so they will be able to read the FIG in electronic version. It is important for the interviewers to start recognizing the species. The FAO FIRF coordinator agreed on the importance of FIG and noted that detailed guides are not practical for fishermen. The FAO FIRF coordinator, therefore, proposed to train people on the identification after the distribution of the guide.
27. With respect to the improvement of the trawl gear, the FAO FIRF coordinator also considers that balance has to be achieved between increasing catch and effort and ecological friendly gears. She suggested the collaboration with FIRO service within FAO and with an ICES working group on fishing technology, which is actually developing bottom trawls which are more environmentally friendly and reduce impacts on the bottom, while at the same time keep the same level of catch. EastMed noted that this point has already been taken into consideration by the project in the past, during the training courses on inspection and control.

### **Greece**

28. The Greek delegation presented a proposal for the technical support of EastMed for the optimization of planning, definition and pilot application of a monitoring system aiming to the collection of socioeconomic parameters in small scale fishery of Greece, another one on the assessment of the deep water demersal resources and the last on the training of fishermen`s women with respect to the canning activity of albacore and bonito in the

island of Kalymnos. The project's coordinator mentioned that all of the Greek proposals have been included in the work plan.

29. The Greek delegation also commented that the commercial deep-water resources in the Ionian Sea such as red shrimps (*Aristaeomorpha foliacea* & *Aristeus antennatus*) and other deep-water shrimps (*Plesionika martia* & *Plesionika edwardsii*), wreckfish (*Polyprion americanus*), hake (*Merluccius merluccius*) and blackspot redseabream (*Pagellus bogaraveo*) are targeted from Greek and Italian fishers in the Ionian Sea and therefore need a common assessment and management. As a result, Greece proposed the following activities:
30. To create a sub-regional working group targeting the deep-water biological resources and ecosystem assessment and management in the region. In this WG the experts can discuss, exchange ideas and collaborate in order to improve their knowledge on deep-water resources, to identify gaps in data, assessment and management and to help the establishment of future co-management of these resources in the concerned areas.
31. As a second step, to organize a workshop with invited scientists and relevant stakeholders with the scope to have an exchange of views and experiences related to the deep-water resources exploitation, assessment and management.
32. The participants mentioned that the proposals on the deep water resources are very important. Not all countries usually fish in these depths, but the resources are very sensitive and need proper monitoring. The Italian focal point agreed that this is an important point and that not enough information on the resources and on the fleet exists in the Eastern Mediterranean. Information should be collected on this fishery which operates mostly in international waters. The deep-sea ecosystems in which these fisheries are conducted are poorly known and are fragile habitats. The technical officer mentioned that in the permanent WG on stock assessment the red shrimp stocks were one of the stocks identified as candidate shared stocks and that there was a difficulty to attribute the landing data to the geographical area of the catch.
33. Finally, one issue which was raised by the Greek delegation was that of the Lessepsian migration and its impact on Eastern Mediterranean fishery, as new data on Lessepsian species have been resulted from fisheries research and data collection projects, carried out particularly in the south-eastern Mediterranean. As long as some issues related to Lessepsians (e.g. problems with the systematic of some species, the evaluation of discarded Lessepsian species catches e.t.c.) have been discussed between the members of NEELESFISH, a second technical meeting was proposed to be supported by the EastMed Project within the work plan for the 3<sup>rd</sup> year activities, under the following Terms of Reference:
  - Explore and report currently available data on Lessepsian species landings from fisheries across the Eastern Mediterranean.

- Provide a summary of the main conclusions of the Technical document reviewing available literature on biology, ecology, fisheries and toxicity of *Lagocephalus sceleratus* and suggestions on its potential utilization and the confrontation of its negative effects on coastal fisheries.
- Compile methods used for data collection for Lessepsian species, as part of fisheries data collection programs, during experimental trawl surveys or surveys on board of commercial fishing vessels and provide recommendations for their standardization.
- Update list of Lessepsian species caught by fishing gears.
- Continue development of the Web Data Base of literature and legislation relevant to Lessepsian species, including brief reviews of key Lessepsian biology, distribution and fisheries.

### **Lebanon**

34. The Lebanese delegation presented an extensive list of requests with specific details and actions required to be funded by the project. The project and the participants appreciated the requests from Lebanon in order to improve their national capacity in managing fisheries. The requests submitted by the Lebanese delegation include the:
- Fishing Licensing System/MedFisisVessel Register (in process)
  - Catch Assessment Pilot (in process)
  - Stock Assessment Pilot (MoU with CNRS)
  - VMS Pilot
  - Training on Fishing Gears
  - Trials on new and modified fishing gears
  - Web-based Socio-economic survey (GFCM Task 1.3)
  - Web-based Vessel Register
  - Task 1 data reporting
  - Basic training in stock assessment for administrators and managers
  - Feasibility study for new fishing vessels designs and/or new vessel building materials
  - Monitoring & Control (M&C)
  - Fishermen education/training
35. The project's coordinator commented that regarding the training in fishing gears, some aspects were done during the mission on control and inspection. Some others will be done during the training of the catch and effort assessment survey.

36. She also added that, with regards to the socio-economic survey, not all activities can be web based, especially the socio-economic surveys. The socio-economic consultant expressed his belief that socio-economic data collection belongs to the general data collection strategy. In order for the data to be compatible and comparable, we have to follow the same methodology. Regarding the web-based data collection, he expressed his concerns about the automatic system. There is the need to clarify what web-based means and how data will be collected.
37. The Lebanese delegation noted that there are not enough personnel for data collection and that is why software assisted data collection is necessary. He also suggested that a possible solution could be for fishermen to go to the office. On the other hand, the project's coordinator noted that a relationship must be built between the interviewer and the interviewee. They both agreed that they have to find and agree on a good and easy way of data collection in order to save time and effort. Finally the socio-economic consultant commented that more info on this matter will be available at the end of the pilot study.
38. With regards to the stock assessment training for managers, the project's coordinator suggested to organize a regional training and/or collaboration with the GFCM. Regarding the education for fishermen, she suggested to consider it at a later stage of the project, probably for next year.
39. The FAO – FIRF coordinator expressed concerns about upgrading the fleet in Lebanon, with regards to the issue of overcapacity and economic losses. Upgrading in order to achieve a higher level of efficiency, as well as considering the optimum level of capacity.
40. The project's technical officer commented that the vessels in Lebanon cannot navigate beyond 6-8 miles. They are not certified or equipped. The aim is that fishing effort is redistributed from the coast areas to the deeper waters. The size of the vessels should not be increased. He also noted that there are concerns regarding safety and hygienic conditions as the vessels are not well equipped (e.g. lack of safety and ice storage equipment).
41. The socio-economic consultant added that the development of the small scale fishing vessels by improving the efficiency including the hygienic and safety conditions of these vessels could be considered as a challenge for this kind of fishery, which in the absence of the trawl activities (which are illegal in the Lebanese territorial waters), an artisanal type of modern fishing in the Mediterranean could be developed.

### **Gaza Strip and West Bank**

42. The delegation of Gaza Strip and West Bank presented their fisheries sector, which is basically restricted to a small fishing area in the waters off the Gaza Strip. The requests



and actions required to be funded by the project were presented according to the components of the project. The project and the participants appreciated the requests from Gaza Strip and West Bank in order to improve their national capacity in managing fisheries. The requests submitted by Gaza Strip and West Bank (GSWB) include:

### **Component 1-Institutional Strengthening**

- Promotion of the universities to access in the fisheries researches.
- Assessment of the fishing gears
- Appraisal of the Fisheries Departments in Palestine
- Review of the socio-economic situation of the fisheries sector in Palestine
- Supply of Basic Equipments for inspection and control

### **Component 2 - Staff Training and Development**

- Fisheries-dependent data collection pilot survey in Palestine
- Training program for collection of survey data at sea
- Long training for fishing gear technique
- Long training for fishing boat construction

### **Component 3 - Data Collection and Analyses**

- Fisheries-dependent data collection pilot survey in Palestine
- Update of the licensing system in Palestine
- Preparing of fish classification guide for Palestine

### **Component 4 - Increased Participation and Cooperation**

- Facilitate the participation of Palestine with the other FAO regional projects
- Continues participation in EastMed project's committees

43. The project's coordinator emphasized the difficulties to reach GSWB which is not only related to security issues but also to the financial constraints of not allowing staff to have

long term contracts. She also noted that the proposals of Gaza Strip and West Bank should be prioritized and implemented in steps taken into account the funds available.

44. Regarding the appraisal of the Fisheries Departments, the coordinator mentioned that the appraisal has already been done by FAO and that there is already an appraisal report conducted in 2011 by an FAO consultant titled: “To assess the current situation of the fisheries sector in WBGS and identify feasible opportunities for FAO interventions to support the sector at the technical and institutional levels”. The representative of Gaza Strip and West Bank responded that this report is not considered by the Authorities as complete. He also emphasized that a better geographical balance in the project’s activities should be sought in order to involve all the countries concerned, including GSWB. In particular, specific activities in GSWB should be planned and carried out because only the participation in activities outside GSWB has been conducted so far.
45. With regards to the training on board, the project can support experts during surveys at sea.
46. With respect to the training on fishing gears, the FAO CopeMed representative informed the meeting that there will be a sub-regional training on selectivity co-organized between CopeMed and GFCM and which aims to organize a short training course on fishing technologies and selectivity. The Greek delegation commented that it is not easy to train experts on fishing technology. Regarding the request of GSWB, it would be better to propose a list of persons with a specific background, who could be supported by EastMed to participate in such courses.
47. Concerning the identification plates, the project’s coordinator highlighted that after Egypt and Lebanon, GSWB will follow for the distribution of those plates.
48. Finally, the FAO – FIRF operations officer confirmed that FAO HQ are putting efforts so that staff of the FAO Eastmed project will be capable to travel to GSWB.

## **Turkey**

49. The Turkish delegation mentioned that the two proposals, the trawl survey and the pilot study on data collection have already been discussed in detail with the EastMed project and are already included in the work plan. The Turkish representative also highlighted that further technical details need to be discussed before the implementation of the pilot study on data collection.

## **Development of the project`s programme for the next period**

50. The coordinator of the project before presenting the work plan, she made a number of administration interventions. In particular, she pointed out how important it is that the focal points promptly reply when an issue is raised. For the proper functioning of the project sometimes, time can be very important. She also highlighted the task of the focal points to nominate the proper people in order to participate in the meetings. They should have to think carefully before the nomination, particularly when nominating scientists to participate in scientific meetings (training courses).
51. The coordinator of the project also raised the issue of the itinerary of the travelers who have to think carefully before sending it, because when a reservation has to be changed the whole procedure must start from the beginning, which is a time-consuming process and affects many people who are responsible for the issuing of the tickets.
52. The participants were finally informed that there is an agreement between FAO and specific hotels in some cities, which allows for the reduction of the DSA up to 40% or 60% (it depends on the city) when the participants of a meeting are staying at these hotels.
53. Based on the discussions and proposals submitted by the countries before the meeting, the tentative work plan for the next intersessional period was introduced by the EastMed project`s coordinator (Annex V). It was underlined that the proposed work plan for the future period aims to consolidate the achievements of the past years and provide technical assistance at national and sub-regional level during the coming year. It is also based on the scientific cooperation established within the framework of the project and FAO - GFCM. In principle, all the activities proposed were considered of high relevance
54. The Egyptian delegate highlighted that Egypt is the second country after Italy in the production of clams and mollusks in the Mediterranean. However it has to be strengthened in the exploitation and marketing of the resources. He also stressed out the component of socio-economy and the need to train people on socio-economic data collection and analysis. Another significant issue for Egypt is the capacity building of the country on inspection and control and the institutional development of a relative unit.
55. The Egyptian delegate commented on the need of Egypt to be supported for making experimental trials on the use of the 40 mm square mesh size in the trawler codend. He also said that any trial should only be conducted by a governmental scientific institution like the NIOF. The project`s coordinator commented that this initiative could be conducted with the collaboration and support of the project.
56. The delegate from Lebanon referred to the need of training the managers on stock assessment and the further training on inspection and control. The technical officer of the

Project pointed out that for further activities on inspection and control, an institutional capacity development in terms of human resources, legislation and structure should be prioritized.

57. The Lebanese representative highlighted the importance of stakeholders in decision making. This statement was fully supported by the coordinator of FAO - FIRF. On the EAF implementation, the FAO – FIRF coordinator stressed out that key steps are needed for fisheries management. She particularly mentioned to importance to involve real case studies which should be acknowledged and elaborated by stakeholders. This process has been followed in many other areas and FAO – FIRF coordinator offered their experience to provide technical assistance in implementing similar cases. Finally, she highlighted the importance of taking measures by the use of the existed data according to the precautionary approach. This statement was greatly appreciated by the participants.
58. The Greek delegation expressed its reservation regarding the table included in the technical document of EastMed No 8, in Annex IV titled “List of candidate shared stocks in the Eastern Mediterranean”. The delegation commented that some of the data reported are not accurate and further evidences are needed for the definition of these stocks.
59. After the wide discussion and comments on the content of tentative work plan, the committee agreed on the programme of activities proposed for the coming period. Some specific elements were pointed out with reference to some of the activities, related outputs and proposals received from the countries.

## Work plan for the 3<sup>rd</sup> year of the project

(April 2012 – March 2013)

### *Institutional Strengthening*

The Project will continue to support the needs in the Fisheries Departments, in particular:

60. **Web-based licensing system in Lebanon**

At the 2nd Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011), it was agreed to develop in Lebanon a functional computerized licensing system (MOA LSDB) and populate the licensing database. During the intrasessional period there was a local call for tender, which is currently under evaluation. Once the software will be developed and provided to the MoA, training will be conducted to the MoA staff. Synergy with MedFisis has been also taken into account. The licensing system will be the basis for the administration to monitor fisheries and will be used to feed data for future data collection activities on catch, effort, socio-economic and biological surveys. The project will support the whole process.

61. **Appraisal of the fisheries departments in GSWB**

An institutional appraisal and analysis of the management framework of the Fisheries Departments has been planned to take place for the Gaza Strip and West Bank. This analysis is needed in order to develop a structure that should be able to produce and deliver the evaluation of the stocks and fisheries as well as to provide integrated, participative and multi-disciplinary fisheries management options. The appraisal will also include the socio-economic situation and the existing license system. The project will also procure upon request IT equipment to GSWB so that landings and effort data, which are being collected, can be transferred to databases.

62. The project will procure basic equipment for monitoring and control (e.g. gauges for measuring mesh sizes, fish measuring boards, field fish identification plates) for GSWB. This equipment will be provided after the training course on control and inspection.

63. **Feasibility study for new fishing vessel designs and/or new vessel building materials:**

The existing artisanal Lebanese fleet is practically wooden with a couple of metal vessels and some fiberglass vessels (recreational-type adapted to fishing). The navigation capabilities and safety records of the wooden locally designed vessels are questionable, as well as that for the existing fiberglass and metal ones. Furthermore, their ability to explore new fishing grounds in order to decrease the pressure on immediate coastal fishing zone (< 3miles from coast) is limited. Thus, there is a need to explore, through international and local expertise, the feasibility of introducing new “certified” vessel designs. The Project will support the development of such a feasibility study.

64. **Support the maintenance of the fleet register**

On the basis of the work and results of the MedFisis project, the EastMed project will assess and develop further actions, if and as necessary, in supporting the capability of countries to maintain a functional fleet vessel register in the medium to long term.

65. **Develop of a software application for the socio-economic data in Lebanon**

Once the questionnaire on the socio-economy is finalized, a web-based software application for the data entry and the estimation of socio-economic parameters. The Project can support the development of the software required.

*Staff Training and Development*

The project will continue to support on-the-job training, national and sub-regional workshops and opportunities for the staff of the Fisheries Departments to participate in regional management meetings, in particular:

66. **CAS in Lebanon – Training course**

In the North of Lebanon, catch, effort and some biological data are collected by the University of Balamand. After consultations with the MoA, a LoA is going to be prepared between FAO and the University of Balamand, in which the University will be responsible for the training of the staff of the Ministry which will conduct the data collection on catch and effort. During the training course, time will be also allotted for the description of the most important commercial species and fishing gears used.

67. **Training on control and inspection in Gaza Strip**

Training course on fisheries inspection and fish quality control for GSWB: In Collaboration with FAO-GFCM and based on the experience obtained during the implementation of similar courses in Egypt and Lebanon, the project will organise a short course/seminar for fisheries inspectors from Gaza Strip and West Bank. The administration has the role of safeguarding the sustainability of the fisheries resources and secures the safety of fisheries products. The enforcement of fisheries regulation relies on the authorised fish inspectors and therefore the need for further training has been identified. The course will be intended to upgrade the knowledge and skills of the fish inspectors and strengthen their capacity to train new inspectors.

68. **Training on inspection in Lebanon**

Monitoring and control: After the successful implementation of the seminar on inspection and control, Lebanon requested the support of the project to make a step forward by training the inspectors on the field and particularly on board of the petrol vessel which will shortly be available.

69. **Experimental trials for new fishing techniques in Lebanon**

Within the framework of the project “Assistance to the artisanal fishery in the port of Naqoura” financed by the Italian Cooperation, the National centre for Scientific Research (CNRS) is carrying out a series of activities in order to establish a pilot testing unit for the use of new fishing techniques in Lebanon. The project is providing technical assistance to build the capacity of the staff of CNRS in terms of data collection and analysis and train the fishers on the correct use of new fishing techniques. The activity has started during the intersessional period and will continue during the next period.

70. **Exchange training programme for collection of survey data at sea**

This will be an on board training programme. The countries participating in the project will identify training opportunities in their regular research activities and, through the project, will offer these possibilities to the other countries and institutions. The proposed training program will be tentatively offered during the second semester of 2012.

71. **Training on catch/effort data, socio-economic and biological data collection in GSWB**

The capacity building in GSWB is continuously one of the most important tasks of the project. Unfortunately, up to now, the problems encountered either in the area or in the security procedures required to reach the region, did not allow the staff of the project to support in depth the various needs of the GSWB. It is thus foreseen that during the 3rd year of the project and upon the proper preparation, a mission, during which training on data collection and data analysis will be conducted, will be held.

72. **Training on socio-economics in Egypt**

After consultation with the fisheries administration in Egypt it was agreed to incorporate the collection of socio-economic parameters under the framework of the running pilot survey. During the past missions to Egypt, an understanding of the socio-economic situation in Egypt was carried out and a questionnaire was tested and adapted to the local needs. It is foreseen that training with the support of the project will be given to the data collectors in order to conduct a socio-economic survey. The proposal is based on the document *EastMed CC3/info18* (Annex VI) .

73. **Development of the clams fishery in Egypt**

According to the knowledge gathered during visits of the staff of the project, most of the Egyptian production is conducted by fishing activities by hand and takes place at depths from 0-1.5 m. This production is considerably high when one considers that it is only derived from very shallow water. After consultations with the administration, it was agreed to support Egypt in exploring the possibility to assess the clam resources and then assist the country in developing this fishery, both in terms of management at sea, value added of the product and marketing. This should be a joint activity between GAFRD, fishermen co-operatives, scientific institutions (e.g. NIOF) and FAO – EastMed. The proposal is based on the document *EastMed CC3\_info 17* (Annex VII)

74. **Training on data collection in Turkey**

Within the framework of the pilot survey on data collection which is planned to be conducted in a pilot area during the 3rd year's activities in Turkey, training will be carried out. All the staff that will be involved in the pilot study will be trained by the EastMed project. The training will take the form of lectures and training in the field. Visits to other countries in which catch and effort data collection systems are routinely conducted could also be arranged. This would help the staff involved to understand how the complete data collection system works from the landing port to the data entry and data analyses, with hands on practical experience. The training will start once the sampling scheme (stratification, number of samples, etc) and methodologies for the processing of data have been agreed. The training and/or visit to a country can start one month after the sampling scheme has been finalized. The proposal is based on the document *EastMed CC3\_info 19* (Annex VIII)

75. **Educational seminar for the preparation of fish traditional products to the fishermen women of Kalymnos**

The aim of the present proposal is to educate the fisherman women's of Kalymnos, Greece for the preparation of traditional fish products using canning technology after thermal process and preservation in saltwater or sunflower oil. The education will be done through a seminar to be organized in the island, for the utilization of low value fish such as albacore (*Thunnus alalunga*), atlantic bonito (*Sarda sarda*) or other tuna like species, fished by small scale fishery in Kalymnos island. During the seminar basic knowledge on chemical, microbial and organoleptic control will be presented.

76. **Training course on stock assessment methods**

A general need for training on stock assessment has been indicated in several cases by the countries participating in the project. The possibility of having training sessions prepared by the project and/or advantages which can be taken of training courses organized by other FAO Mediterranean regional Projects and/or Mediterranean initiatives will be considered.

77. **Training course on EAF**

According to the recommendations and outputs of the workshop on management (Athens, 15-17 March 2011), it has been agreed that the project will support the organization of a training course on Ecosystem Approach to Fisheries (EAF). The course would train managers and scientists on EAF principles in the management process. However, due to other commitments in the countries, it was not able to carry out the course, which is postponed for the 3rd year taking first into consideration the funds availability. Synergies with other FAO Mediterranean Regional Projects will also be sought.



## *Data Collection and Analyses*

### 78. **EastMed Survey at Sea in the Mediterranean Sea.**

During the meeting of experts on the finalization of the details on the coming survey at sea, which was held in the intersessional period, it has been decided to use a modified protocol of the MEDITS. The survey will be carried out in late May – early June 2012<sup>1</sup> in the region south of Turkey covering both national Turkish and international waters. The details of the provision of the Turkish research vessel will be reflected in the Memorandum of Understanding which will be shortly signed<sup>2</sup> between FAO and the Institute of Marine Science, Middle East Technical University in Mersin (ISM METU-Turkey).

### 79. **4<sup>th</sup> mission of the fisheries-dependent data collection pilot survey in Egypt**

Within the framework of the running fisheries-dependent data collection pilot survey in Egypt and based on the LoA, the project is supporting the biological sampling, which is expected to be completed by the end of the year as well as it is providing technical assistance to the collection of catch and effort. During the 3rd year of the project it is expected to have a follow up of the survey which will be conducted by the last mission to Egypt in the 2nd semester of 2012. At the moment scientific supervision is taking place by the National Institute of Oceanography and Fisheries of Egypt on the collection and analysis of biological data. Training, equipment, mobilization of staff and contractual arrangements with other agencies and institutions should also be considered and quantified to the largest extent possible.

### 80. **Data Collection Protocol in Arabic**

A technical document incorporating guidelines, data collection forms and operational modalities for the pilot implementation has already been prepared in English. During the 3rd year this Protocol will be translated in Arabic. This will ensure better implementation of the data collection, not only during the pilot survey but also in the future.

### 81. **Definition and pilot application of a monitoring system aiming to the collection of socioeconomic parameters in small scale fishery of Greece**

Greek fisheries are characterised by wide spatio-temporal variation and scattering of fishing activity along the extensive Greek coastal zone. The monitoring of fishing activities and the collection of data related to socio-economic aspects faces some difficulties due to the large number of small vessels and the extensive network of small ports. In order to resolve this problem a particular monitoring system should be designed and applied to avoid high sampling effort. A large part of the Greek fleet, does not keep

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<sup>1</sup> The surveys at sea scheduled to be carried out in late May early June 2012 for technical and administration reasons of the hosting country have been postponed. If any possibility arises to conduct the survey in the future, the project will be informed in due course.

<sup>2</sup> The signing of the memorandum has been postponed

financial books on income-expenses since they are taxed based on a fixed rate and consequently there is not an existing source of relative data.

82. Greece asks the technical support of EastMed for the definition and the pilot application of this system for the monitoring of socio-economic parameters.

83. **Data collection in Turkey – pilot study**

Under the framework of the data collection in Turkey, which follows the EU DCF and once the sampling scheme is defined and the training of the collectors is finalized, the project can support the collection of catch, effort biological and socio-economic data collection on a pilot basis.

84. **CAS in Lebanon – pilot sampling**

In the North of Lebanon, catch, effort and some biological data are collected by the University of Balamand. During the intersessional period and based on mission which took place in September 2011, it was agreed to develop a pilot activity on the collection of catch and effort data and to train the staff of the Ministry for this activity. The catch and effort data collection should cover the whole Lebanese coast. The training on biological data collection will follow but probably will be conducted during the next intersessional period. It is also noted, that during the training course, time will be also allocated for the description of the most important commercial species and fishing gears used.

85. **Pilot study on data collection in GSWB**

In case that the project's staff will manage to conduct the mission to GSWB in order to implement a pilot study on the collection of catch, effort, socio-economic, as well as biological sampling, it will also support the biological sampling on a pilot basis as well as the elaboration of the data.

86. **2<sup>nd</sup> Meeting of the Permanent Working Group on stock assessment (PWGSA)**

During the previous intersessional period, the 1st meeting of the Permanent Working Group on Stock Assessment (PWGSA) in the Eastern Mediterranean was carried out. During that meeting, the candidate shared stocks were identified. An inventory of existing data required to undertake a stock assessment was made and the various information gaps were defined together with the most adequate stock assessment models to be used in the Eastern Mediterranean region. It was also decided to conduct a 2<sup>nd</sup> meeting of the Permanent Working Group during the 3rd year of the project. The Terms of Reference are annexed (Appendix I).

87. **Sub-regional working group on deep-water biological resources**

The project will create a sub-regional working group targeting on the deep-water biological resources and ecosystem assessment and management. The experts from the participating countries can discuss, exchange ideas and collaborate in order to improve their knowledge on deep-water resources, to identify gaps in data, assessment and

management and to help the establishment of a future management of these resources in the area. The Terms of Reference are mentioned in Appendix II.

88. The project will then organize a workshop with invited scientists and relevant stakeholders in the area, with the scope to have an exchange of views and experiences related to the deep-water resources exploitation, assessment and management.

### *Increased Participation and Cooperation*

89. **Strengthening the cooperation with the other FAO Regional Projects**

The existing cooperation with other FAO Regional Projects (RP) AdriaMed, MedSudMed, CopeMed II and ArtFiMed will be further strengthened. In this context, synergies are foreseen with the Projects, also taking into consideration the indications collected during the internal coordination meetings among the Projects. Several other coordination meetings among the Mediterranean Regional Projects have already been planned for 2012 in order to consolidate and coordinate common activities. Training activities will be coordinated among all the Projects, in order to avoid duplication or overlapping of activities. The participation of other RP experts in training courses organized by EastMed and vice versa will be foreseen. The preparation of common informative material (leaflets, CD-rom, etc.) that can improve the visibility of the RPs in the Mediterranean area is foreseen. Moreover, the project will participate in the Coordination Committees of the RPs where additional synergies will be identified.

90. **Seminar on the utility of data in fisheries management**

Basic training on the utility of scientific data for administration and managers: The administrators and managers of the MoA in Lebanon lack of knowledge in stock assessment and other data analysis procedures. Thus there is a need to provide not only this knowledge, but also to make understandable the utility of fisheries data and how those data can be used in management. The project can support a two-day seminar which may be conducted for the whole project region.

91. **Country Participating Working Group**

The project will provide the necessary support to facilitate the meetings of the Country Participating Working Groups (CPWGs). The establishment of the CPWGs, which was agreed during the 1st Coordination Committee meeting (Athens, Greece, 19-20 April 2010), gives the chance to stakeholders to participate in the process of elaborating management systems, including the development and application of management plans.

92. **Support Government staff to attend and fully participating in GFCM meetings**

The project will continue to strengthen the international and regional cooperation at Mediterranean level with the GFCM and its related bodies, according to budget availability, (SAC, Sub-Committees, Working Groups, CAQ) through the preparation of scientific contributions for GFCM events, the participation of experts from the EastMed

countries in GFCM events and through support to the countries to be compliant with the GFCM requirements.

93. **Fish identification guide**

During the 2<sup>nd</sup> Coordination Committee Meeting it was agreed to prepare for the work on the field plastic cards with the most commercial species in the Eastern Mediterranean region. During the intersessional period the material was collected, which will be reflected in the cards with species figures in colour accompanied by the scientific name and the common name in English and Arabic.

94. **Technical Meeting on Lessepsian**

From fisheries research and data collection projects, carried out particularly in the South-Eastern Mediterranean new data sets on Lessepsian species have been collected. However problems with the records of commercial catches of Lessepsian as well as the evaluation of the discarded ones still exist. Thus a second technical meeting was proposed to be supported by the EastMed Project within the work plan for the 3<sup>rd</sup> year activities, under the following Terms of Reference:

- Explore and report currently available data on Lessepsian species landings from fisheries across the Eastern Mediterranean.
- Provide a summary of the main conclusions of the Technical document reviewing available literature on biology, ecology, fisheries and toxicity of *Lagocephalus sceleratus* and suggestions on its potential utilization and the confrontation of its negative effects on coastal fisheries.
- Compile methods used for data collection for Lessepsian species, as part of fisheries data collection programs, during experimental trawl surveys or surveys on board of commercial fishing vessels and provide recommendations for their standardization.
- Update the list of Lessepsian species caught by fishing gears.
- Continue development of the Web Data Base of literature and legislation relevant to Lessepsian species, including brief reviews of key Lessepsian biology, distribution and fisheries.

95. **EastMed portal ([www.faoeastmed.org](http://www.faoeastmed.org))**

The contents, and consequently the EastMed portal, will continue to be updated and further developed in order to make it always easily accessible in areas of interest to website users.

## **Appendix I TOR for the next meeting of the EastMed PWGSA**

- i) to compile a list of surveys and fishery-dependent data collection projects carried out in the last 10 years in each country, summarizing information on sampling area, periods, sampling design, type of data collected, data collection methodology, gear characteristics;
- ii) to compile a series of raw data from fishery dependent and/or fishery independent (e.g length, catch effort), which could be used for stock assessment
- iii) to provide advice on how to increase the standardization between surveys and to discuss the possibility and technical requirements to expand the MEDITS survey to the other countries in the region;
- iv) to provide sampling protocols or guidelines for stratified data collection based on the fleet sampling approach, taking into account the requirement for compilation of the GFCM task I matrix;
- v) advice on how to implement a spatial (e.g. landing ports, fishing grounds, GSA, etc.) and temporal sampling (tri annual sampling, annual sampling, quarterly, monthly, weekly);
- vi) advice on how to collect commercial size categories of the species caught (e.g. small, medium, large fish), how to sample mixed boxes (e.g. shrimps) and how to sample by-catch of commercial species caught by gears which do not directly target the species, discard sampling of commercial species.

**Appendix II TOR for the Sub-regional working group on deep-water biological resources in the Eastern Mediterranean (GFCM GSAs, 19, 20, 22, 23, 24, 25, 26, 27, 28)**

- i) To describe the fishing fleets (e.g. trawlers, shrimp traps) which target deep water demersal resources on the continental slope (500 – 800 m) in the Eastern Mediterranean, including the management actions currently in force.
- ii) To compile a list of studies and surveys on deep water demersal resources in the Eastern Mediterranean.
- iii) To present any data on the distribution and biology of the main species targeted by the trawl fishery (e.g. *Aristaeomorpha foliacea*, *Aristeus antennatus*), in the Eastern Mediterranean.
- iv) To present any data on the distribution and biology of the main species targetted with other fishing gears (e.g. shrimp traps for *Plesionika* spp).
- v) To identify the shared stocks on the continental slope in the Eastern Mediterranean.
- vi) To determine the problems in the collection of catch, effort and biological data.
- vii) To provide solutions and methodologies on how the problems in data collection could be solved.
- viii) To provide a work plan within the framework of the EastMed project on which actions are required in order to improve the management of the deep water resources.

### **Any other matters**

96. The Greek delegation expressed its reservation regarding the table included in the technical document of EastMed No 8, in Annex IV titled “List of candidate shared stocks in the Eastern Mediterranean”. The delegation commented that some of the data reported are not accurate and further evidences are needed for the definition of these stocks.
97. The FAO – FIRF operation officer expressed his thanks to the donors for their financial support to the project. However he highlighted that the project due to the economical recent constraints faces difficulties to complete all of its objectives. The representative of Greece acknowledging the importance of the project in the region pointed out the support of Greece to the project. However she stressed that the financial reductions done for 2012, which will follow as such the next years, are totally due to the economic crisis of Greece.
98. The representative of EC informed the Committee that DG-MARE has been approached by the Greek authorities to find out whether additional contributions could be provided. He then notified that it might be explored only after an official request. He also informed that high level officers from DG-MARE participating in a recent meeting with EastMed donors have been impressed by the outcomes of the project, which may show the need for supporting its continuation.
99. The representative of Italy on the basis of its satisfaction from the project outcomes and taken into consideration the economic crisis of Greece informed that they are exploring the possibility to release a bigger percentage of the Italian contribution. He added that the request is under examination waiting for a relevant decree.

### **Date and venue of the next Coordination Committee meeting**

100. At the invitation of Egypt, the committee decided that the venue of the next Coordination Committee meeting will be Egypt. The proposal was very welcome by the participants.

## **ANNEXES**



## Annex I List of participants

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## **Annex II Agenda**

### **Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012**

#### **Annotated Draft Agenda**

#### **Day 1 :Thursday 19 April, 9:00-18:00**

##### **1. Opening of the meeting and election of the Chairperson**

- Welcome by the Italian authorities
- Introduction of the participating countries (Cyprus, Egypt, Gaza Strip and West Bank, Greece, Italy, Lebanon, Turkey), donors, international organisations (FAO, GFCM) and other participants
- Designation of the chairperson

##### **2. Adoption of the agenda**

##### **3. Report on the project's progress**

- Presentation of the EastMed project's 2<sup>nd</sup> year activities

*Information will be given on the progress and achievements of the project since the last Coordination Committee Meeting. Emphasis will be put on the activities and meetings showing the strong collaboration between the EastMed project and participating countries. The project's initiatives to seek additional strategic alliances with other projects and GFCM will also be mentioned.*

##### **4. GFCM activities for the next intersessional period**

- Presentation of the GFCM scientific and technical activities of relevance to the project

##### **5. Proposals of national activities in the framework of the project**

- Presentation of countries' proposals to be carried out at national and sub-regional level

*National focal points are invited to present, for adoption by the Coordination Committee, national and sub-regional activities requiring the attention of the project.*

## **6. Project's Program for the next period**

- Presentation of the work plan for the next period

*Following the proposals made by participating countries, the work plan for 2012 will be discussed and finalised. Other relevant issues, which may come up during the meeting will also be discussed. The Committee will be asked to provide feedback on the work plan presented.*

## **7. Any other matters**

- Discussion on the recent financial problems of the project

## **8. Date and venue of the next Coordination Committee meeting**

**Day 2: Friday 20 April, 12:00-14:00**

## **9. Adoption of the report**

### **General information:**

**Coffee breaks : 11:00 - 11:30**

**Lunch breaks : 13:00 - 14:30**

## Annex III Report on the intersessional activities of the project



Scientific and Institutional  
Cooperation to Support  
Responsible Fisheries in the  
Eastern Mediterranean



*FAO EastMed: CC03/02*

### **Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012**

#### **Report on the Intersessional Activities of the Project**

(April 2011 – March 2012)

#### **FAO EastMed Working Document**

##### **Introduction**

This document summarizes the main activities carried out by the Project EastMed from April 2011 – March 2012, including workshops, training, research activities and the technical assistance provided to the countries; as well as the cooperation established with the GFCM, the SAC and Sub-Committees and other relevant institutions. The work programme and recommendations of the 2<sup>nd</sup> coordination committee meeting of the EastMed Coordination Committee (Antalya, Turkey, 5-6<sup>th</sup> April 2011) were implemented.

The activities carried out during the inter-committee period comply with the methodological framework of the Project and its mandate for this phase. This report details the main outputs of the activities of the Project and the results achieved with direct reference to the following Project Components:

- 1) Institutional strengthening.
- 2) Staff training and development.
- 3) Data collection and analysis.
- 4) Increased participation and Cooperation.

## **Project Component 1 - Institutional Strengthening**

*To undertake institutional analysis and needs assessments of Fisheries Departments and provide recommendations for change and support*

This component will ensure that the Fisheries Departments of the Eastern Mediterranean countries have the institutional structure, financial capacity and technical competences necessary to undertake the fundamental elements of fisheries management, and can collect fishery statistics, perform fisheries assessments and characterize marine ecosystems.

The various technical meetings which were carried out during the reporting period gave the opportunity to further strengthen the relations and interactions with and among the participating countries. The following activities took place:

➤ ***Mission with the fisheries administration and representatives from the scientific institutions in Egypt***

The mission to Egypt on the 16<sup>th</sup> of April, the discussions between Fisheries administration and representatives of the scientific Community led to an increased participation of the scientific institutions in the various activities of the project and their contribution in the activities of the fisheries administration, which constitutes one of the cornerstone for capacity development.

➤ ***Assessment of the fishing gears in Lebanon***

The assessment of the fishing gears in Lebanon was carried out from the 18<sup>th</sup> to the 22<sup>nd</sup> of July 2011. The mission was conducted by an FAO EastMed Consultant with a particular expertise on fishing technology and the FAO EastMed project Technical Officer. The main objectives of the mission were to make a review of the main fishing techniques in Lebanon and to propose ways how to re-structure the fleet, including proposals for a change in the associated fisheries legislation. The experts visited the main landings ports, and conducted interviews with fishers, fishing gear suppliers, fishmongers and officers from the Ministry of Agriculture. The main findings show that several characteristics which include restricted continental shelf, artisanal gears and vessels, lack of electronic equipment (e.g. GPS, fish finder) and lack of freezing facilities, result in fishing activities between 3-6 nautical miles from the coast. Most of the fishing gears use small mesh sizes and hooks which result in the presence of small sized fishes and juveniles in the landings. This therefore requires the improvement of fishing techniques and any associated fisheries legislation. The priority should be to improve the exploitation of fisheries resources by using more sustainable fishing gears and increase the exploitation of offshore waters and at the same time reduce the fishing pressure from coastal waters.

- ***Appraisal of the Fisheries Departments in Egypt and Lebanon***  
**At the 2<sup>nd</sup> Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011) it was agreed that an institutional appraisal and analysis of the management framework of the Fisheries Departments would be conducted in Egypt and Lebanon.** The first mission was conducted in Egypt from the 30 May and 7 June 2011, while the second mission was conducted in Lebanon from the 19-23 September 2011. In both missions the services of an international consultant were requested to accompany the project coordinator and the national staff from each respective country. The information collected included a) how the Mediterranean marine fisheries are managed; b) what is the state of the institutions which manage fisheries; c) how they are organised; d) how fisheries monitoring and research activities influence fisheries management decisions and; e) what is the involvement of stakeholders in fisheries management. The appraisal included suggestions on how the system can be improved so that it can be in line with a management system based on an Ecosystem Approach to Fisheries management (EAF).
  
- ***Review of the socio-economic situation of the fisheries sector in Lebanon***  
The Socio-Economic Consultant of the EastMed project has conducted a review of the socio-economic situation of the Lebanese fisheries sector from 22-29 September 2011 in order to identify in which sections the EastMed project can contribute to the fisheries socio-economic aspects. The consultant met and interviewed some significant stakeholders. The main goal of the mission was to understand the management and the organization of the fisheries sector, with particular reference to the economic and commercial aspects. Information was also collected on the system of loans with respect to the fisheries sector as well as on the vessel licensing system. The consultant also visited some cooperatives, including their landing ports and selling points, some gear suppliers and a factory for the production of fishing vessels. In the central fish market of Beirut the consultant interviewed several fish traders. Finally discussions with the Ministry of Agriculture showed that: a) no socio-economic data on the fisheries exist; b) there is a strong domestic demand for fish products, which is only partially satisfied by internal production; c) prices of seafood products are on average higher compared with the other Mediterranean countries; d) the vessels are not adequate for offshore navigation including fishing and there it is extremely difficult to obtain the international standards of maritime safety and e) it is foreseen that the Ministry of Agriculture will probably develop projects aiming to help the fishers to improve the safety and efficiency standard of their vessels.
  
- ***EastMed contribution to Data Collection in Turkey***  
The Project Co-ordinator, Technical officer and Socio-Economic consultant travelled to Ankara, Turkey (11-12 October 2011) in order to discuss possibilities for the contribution of the EastMed Project to support data collection in Turkey. The country would like to start comprehensive data collection, first in order to have an accurate estimation of the catches and secondly in order to undertake stock assessments on a routine basis. After one day of discussions a tentative work



plan was developed in order to conduct a pilot survey to undertake fisheries data collection in Turkey. The work plan describes in a stepwise approach all the tasks required in order to start a pilot study on data collection and especially describes the practical details. Following this meeting the Turkish administration requested more details on how a pilot data collection could be conducted, and EastMed prepared a proposal to conduct a pilot activity on data collection in Turkey (see CC3/info 20)

➤ ***Supply of Basic Equipments for inspection and control to Egypt, Gaza Strip and Lebanon***

Basic equipment which is used to undertake fisheries control and inspection was supplied to Egypt and Lebanon. The equipment consisted of measuring tapes, which can be used to measure lengths of fish for minimum size regulations, lengths of nets and large mesh sizes, and vernier calipers which can be used to measure lengths of crustaceans and bivalve molluscs for minimum landing size regulations and for mesh and hook sizes of nets and hooks respectively. A total of 35 measuring tapes and 35 vernier calipers were supplied to Egypt, 10 of each to Gaza Strip and 12 of each to Lebanon.

## **Project Component 2 - Staff Training and Development**

*National and sub-regional workshops and on-the-job training will be organized.*

Under this component it is expected that the capabilities of the national administrations staff to undertake the various components of regionally consistent multi-disciplinary fisheries appraisal (including stock assessment) and management will be developed. The project will offer on-the-job training, national and subregional workshops and opportunities for the staff of the fisheries administration to participate in regional management meetings. This will be undertaken on a need by need basis on issues identified by the project or requested by the Fisheries Departments. The following activities took place:

➤ ***Fisheries-dependent data collection pilot survey in Egypt***

The second mission of the pilot survey on the fisheries-dependent data collection in Egypt, was conducted from the 29th of May to the 8th of June 2011. During the mission the FAO EastMed team followed the on-going data collection scheme, assessed the difficulties in its implementation and provided inputs to improve it. During the same mission, a training course on data collection was carried out in the west part of Egypt (Alexandria, 4-8 June 2011). After this mission another laboratory was set up in the west part of the delta in the port of Maadia. A third mission was carried out in February 2012 to have a follow up and provide technical support in particular after the signing of the LoA between GAFRD and FAO. The final report will encompass all operational and infrastructure aspects of a comprehensive fisheries statistical programme including vessels, catch and effort and biological sampling.

- ***Exchange training programme for collection of survey data at sea***  
 At the 2<sup>nd</sup> **Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011)**, it was agreed to run an on-board training programme based on the availability of the countries.
  - The EastMed project supported an Egyptian and a Lebanese scientist to participate in the 2011 Cypriot leg of the Mediterranean International Trawl Survey (MEDITS) from 10-17 July 2011. The scientists gained valuable experience in the conduction of a demersal survey at sea, and thanked greatly the Cypriot authorities and scientists (including Greeks) who were onboard the research vessel.
  - The EastMed project also supported two Turkish scientists in the participation of the Solemon demersal survey for sole in the Adriatic Sea from 24-30 November 2011. They were gently hosted on the Italian research vessel, and expressed their gratitude to the Italian scientists for the opportunity to get experience from Italy on research surveys at sea.
  
- ***Training Course on Introduction to Fish Stock assessment models***  
 The training course on fish stock assessment models was held in Sliema, Malta from 12-16 December 2011 and it was an initiative of the MedSudMed Project, in cooperation with the other FAO-led Mediterranean fisheries management support projects. Scientists from Albania, Algeria, Egypt, Gaza Strip and West Bank, Greece, Italy, Lebanon, Malta, Tunisia, Turkey attended the course. The course was designed for fisheries biologists working in fisheries centres or other research institutions involved in fisheries monitoring, research and management in the Mediterranean. Overall the participants were satisfied with the quality of the training. To allow the participants to assimilate the methods taught and increase their skills in data manipulation and analyses, it was stressed that training opportunities should be provided every year and on a regular basis in the Mediterranean. EastMed supported the participation of ten scientists from the project area.
  
- ***Seminar on Control Inspection and Good Hygienic Procedures in Fisheries in Egypt and Lebanon***  
 A seminar on control, inspection and good hygienic procedures was conducted in Egypt and Lebanon. In Egypt the course was conducted in 5 separate cities including Cairo, Alexandria, Kafr el Sheik, Damietta and Port Said so that several stakeholders could benefit from the course, which actually was delivered to around 300 people in total. 10 Participants from Gaza Strip also attended the seminar conducted in Alexandria. The seminar consisted in presentations on the utility of fisheries inspection in safeguarding the sustainability of the fisheries resources and to secure the safety of fisheries products. The seminar was intended to upgrade the knowledge and skills of the fish inspectors in the countries and strengthen their capacity and at the same time inform all other stakeholders (e.g. fishers, scientists) about fisheries inspection procedures. More

specifically the seminar addressed the following areas: fisheries regulations, utilisation of equipment for fisheries control, regulations concerning fish control, fish safety and fish traceability, ethics and enforcement procedures in fisheries inspection, awareness on emerging microbiological and chemical risks and good practices in fisheries from the fishing operation to the marketing of fisheries products.

### **Project Component 3 - Data Collection and Analyses**

*Project will assist countries to improve/develop fishing vessel survey, national catch, effort and socio-economic surveys, and ecosystems characterisation.*

This component introduces the fundamentals of fisheries management in terms of building capacity of fisheries departments and other relevant institutions to collect and analyse data and information. The project will assist the countries in designing, improving and implementing national data collection programmes, and will monitor these activities during the last three years of the project. Additionally, the project will carry out experimental fishery resources appraisal surveys, aiming at supporting and developing the capacity of participating countries to undertake more coordinated and cooperative fisheries research activities in support of fisheries management in the Eastern Mediterranean subregion in partnership with the GFCM. The following activities took place:

- ***Fisheries-dependent data collection pilot survey in Egypt***  
Under the framework of the second mission of the fisheries-dependent data collection pilot survey in Egypt, apart from the training which was carried out to the staff of the GAFRD, the project also supports the collection of biological data for one year period (January 2012 to December 2012). Catch and effort had already been started for about a year. During this one year activity, the staff of the project together with the local scientific community will follow the progress of the data collection in order to provide continuous technical support. The project also produced a data collection protocol in order to assist the country in these initial stages of data collection. After the pilot study, the country is expected to have the capacity to continue monitoring the resources without the support of the project.
- ***Data Collection Protocol***  
Under the framework of the running pilot survey on fisheries dependent data collection in Egypt, a data collection protocol was prepared in English, which includes a) sampling methods and frequency of sampling; b) temporal and spatial scales for sampling; c) sampling for market categories; d) basic information on the fleet segments to be sampled; e) logistical and technical problems encountered during sampling and how to avoid or reduce such problems; f) sample storage and laboratory preparation techniques; g) how to collect biological parameters including, length, weight, sex, sexual maturity and

age; h) sexual maturity scales; i) good quality photos of the maturity stages for typical specimens; j) Sampling for hard structures for age reading; k) Template data collection sheets. The protocol will be translated into Arabic and could possibly be circulated to other Arabic countries participating in the project area after relevant adjustments for each country.

➤ ***1<sup>st</sup> meeting of the Permanent Working Group on Stock Assessment***

The first meeting of the Permanent working group on stock assessment was carried out in Demre, Turkey from 27 June to 1 July 2011. The Working Group constitutes a follow-up of the training course on stock assessment methods in Kavala, Greece (21-25 February 2011) and its organization had been agreed during the second Coordination Committee Meeting (Antalya, Turkey, 5-6 April 2011). During the meeting, the candidate shared stocks were identified, which represented the most important stocks for which scientific advice was required. An inventory of existing data required to undertake a stock assessment was made and the various information gaps were defined together with the most adequate stock assessment models to be used in the Eastern Mediterranean region.

➤ ***Update of the licensing system in Lebanon***

At the 2<sup>nd</sup> **Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011)**, it was agreed to develop in Lebanon a licensing system which should be linked with a functional fleet vessel register. In order to establish a functional computerized licensing system and populate the license database, two phases were proposed. The first should be an appraisal of the current licensing system and the preparation of a well-defined operational and methodological framework. The second one should be the implementation of the recommendations from the appraisal. The first phase has been conducted during the period from 18 September – 30 September 2011, while the development of the respective software is under a tendering process. The mission involved technical consultations with officials of the Ministry of Agriculture (MOA) as well as meetings with local software development companies. The discussions had as a focus the design and implementation of a Licensing System and Data Base (MOA LSDB). Logical links between MOA LSDB and other related systems and databases were also examined, notably those operated by the Ministry of Public Works and Transport (MPWT). A prototype system for the analysis of fleet data was demonstrated to MOA. Recommendations on how the licensing system should be developed including its utility in future catch and effort assessment surveys were also provided to the MOA.

➤ ***EastMed survey at Sea***

At the 2<sup>nd</sup> **Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011)**, it was agreed based on the offer of the Turkish delegation with a fully funded research vessel, to perform using the MEDITS protocol, a preliminary demersal trawl fishery survey in the Eastern Mediterranean with the participation of several EastMed member countries. As discussed the research vessel would be available in early 2012. However before implementing the survey, a group of scientists from each country met in Mersin Turkey to discuss the details of the survey. During this meeting a consensus was agreed on the survey protocol which was based on the <MEDITS manual, and produced a meeting report which incorporates the manual (*CC3/info 13*).

➤ **Preliminary Fisheries Economic Survey in Lebanon**

A preliminary assessment of the socio-economic situation of the fisheries sector was done in Lebanon to understand better the socio-economic situation of the sector. The stratification of the fishing fleet is the first step to set up a fisheries data collection sampling survey. With this in mind, all the licensed vessels data were gathered in February 2012, with the support of the FAO EastMed project. This represented the first step of the ‘Preliminary Fisheries Economic Survey in Lebanon’. The data represent the official licensed active fishing fleet of Lebanon in 2011 as supplied by the Department of Fisheries & Wildlife of the Ministry of Agriculture (DFW). These data were processed to obtain the revised fleet, without errors (e.g. duplicates vessels, missing data, etc.), on which the sampling activities were implemented. Three main strata according to the GFCM fleet segmentation were chosen: “Minor gear with engine < 6 m”, “Minor gear with engine < - 12 m” and “Purse Seine 6 - 12 m”. Within each stratum a sample was selected with a coverage rate of about 30%. The sampling was carried out by the technique of the ‘simple random sampling without replacement’. Following this process, each individual was chosen randomly and entirely by chance, such that each individual vessel had the same probability of being chosen during the sampling process, avoiding the possibility to be chosen more than once. All these information were stored in an Access Database.

As a second step of the activity, on March a training course was conducted by the socio-economic consultant (Mr. Dario Pinello), which included lectures and practical work experience in the field with interviews with fishermen. The aim of the training course was to introduce the general scheme and the goals of the data collection survey, to provide the definition of the variables, to introduce the methodologies to validate the questionnaire and described the approach that should be followed by the data collectors to interview the fishermen. A part of the work was carried out on the field. The data collectors have been assisted and trained in the main fishing ports of Lebanon (Beirut, Saida, Sour, Tripoli, Jounieh). In the same ports the questionnaire has been tested and refined. Nine data collectors would conduct the interviews using a paper version of the

questionnaire. Three officers from DFW would do the data entry on the excel sheets, and one officer from DFW would coordinate and supervise the activities. The training course was attended by all the people involved in the activities. Currently the data collection activities are running.

➤ ***Experimental fishing gears in Lebanon***

Within the framework of the project “Assistance to the artisanal fishery in the port of Naqoura” financed by the Italian Cooperation, the Centre for National Research (CNRS) is carrying out a series of activities aiming at establishing a pilot testing unit for the use of new fishing techniques in Lebanon. The FAO regional project EastMed is providing technical assistance to the CNRS for developing the activities foreseen by the Naqoura project and enhances the capability of the CNRS staff to collect and analyze fisheries data. The EastMed project provided support to CNRS in training the fishing community of Naqoura in the use of new fishing techniques, defining the most appropriate sampling design for testing fishing gears, supervising the preparation of the fishing gears and in the field activities, and contributing in the analysis of the data in collaboration with CNRS. This activity has just been started with the first experimental trials and presentation to fishers in March-April 2012. It is scheduled to be continued during the rest of 2012 and also possibly in 2013.

**Project Component 4 - Increased Participation and Cooperation**

*The Project will promote sub-regional cooperation and collaboration for fishery research, monitoring and management and will support Government staff to attend and fully participating in GFCM (and other) regional meetings*

In order to strengthen international and regional cooperation the Project interacts closely with the FAO sub-Regional Projects, AdriaMed, MedsudMed, CopeMed II, ArtFiMed and Medfisis throughout the year with several co-ordination meetings. These meetings were held in order to consolidate and envisage common activities. In this respect the Project also participated to in the Coordination Committee of AdriaMed, MedsudMed, CopeMed II & ArtFiMed, where synergies were identified.

Cooperation was further sustained with the GFCM Secretariat and the GFCM Subsidiary Bodies. EastMed continued to support the activities of the GFCM by providing scientific contributions for discussion and by funding the participation of 141 experts from the Eastern Mediterranean countries to GFCM and other international activities in the following 15 meetings:

- 2<sup>nd</sup> Coordination Committee Meeting of the EastMed Project Antalya, Turkey, 5-6 April 2011
- GFCM 35<sup>th</sup> Session Italy, Rome 9-14 May 2011
- EastMed 2<sup>nd</sup> mission of the fisheries-dependent data collection pilot survey Alexandria, Egypt, 29 May to 8 June 2011
- EastMed 1<sup>st</sup> meeting of the permanent Working group on stock assessment Demre, Turkey 27 June to 1 July 2011
- MEDITS Cyprus: Biological sampling with experimental bottom trawl in the marine region of the Republic of Cyprus, 10 – 17 July 2011
- GFCM - Working Group on stock assessment of small pelagic and demersal species Greece, Chania, 24 - 29 October 2011
- SOLEMON bottom trawl survey Italy: Biological sampling with experimental bottom trawl in the Adriatic Sea Italy, 24 - 30 November 2011
- GFCM - Workshop on Stock Assessment of Selected Species of Elasmobranchs Belgium, Brussels, 12 - 16 December 2011
- MedSudMed training course on stock assessment – basic level Sliema, Malta, 12 – 16 December 2011
- GFCM-Sub-Committees, Rome, Italy 23 – 26 January 2012
- EastMed 3<sup>rd</sup> mission of the fisheries-dependent data collection pilot survey Alexandria, Egypt, 7 – 15 February 2012
- GFCM - Scientific Advisory Committee - 14th Session Sofia, Bulgaria 20-23 February 2012
- EastMed demersal trawl survey at Sea, preliminary meeting, meeting report and survey protocol, Mersin, Turkey, 29 February – 1<sup>st</sup> March.
- EastMed Seminar on Control, Inspection and Good Hygienic procedures in Fisheries, Cairo, Alexandria, Kafr el sheik, Damietta, Port said, Egypt 23 - 31 March 2012.
- EastMed Seminar on Control, Inspection and Good Hygienic procedures in Fisheries, Beirut, Lebanon 10-12 April 2012.

- ***Memorandum of Understanding (MoU)***  
During the intercessional period two MoUs have been signed with research institutes in Greece: one with the Hellenic Centre for Marine Research-Institute for Marine Biological Resources (HCMR/IMBR) and the other with the National Agricultural Research Foundation-Fisheries Research Institute (NAGREF-FRI). In both MoUs the parties agreed to explore/launch joint initiatives to strengthen their cooperation in research and monitoring of fisheries resources and to undertake activities under the framework of the EastMed project in order to contribute in capacity building of the Eastern Mediterranean countries.
- ***Collaboration with Italian Cooperation and CNRS in Lebanon***  
During the mission of the Project to Lebanon in September 2011, the Italian Cooperation, which conducts research activities in Lebanon through the National Council for Scientific Research (CNRS), discussed with the EastMed Project on how to find synergies in common activities. They finally agreed that the EastMed project would provide technical assistance to CNRS when carrying out research at sea. A Memorandum of Understanding was signed between FAO and CNRS.
- ***Medcoast***  
Under the works of the Mediterranean Coast Foundation (MedCoast), an International Conference was held in Rhodes Greece from 25-29 October 2011. The chairperson of the Network of Experts on the Effect of Lessepsian Species on Fisheries (NEELESFISH), which has been established under the framework of the activities of the Eastmed Project, presented the concept of establishing the network together with its goals and objectives. The presentation, besides raising the issue of lessepsian species in the Eastern Mediterranean countries gave the chance to promote the project in an international forum.
- ***Letter of Agreement between GAFRD-Egypt and FAO-EastMed***  
A Letter of Agreement was signed between GAFRD-Egypt and FAO-EastMed, which enabled implementing the national fisheries dependent data collection pilot survey. During the period of the pilot survey, the EastMed project will closely monitor the activities, provide technical support and supervise, with the assistance of the National Institute of Oceanography and Fisheries of Egypt, the collection and analysis of biological data as well as the catch and effort data as collected by GAFRD.
- ***Review on *Lagocephalus sceleratus****  
At the 2<sup>nd</sup> **Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011)**, it was agreed to support an expert to gather knowledge on possible uses of the lessepsian species *Lagocephalus sceleratus* catches and on risks for public health. Thus a consultant was hired to prepare a review of the biology of *Lagocephalus sceleratus*, its impact on fishing gears, fisheries information, related legislation and potential commercialization. The



report has been prepared and it is in the final stages of publication as an EastMed technical document.

- ***Coordination among the sub-regional projects, with the GFCM and EU***
  - The Coordinator participated in the 35<sup>th</sup> GFCM Session, where she presented the outcomes of the project. A parallel meeting also took place among projects coordinators, FIRF and representatives of the European Commission to exchange thoughts on the possibility to create a single Mediterranean Project. It was agreed to further discuss the proposal in a meeting to be scheduled around July (Brussels, July 2011), during which a compilation of all the elements to be gathered in order to produce a project document was decided.
  - During the Expert Meeting for the improvement and modernization of the GFCM (15-16 December 2011), the coordinators of the Mediterranean projects were invited as experts to participate in the meeting dealing with the improvement and modernization of the GFCM based on the outcomes of the performance review. The meeting also gave opportunity to give special emphasis on the reinforcement of the coordination and joint work of the Projects, among them, with the FAO Fisheries Department activities and with the GFCM.
  - The project staff participated in the 14<sup>th</sup> Session of the GFCM SAC (Sofia, Bulgaria, February 2012) to present the activities of the project. A meeting with the focal points was also convened in parallel to discuss issues regarding details for the coming Coordination Committee of the project to be held in Bari, Italy, April 2012 as well as meeting among representative of the EU, FIRF and projects coordinators to discuss on financial and coordination issues.
  - The Coordinator participated on the sub regional meeting of the GFCM task Force (Beirut, Lebanon, March 2012) to provide support to the GFCM program as well as to point out the strong collaboration which exists between GFCM and sub regional projects.
  - The Coordinator of the Project participated at the 10<sup>th</sup> Coordination Committee Meeting of the MedSudMed as well as the 13<sup>th</sup> meeting of the AdriaMed, which took place in Djerba, Tunisia (March 2012) and Tirana, Albania (March 2012) respectively. The above presence is important not only because it gives the opportunity of taking information but also because it is the essential environment to discuss on common activities among the projects.
  
- ***EastMed Web site***

The project web site ([www.faoeastmed.org](http://www.faoeastmed.org)) has been improved and active links have been created with the websites of the other sub-regional projects and GFCM. It is continuously updated with new information, and on the home page a new section on upcoming events was developed. An effort was made, in cooperation with MedSudMed, EastMed and CopeMed II (including ArtFiMed), to harmonize the information provided in the Project web sites.



### ***Publications***

Five technical documents have been prepared and the ones published are available on-line through the website. Hard copies have also been distributed to participating countries. Two posters were prepared. The one is describing the second year activities of the Project and the second the flow chart on data collection to be implemented in Lebanon. A fish identification template is also in the process of preparation. The publications were distributed in several meetings including those of the GFCM.

## Annex IV Provisional 2012 programme of work of the FAO-GFCM SAC



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



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#### **WORK PROGRAMME OF THE SCIENTIFIC ADVISORY COMMITTEE (SAC)**

20. Set out below are the proposed lists of activities for the intersessional period 2011 as identified by the four SAC Sub-Committees and reviewed and completed by the SAC at its fourteenth session.

Comments emanating from the Ad hoc Meeting to finalize selected outcomes from the 14th session of the SAC are included as footnotes. Draft Terms of Reference (ToRs) for certain activities are given in Appendix C to this document.

#### **Sub-Committee on Marine Environment and Ecosystems (SCMEE)**

- Develop a Regional Management Plan for Red Coral
  
- Co-organize with the Ege University (Turkey) the International conference on Artificial Reefs that will be held in Izmir (Turkey) in September 2013. It is suggested that this action be an alternative to the proposed Workshop on artificial reefs.
  
- On gear selectivity:
  - Complete the different database of TECHNOMED network and to re-activate the TECHNOMED website;
  - Elaborate a catalogue of fishing gears in the GFCM Area;
  - Co-organize with the CopeMed Project a meeting of the Working Group on Selectivity and fishing technology
  
- On the implementation of the medium-term **elasmobranchs'** programme:
  - Produce factsheets to facilitate the identification of the most commonly landed species

- Publish the updated version of the Draft GFCM publication on: Status of Elasmobranchs in the Mediterranean and the Black Sea.
- Organize a training Workshop on elasmobranchs age reading methodologies.

### **Sub-Committee on Statistics and Information (SCSI)**

- Launch a consultation phase for reviewing the Task 1 data submission framework. Organize a workshop to finalize the new Task 1 & 2 data submission framework and define a plan of action, possibly within the context of the Framework Program, for improving member countries' capacity to collect and submit relevant data.

### **Sub-Committee on Economic and Social Sciences (SCESS)**

- Organize a Workshop including a training component on bio-economic analysis-models used in the GFCM area. This Workshop should possibly be organized in collaboration with the EastMed Project and will be applied to three fisheries selected at the Ad hoc meeting of the SAC for which sufficient data are known to be available, namely: i) demersal trawl fishery in the Ligurian and North Tyrrhenian Sea, GSA09; ii) *Parapenaeus* and *Merluccius* trawl fishery in the Strait of Sicily, GSAs 12-16; and iii) demersal trawl fishery in the Gulf of Lions, GSA07 extended to species other than *Merluccius*.
- Undertake regional case studies related to the socio-economic analysis of Recreational fisheries and of small-scale fisheries.
- Hold a specific Working Group back-to-back to the forthcoming SCESS meeting on the review of the variables list of Task 1.3 and their related definitions.

### **Sub-Committee on Stock Assessment (SCSA)**

- Organize the two Working Groups on Demersal and on Small Pelagic species including some species of elasmobranchs;
- Organize an expert consultation to elaborate the design and contents of the new Task 2 module;
- Contribute to the Joint ICES/EIFAAC/GFCM Working Group on European Eel.
- Organize a training course on the Time Series Analysis in the framework of the GFCM Permanent Working Group on Stock Assessment Methodologies (PWGSAM)

### **Ad hoc Working Group on Black Sea**

- Organize a Workshop on data collection and information systems on fisheries in the Black Sea
- 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.
- 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.

### **Potential activities resulting from the Task force process and collaboration with partner Organizations**

21. Several other actions could be envisaged as a result of the decisions that will eventually be taken by the Commission in relation to the activities of the Task Force and as deemed necessary within the framework of the different Memoranda of Understanding signed with partner Organizations and reproduced in document GFCM:XXXVI/2012/Inf.5.

### **Issues related to the functioning of the SAC and its Sub-Committees**

22. The SAC at its fourteenth session reviewed the outcomes of the Expert meeting organized in the framework of the Task force to address the functioning of the Committee. In this respect, it was highlighted that the structure of SAC could be revised to the extent that Sub-Committees would meet back-to-back with the annual session, allowing the Sub-Committee meetings to also benefit from the simultaneous translation (English-French) and hence ensuring better involvement of the scientists, subject to the availability of funds and considering alternative options (e.g. reducing SAC session to

four days in order to allocate the budget for the simultaneous translation). The next sessions of the SAC and of its Sub-Committees are scheduled according to this suggestion.

**Scheduled meetings for the 2012-2013 intersessional period:**

<b>Meeting</b>	<b>Place/Date</b>
GFCM/ICES/EIFAAC Working Group on EEL	Rome?/ second half of 2012
International conference/Workshop on Artificial Reefs	Turkey/September 2013
Working Group on Selectivity and fishing technology (in collaboration with CopeMed II)	TBD/ last quarter of 2012
Meeting of the PWGSAM on Time Series Analysis	Sicily, Italy/ September 2012
Working Group on the review of the variables list of Task 1.3 and their according definitions (back-to-back with the SCESS/SAC Session)	Egypt/February 2013
SCESS Working Group on bio-economic analysis models	Tunisia/ last quarter of 2012
Workshop for finalizing the new Task 1 & 2 data submission framework (SCSI)	TBD/ second half of 2013
Workshop to assess IUU fishing and its impact in the Black Sea	TBD/ second half of 2013
Workshop on data collection and information systems on fisheries in the Black Sea	TBD/September 2012
Training on direct and indirect stock assessment methodologies (possibly with the STECF)	Varna, Bulgaria/ 30 April - 4 May 2012
Sub-regional stock assessments on small pelagic and demersal stocks (possibly in collaboration with STECF)	Bucharest,Romania/ October 2012
Working Group on Stock assessment of Demersal and elasmobranchs Species (SCSA) (5 days)	Split, Croatia/ 22-26 October 2012
Working Group on stock assessment of Small Pelagic Species (SCSA) (5 days)	Split, Croatia/ 22-26 October 2012
14 <sup>th</sup> Session of the SCSA (2 days)	Egypt/February 2013
13 <sup>th</sup> Session of the SCME (2 days)	Egypt/February 2013
13 <sup>th</sup> Session of the SCSI (2 days)	Egypt/February 2013
13 <sup>th</sup> Session of the SCESS (2 days)	Egypt/February 2013
15 <sup>th</sup> Session of the SAC (4 days)	Egypt/February 2013
2 <sup>nd</sup> Session of the Working Group on Black Sea	TBD/first half of 2013

## Annex V Tentative work plan for the 3<sup>rd</sup> year of the project



Scientific and Institutional  
Cooperation to Support  
Responsible Fisheries in the  
Eastern Mediterranean



*FAO EastMed: CC03/03*

### **Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012**

#### **Tentative Work plan for the 3<sup>rd</sup> Year of the Project**

(April 2012 – March 2013)

#### **FAO EastMed Working Document**

##### **Introduction**

The aim of this document is to offer to the members of the Coordination Committee (CC) elements for discussion on the Work Plan of the EastMed project for the upcoming year.

The Project has been operative since September 2009 with a mandate of five years. The first Coordination Committee was held in Athens, Greece from the 19-20 April 2010 and the second one was held in Antalya, Turkey from the 5-6 April 2012. The activities proposed in this document take into account the objectives of the project, the recommendations received during the 2<sup>nd</sup> Coordination Committee, the outputs of the activities carried out during the 2<sup>nd</sup> year, the scientific cooperation established within the framework of the GFCM and the collaboration with the national counterparts.

The final work plan will take into account the recommendations of the 3<sup>rd</sup> Coordination Committee meeting, in accordance with the priority expressed by the countries on each activity and **directly linked to the available budget of the Project.**

## **WORKPLAN**

In order to facilitate the presentation of the work plan for the next 12 months, all the proposed activities were organized into the 4 components of the Project:

- **Institutional Strengthening**
- **Training Staff and Development**
- **Data Collection and Analyses**
- **Increased Participation and Cooperation**

Moreover, efforts have been made, in coordination with all the Mediterranean Regional Projects, to draft a tentative common calendar of activities in order to avoid any overlap as well as to find synergies and strengthen the coordination among the activities of the Regional Projects.

### **Institutional Strengthening**

The Project will continue to support the needs in the Fisheries Departments, in particular:

#### Web-based licensing system in Lebanon

At the 2<sup>nd</sup> **Co-ordination Committee meeting of the EastMed project (Antalya, Turkey 5-6 April 2011)**, it was agreed to develop in Lebanon a functional computerized licensing system (MOA LSDB) and populate the licensing database. During the intresessional period there was a local call for tender, which is currently under evaluation. Once the software will be developed and provided to the MoA, training will be conducted to the MoA staff. Synergy with MedFisis has been also taken into account. The licensing system will be the basis for the administration to monitor fisheries and will be used to feed data for future data collection activities on catch, effort, socio-economic and biological surveys. The project will support the whole process.

#### Feasibility study for new fishing vessel designs and/or new vessel building materials:

The existing artisanal Lebanese fleet is practically wooden with a couple of metal vessels and some fiberglass vessels (recreational-type adapted to fishing). The navigation capabilities and safety records of the wooden locally designed vessels are questionable as well as that for the existing fiberglass and metal ones. Furthermore, their ability to explore new fishing grounds in order to decrease the pressure on immediate coastal fishing zone (< 3miles from coast) is limited. Thus, there is a need to explore, through international and local expertise, the feasibility of introducing new “certified” vessel designs. The Project will support the development such a feasibility study.

#### Support the maintenance of the fleet register

On the basis of the work and results of the MedFisis project, the EastMed project will assess and develop further actions, if and as necessary, in supporting the capability of countries to maintain a functional fleet vessel register in the medium to long term.



## **Staff Training and Development**

The Project will continue to support on-the-job training, national and sub-regional workshops and opportunities for the staff of the Fisheries Departments to participate in regional management meetings, in particular:

### CAS in Lebanon – Training course

In the North of Lebanon, catch, effort and some biological data are collected by the University of Balamand. After consultations with the MoA, a LoA is going to be prepared between FAO and the University of Balamand, in which the University will be responsible for the training of the staff of the Ministry that will conduct the data collection on catch and effort. During the training course, time will be also allotted for the description of the most important commercial species and fishing gears used.

### Experimental trials for new fishing techniques in Lebanon

Within the framework of the project “Assistance to the artisanal fishery in the port of Naqoura” financed by the Italian Cooperation, the National centre for Scientific Research (CNRS) is carrying out a series of activities in order to establish a pilot testing unit for the use of new fishing techniques in Lebanon. The project is providing technical assistance to build the capacity of the staff of CNRS in terms of data collection and analysis and train the fishers on the correct use of new fishing techniques. The activity has started during the intraseasonal period and will continue during the next period (*CC3/info16*).

### Exchange training programme for collection of survey data at sea

This will be an on-board training programme. The countries participating in the project will identify training opportunities in their regular research activities, and through the Project will offer these possibilities to the other countries and institutions. The proposed training programme will be tentatively offered during the second semester of 2012.

### Training on catch/effort data, socio-economic and biological data collection in GSWB

The capacity building in GSWB is continuously one of the most important tasks of the project. Unfortunately up to now, the problems encountered either in the area or in the security procedures required to reach the region, did not allow the staff of the project to support in depth the various needs of the GSWB. It is thus foreseen that during the 3<sup>rd</sup> year of the project and upon the proper preparation, a mission during which training on data collection and data analysis will be conducted.

### Training on socio-economics in Egypt

After consultation with the fisheries administration in Egypt it was agreed to incorporate the collection of socio-economic parameters under the framework of the running pilot survey. During the past missions to Egypt, an understanding of the socio-economic situation in Egypt was carried and a questionnaire was tested and adapted to the local needs. It is foreseen that training will be given to the data collectors in order to conduct a socio-economic survey, with the support of the project (*CC3/info18*).

### Development of the clams fishery in Egypt

According to the knowledge gathered during visits of the staff of the project, most of the Egyptian production is conducted by fishing activities by hand and takes place at depths from 0-1.5 m. This production is considerably high when one considers that it is only derived from very shallow water. After consultations with administration, it was agreed to support Egypt in exploring the possibility to assess the clam resources and then assist the country in developing this fishery, both in terms of management at sea, value added of the product and marketing. This should be a joint activity between GAFRD, fishermen co-operatives, scientific institutions (e.g. NIOF) and FAO EastMed (CC3/info17).

### Training on data collection in Turkey

Within the framework of the pilot survey on data collection which is planned to be conducted in a pilot area during the 3<sup>rd</sup> year in Turkey, training will be carried out. All the staff that will be involved in the pilot study will be trained by the EastMed project. The training will take the form of lectures and training in the field. Visits to other countries in which catch and effort data collection systems are routinely conducted could also be arranged. This would help the staff involved to understand how the complete data collection system works from the landing port to the data entry and data analyses, with hands on practical experience. The training will start once the sampling scheme (stratification, number of samples, etc) and methodologies for the processing of data have been agreed. The training and/or visit to a country can start one month after the sampling scheme has been finalized (CC3/info19).

### Training on the collection of socio-economic data in Greece

It was noted that Greece has failed to conduct the EC data collection (DCF) since 2008, but hopefully this will start during the current year. Among the various components of that DCF is the of collection of socio-economic variables. Recently Greece has expressed its weakness to properly collect and evaluate those variables in small scale fisheries. The project will provide technical assistance to build capacity in the mentioned sector.

### Educational seminar for the preparation of fish traditional products to the fishermen`s wives of the island of Kalymnos

In the island of Kalymnos, where the catch of tuna like species is important, which however has a low price, it has been requested to support the local community in order to increase the added value of those products, which will also help in improving the fishers welfare. It is noted that a similar activity is already profitable in another Greek island. The request in particular is to educate the fishermen`s wives of Kalymnos (Greece) for the preparation of traditional fish products using canning technology after thermal process and preservation in saltwater or sunflower oil. The project will support to convene a seminar, which will be conducted in the island dealing with the utilization of low value fish such as albacore (*Thunnus alalunga*), atlantic bonito (*Sarda sarda*) or other tuna like species, fished by the small scale fishery in Kalymnos. During the seminar basic knowledge on chemical, microbial and organoleptic control will be also provided.

### Training course on stock assessment methods

A general need for training on stock assessment has been indicated in several cases by the countries participating in the Project. The possibility of having training sessions prepared by the Project and/or advantages can be taken of training courses organized by other FAO Mediterranean regional Projects and/or Mediterranean initiatives will be considered.

### Training course on EAF

According to the recommendations and outputs of the workshop on management (Athens, 15-17 March 2011), it has been agreed that the project will support the organization of a training course on Ecosystem Approach to Fisheries (EAF). The course would train managers and scientists on EAF principles in the management process. However due to other commitments in the countries, it was not able to carry out the course, which is postponed for the 3<sup>rd</sup> year taking however into consideration the funds availability. Synergies with other FAO Mediterranean Regional Projects will also be sought.

## **Data Collection and Analyses**

### EastMed Survey at Sea

During the meeting of experts on the finalization of the details on the coming survey at sea, which was met in the intersessional period, it has been decided to use a modified protocol of the MEDITS. The survey will be carried out in late May – early June 2012 in the region south of Turkey covering both national Turkish and International waters (*CC3/info10*). The details of the provision of the Turkish research vessel will be reflected in the Memorandum of Understanding which will be shortly signed between FAO and the Institute of Marine Science, Middle East Technical University in Mersin (ISM METU-Turkey).

### 4<sup>th</sup> mission of the fisheries-dependent data collection pilot survey in Egypt

Within the framework of the running fisheries-dependent data collection pilot survey in Egypt and based on the LoA, the project is supporting the biological sampling, which is expected to be completed by the end of the year as well as provides technical assistance to the collection of catch and effort. During the 3<sup>rd</sup> year of the project it is expected to have a follow up of the survey which will be conducted by the last mission to Egypt in the 2<sup>nd</sup> semester of 2012. At the moment scientific supervision is taking place by the National Institute of Oceanography and Fisheries of Egypt on the collection and analysis of biological data. Training, equipment, mobilization of staff and contractual arrangements with other agencies and institutions should also be considered and quantified to the largest extent possible.

### Data Collection Protocol in Arabic

A technical document incorporating guidelines, data collection forms and operational modalities for the pilot implementation has already been prepared in English. During the

3<sup>rd</sup> year this Protocol will be translated in Arabic. This will ensure better implementation of the data collection not only during the pilot survey but also in the future.

#### Definition and Pilot application of a monitoring system aiming to the collection of socioeconomic parameters in small scale fishery of Greece

Greek fisheries are characterised by a wide spatio-temporal variation and scattering of fishing activity along the extensive Greek coastal zone. The monitoring of fishing activities and the collection of data related to socioeconomic aspects faces some difficulties due to the large number of small vessels and the extensive network of small ports. Thus a particular monitoring system is required in order to avoid a large sampling effort. A large part of the Greek fleet, does not keep financial books on income-expenses since they are taxed based on a fixed rate and consequently there is not an existing source of relative data. The project will provide technical support for the definition and the pilot application of this system for the monitoring of socio-economic parameters.

#### CAS in Turkey – pilot sampling

Under the frame work of the data collection in Turkey and once the sampling scheme defined and the training of the collectors be finalized, the project can support the collection of catch and effort including the variables on socio economy on a pilot basis.

#### CAS in Lebanon – pilot sampling

In the North of Lebanon, catch, effort and some biological data are collected by the University of Balamand. During the intersessional period and based on mission taken place in September 2011, it was agreed to develop a pilot activity on the collection of catch and effort data and to train the staff of the Ministry for this activity. The catch and effort data collection should cover the whole Lebanese coast. The training on biological data collection will follow but probably will be conducted during the next intersessional period. It is also noted that during the training course time will be also allocated for the description of the most important commercial species and fishing gears used.

#### Pilot fisheries dependent survey on biological sampling in GSWB

In case that the project staff will manage to realize the mission to GSWB for training on the collection of catch and effort as well as biological sampling, will also support the biological sampling on a pilot basis as well as the elaboration of the data.

2<sup>nd</sup> Meeting of the Permanent Working Group on stock assessment (PWGSA) During the previous intersessional period the 1<sup>st</sup> meeting of the permanent Working Group on stock assessment (PWGSA) in the Eastern Mediterranean was carried out. During that meeting, the candidate shared stocks were identified. An inventory of existing data required to undertake a stock assessment was made and the various information gaps were defined together with the most adequate stock assessment models to be used in the Eastern Mediterranean region. It was also decided to conduct a 2<sup>nd</sup> meeting of the Permanent Working Group during the 3<sup>rd</sup> year of the project. The Terms of Reference are annexed (Annex I).

## **Increased Participation and Cooperation**

### Strengthening the cooperation with the other FAO Regional Projects

The existing cooperation with other FAO Regional Projects (RP) AdriaMed, MedSudMed, CopeMed II and ArtFiMed will be further strengthened. In this context, synergies are foreseen with the Projects, also taking into consideration the indications collected during the internal coordination meetings among the Projects. Several other coordination meetings among the Mediterranean Regional Projects have already been planned for 2012 in order to consolidate and coordinate common activities. Training activities will be coordinated among all the Projects, in order to avoid duplication or overlapping of activities. The participation of other RP experts in training courses organized by EastMed and vice versa will be foreseen. The preparation of common informative material (leaflets, CD-rom, etc.) that can improve the visibility of the RPs in the Mediterranean area is foreseen. Moreover, the Project will participate in the Coordination Committees of the RPs where additional synergies will be identified.

### Country Participating Working Group

The Project will provide the necessary support to facilitate the meetings of the country participating working groups (CPWGs). The establishment of the CPWGs, which was agreed during the 1<sup>st</sup> Coordination Committee meeting (Athens, Greece, 19-20 April 2010), gives the chance to stakeholders to participate in the process of elaborating management systems, including the development and application of management plans.

### Support Government staff to attend and fully participating in GFCM meetings

The Project will continue to strengthen the international and regional cooperation at Mediterranean level with the GFCM and its related bodies, according to budget availability, (SAC, Sub-Committees, Working Groups, CAQ) through the preparation of scientific contributions for GFCM events, the participation of experts from the EastMed countries in GFCM events and through support to the countries to be compliant with the GFCM requirements.

### Fish identification guide

During the 2<sup>nd</sup> Coordination Committee Meeting it was agreed to prepare for the work on the field plastic cards with the most commercial species in the Eastern Mediterranean region. During the intersessional period the material was collected, which will be reflected in the cards with species figures in colour accompanied by the scientific name and the common name in English and Arabic.

### EastMed portal ([www.faoeastmed.org](http://www.faoeastmed.org))

The contents, and consequently the EastMed portal, will continue to be updated and further developed in order to make it always easily accessible in areas of interest to website users.

**TOR for the next meeting of the EastMed PWGSA**

- i) to compile a list of surveys and fishery-dependent data collection projects carried out in the last 10 years in each country, summarizing information on sampling area, periods, sampling design, type of data collected, data collection methodology, gear characteristics;
- ii) to provide advice on how to increase the standardization between surveys and to discuss the possibility and technical requirements to expand the MEDITS survey to Turkey and the other countries in the region;
- iii) to provide sampling protocols or guidelines for stratified data collection based on the fleet sampling approach, taking into account the requirement for compilation of the GFCM task I matrix;
- iv) advice on how to implement a spatial (e.g. landing ports, fishing grounds, GSA, etc) and temporal sampling (tri annual sampling, annual sampling, quarterly, monthly, weekly);
- v) advice on how to collect commercial size categories of the species caught (e.g. small, medium, large fish);
- vi) advice on how to sample mixed boxes (e.g. shrimps);
- vii) advice on how to sample by-catch of commercial species caught by gears which do not directly target the species, discard sampling of commercial species.

## Annex VI Preliminary fisheries socio-economic survey in Egypt



Scientific and Institutional  
Cooperation to Support  
Responsible Fisheries in the  
Eastern Mediterranean



*FAO EastMed: CC03/info18*

### Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012

#### Preliminary Fisheries Socio-Economic Survey in Egypt

February 2012

#### Introduction

During the EastMed 2nd co-ordination meeting on the 5-6th April, Antalya, Turkey the participants agreed to start to collect data of the fisheries sector in Egypt. A socio-economic survey based on direct interviews with the fishers could be conducted. However before conducting the survey first the population of vessels has to be defined. In this respect data from the fleet register would be required which includes, vessel registration number, registration port, landing port, length overall (LOA), GT, GRT, kW, year of construction, construction material, fishing gears and special licenses or permit (e.g. special license for bluefin tuna purse seine).

#### Overview of the Fisheries sector in Egypt

In Egypt, fishery resources are divided in 3 main sectors: Marine fisheries (Mediterranean and Red sea Fisheries), inland fisheries (River Nile, lakes, lagoons); Aquaculture (major contribution). The fisheries activities in Egypt have witnessed a fast and remarkable development during the last ten years, with technological development and improved efficiency in fishing fleets.

Political and economic decision-makers are becoming increasingly aware of the fundamental economic roles that fisheries and any related activities play in Egypt. The share of fisheries to the total income has increased recently (2008), and the net profit has increased as a result of the development of the aquaculture activities by the private sector. Aquaculture has made large leaps in achieving a sharp increase in fish production and in the associated profits.

Egypt vessels in the Mediterranean operate in the Levantine sea. Apart from the fact that this country has a much longer coastline, its production per km<sup>2</sup> of coastline is higher when compared to other eastern Mediterranean countries.

**Table 1. Fish Production**

Source	Quantity in Tons	%
Marine Fisheries		
Mediterranean Sea	88.882	8,33
Red Sea	47.361	4,44
Inland fisheries		
Northern lakes and Lagoons	114.482	10,73
Inland Lakes	43.402	4,07
River Nile and its tributaries	79.688	7,46
Aquaculture	693.815	64,99
Total	1.067.630	100

Source: Gamal El Nagggar, Mohamed Fathy Osman – GAFRD. 2010. Country Report: fisheries in Egypt. PESCAMED Project Meeting, Bari, Italy 14-16 June 2010

### Production

The total fish production of Egypt is 1.067.630 tons (Fishstat 2008), 373.815 tons from fishery and 693.815 tons from aquaculture, with an estimated value of 10.814 million LE (GAFRD. 2010). The fish landings from the marine fisheries (Mediterranean Sea and Red Sea) in 2008 summed up to 136 thousand tons, which represents about 13% of the total production. The fish landings from the Mediterranean marine fisheries in 2008 summed up to 88.882 thousand tons, representing about 8,33 % of the total production.

### Trade: import and exports

In Egypt`s fisheries economy, only a small quantity of the production is exported, while imports are very much higher than exports. As a result the domestic fish demand is high. Egypt is one of the major importers of fish products originating from EU sources. In 2006 the trade economy value of marine fishing shows that imports were very much higher than exports, confirming the previous trend. In fact, the value of exported fish products is 3.5 million USD while that for import it is 167million USD. To reduce the gap between the local production available for domestic consumption (around 1.1 million tons), and the fish demand (the local production covers about 89% of the fish demand), amount of 137 thousand tons was imported, mainly of frozen and processed fish.

Fish contribute to about 20% of the national consumption of animal protein and, it is estimated that in 2008 the per capita consumption of fish is 15,95 kg per year.

Source	Quantity in Tons	%	Kg per capita
Local production	1,067,630		
Exported	6727		
Available from local production	1,060,902	89	14.13
Imported	136,807	11	1.82
Available for fish consumption	1,197,709	100	15.95

Source: Gamal El Nagggar, Mohamed Fathy Osman – GAFRD. 2010. Country Report: fisheries in Egypt. PESCAMED Project Meeting, Bari, Italy 14-16 June 2010



The Egyptian demand for fish in 2012 is forecast to reach 1.362.000 tons, and this amount is not so far from the present production level of 1.067.630 tons (2008). Government policy aims to bridge this gap through managing the natural fisheries and developing aquaculture activities.

### **Fishery and linking industry**

The fishing industry has a relatively minor direct role in the economy of Egypt, but nevertheless, domestic fish production makes a valuable contribution to the national food supply and to the traditional way of life, in which fish eating plays an important part. In addition it is a significant source of food for the tourist industry. In some cases, fishermen (especially in the Red Sea) sell their catch directly to restaurants or hotels. In Egypt, also depending on the fact that fish are consumed mostly in its fresh form, very little quantity of the national production with a major part of the imported fish is used for processing and manufacturing (smoked, canned, fillet, salted and dried).

Fishing industry is important for the livelihood of over 65.000 fishermen and other people employed full time in related activities (estimated at some 300.000 people). (Source: FAO). The General Authority for Fish Resources Development (GAFRD) estimates that an equal number of people is working in the sector without licenses, either fishing or working in the supporting industry. The Authority estimates that in Egypt one million people depend on the fisheries sector for their livelihoods (Seham and Salem, 2004).

Updated, reliable information on the fishermen population is not available. The closest estimate indicates that total employment in the fisheries sector is approximately one million persons. This estimate includes about 321.000 licensed fishermen in capture fisheries, and probably more than twice as many who are not. It is believed that an additional 300.000 persons work in fish farming, handling, transportation, processing, marketing and other related activities and services to the industry.

The Egyptian fishing industry is modernizing. Much of the fleet in the private sector is now well developed, using advanced navigation equipment. Fish production expanded rapidly in the last ten years, and was marked by a gradual increase in unit effort, i.e., increase in engine power and the size of gear used by the individual vessels. While the thriving sponge fishing industry has completely stopped, mainly due to sponge disease, sea cucumber collection has rapidly grown (FAO).

### **Fishing fleet**

The main fishing ground used in the Mediterranean coast by Egyptian vessels is the continental shelf off the Nile Delta, which may also be extended to the eastern side of Port Said and rarely, to the western side of Alexandria. The continental shelf is narrow in the east and west comparable to the wider central Delta region. The seabed is flat, mostly muddy to sandy along the middle and eastern coast.

The Mediterranean motorized fleet (3.129 boats) in 2008 was composed of 1.095 trawlers, 238 purse seines, 1.267 pelagic long-liners (Tuna and swordfish) and 529

trammel nets. While the number of trawlers and purse seiners was stable in the last five years, the number of long liners has doubled.

Description	Boat number
Small scale	1379
Trawler	1095
Purse seine small pelagic species	238
Pelagic Long line (tuna and sword fish)	1267
Trammel Nets	529
Other	1

Source: Gamal El Naggar, Mohamed Fathy Osman – GAFRD. 2010. Country Report: fisheries in Egypt. PESCAMED Project Meeting, Bari, Italy 14-16 June 2010

## Objectives

The main objective of the study is to determine the principal socio-economic characteristics

of the fleet, in order to gather socio-economic data on these three fleet segments, which together with the catch, effort and biological data it give the full data for these fishing vessels. This aim arose from a series of preliminary considerations: firstly, the well-documented importance of gaining an insight into the socio-economic aspects of the fisheries not only at local level, but also in national and international contexts. Further key issues are an awareness of the significance of the fishery sector, in terms of the dynamics of the inter-relations between the social and economic performances of the sector. One very important aspect that will be considered in the profit of the fleets under consideration, and the income per fisher.

In the past, economic aspects of the fishery sector have often been neglected; the complexity and interdependence of the social, economic and political profiles proved somewhat difficult to grasp. More recently, an awareness of the importance of this aspect of the fishery sector has grown in national and international contexts, thus determining a need for deeper knowledge and for further investigation which has promoted the development of research in this field. The intention of this study is to fill a knowledge gap found in most developed countries and not typically just of Egypt, aims at tackling a work initiative with progressive improvement, with a view to placing Egypt in an advanced situation in an international perspective.

Because of their structural characteristics, many socio-economic characteristics do not change in the short-term; so the collection of the socio-economic data is not required as frequently as for the other economic surveys. The specific activities for the survey will be:

- One off survey using a random stratified sampling approach
- Evaluation of the socio-economic performance of the sector

## Methodology

The sampling frame for the collection of socio-economic data for the year 2011 could be based on the licensed fishing vessels. A sampling plan could be implemented in order to achieve the estimation of all the socio-economic variables for fleet segments according to the GFCM Task I fleet segmentation. The technique of stratified random sampling could be used whereby a sample size of about 15% could be selected randomly from the total population per each fleet segment. Direct interviews based on questionnaires could be used to gather the data needed.

In detail, the steps to develop the survey are the following:

- Stratify the population
- Optimum sample allocation in each strata
- Select the sample units of the population
- Collect raw data from the sample;
- Raise the sample data to the total population

The **sample** is the fishing vessel with regular license



The **stratification variables** are:

- Geographical (e.g. “West of Nile Delta”; “East of Nile Delta”)
- Technical: Fishing system
- Dimensional: Length overall

**Expected Egyptian fishing fleet segments (an example)**

<b>Fishing district</b>	<b>Fishing technique</b>	<b>LOA classes (m)</b>	<b>Nr of vessels</b>
<b>West of Nile Delta</b>	Small scale	<6	
	Small scale	6/12	
	Small scale without engine	<6	
	Trawlers	<12	
	Trawlers	12/18	
	Trawlers	>18	
	Purse seiners	12/18	
	Purse seiners	18/24	
	Purse seiners	>24	
	Pelagic long-liners (Tuna and Swordfish)		
	Trammel nets		
<b>East of Nile Delta</b>	Small scale	<6	
	Small scale	6/12	
	Small scale without engine	<6	
	Trawlers	<12	
	Trawlers	12/18	
	Trawlers	>18	
	Purse seiners	12/18	
	Purse seiners	18/24	
	Purse seiners	>24	
	Pelagic long-liners (Tuna and Swordfish)		
	Trammel nets		

The survey would cover the following parameters:

<b>CREW</b>	Crew (average per day)
<b>EFFORT</b>	Days at sea (total per year)
	Average fishing hours per day
<b>LANDINGS</b>	Total landing (Kg)
	Total landing (EGP)
<b>COSTS</b>	Fuel cost
	Crew share
	Commercial cost
	Other running cost
	Vessel cost
	Fixed cost
	Investment
<b>SALE OF FISH</b>	Auction
	Wholesaler
	Direct

Following the details of each cost variables:

<b>FUEL COSTS</b>	Fuel costs
	Lubrificant costs
	Average fuel price (EGP/l)

<b>CREW SHARE</b>	Remuneration
	Social security, social costs and pension contributions
	Crewmembers insurance

<b>COMMERCIAL COSTS</b>	Fishmarket or Wholesaler's commission
	Wholesaler's commission
	Bidder's commission
	Portage fish products
	Expenses for motor-vehicle fish transport
	Ices
	Boxes and packages
	Other commercial cost

<b>OTHER RUNNING COSTS</b>	Purchase of ropes and warps
	Maintenance of nets
	Purchase of food
	Purchase of bait
	Purchase of other consumable materials
	Other running cost

<b>VESSEL COSTS</b>	Boat painting
	Routine maintenance
	Expenses for blacksmith - carpenter
	Maintenance of equipment (mechanical, hydraulic, electrical equipment)
	Other vessel cost

<b>FIXED COSTS</b>	Book-keeping
	Vessel insurance
	Legal expenses
	Bank expenses
	Passive banking interests
	Annual quota fishermen associations
	Dock expenses (water, electricity)
	Management of depository
	Fishing licence renewal
	VAT annual quota and other administrative rights
	Other fixed cost

<b>INVESTMENTS</b>	Purchase of mechanical equipment (engine)
	Purchase of fishing gears
	Purchase of nets
	Purchase equipment (mechanical, hydraulic, electrical equipment)
	Other investments

### **Expected outcomes**

From the raised data, it would be possible to do an evaluation of the socio-economic performance of the sector, pointing out the main economic problems and to propose any solutions. Some management advice in order to improve the economic conditions of people involved in fisheries.

Furthermore, socio-economic indicators would be calculated and compared with values of other similar sectors (e.g. aquaculture and/or agriculture). The main socio-economic indicators would be:

- Number of fishers
- Cost of labour
- Gross profit per vessel
- Added value per fisher

The evaluation of these indicators will also be used to give management advice to the Ministry.

The results, acquired knowledge and experience, could then be used in future socio-economic data collection.

# Annex VII Proposal for the development of the clam fishery in Egypt



Scientific and Institutional  
Cooperation to Support  
Responsible Fisheries in the  
Eastern Mediterranean



FAO EastMed: CC03/info17

## Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012

### A proposal for the development of the clam fishery in Egypt

February 2012

#### Introduction

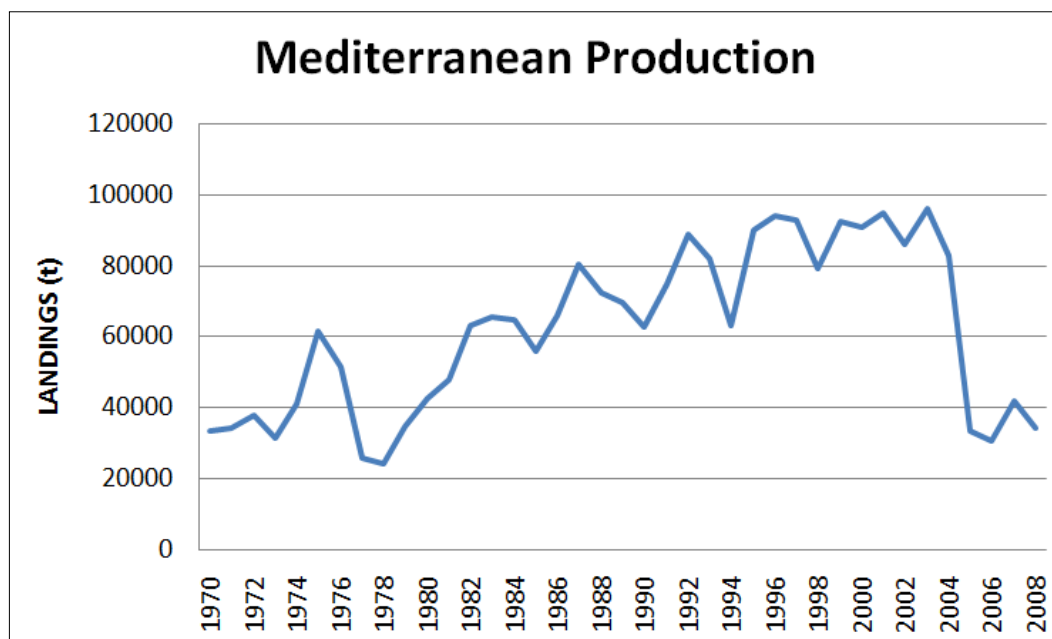
As a general term the word clam covers all the bivalve molluscs that burrow in sediment, as opposed to ones that attach themselves to the substrate (for example oysters and mussels), or ones that can swim and are migratory, like scallops. Numerous edible marine bivalve species live buried in sand or mud, and respire by means of siphons, which reach to the surface. In the United States, these clams are collected by "digging for clams" or clam digging.

In October 2007 an *Arctica islandica* clam, caught off the coast of Iceland, was discovered to be at least 405 years old, and was declared the world's oldest living animal by researchers from Bangor University (Wales, UK). With respect to the concept of edible clams, most species of bivalves are at least potentially edible. However some are too small to be useful, and not all species are considered palatable.

#### Mediterranean production

The total Mediterranean production (bivalve molluscs) is around 40,000 tons (GFCM 2008).





**Fig 1.** Total Mediterranean production from 1970-2008 (source FAO GFCM).

The table below shows the production by country in the Mediterranean from 2004-2008. The highest production is by Italy with around 30,000 tons, and followed by Egypt with around 3,000 tons. Most of the production comes from delta areas such as the Po delta in the Adriatic region, and the Nile delta in Egypt.

**Table 1.** Production by country in the Mediterranean (source FAO GFCM).

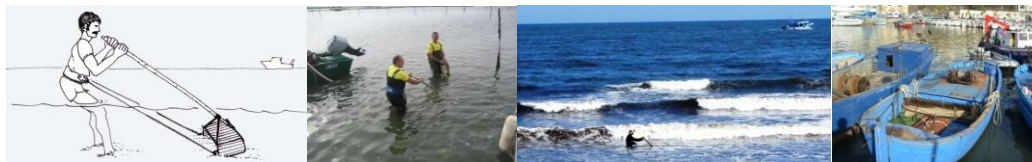
Country	2004	2005	2006	2007	2008
Albania	0	50	0	0	0
Algeria	0	0	0	43	17
Bulgaria	34	10	10	83	35
Croatia	121	90	132	3633	80
Egypt	1197	2093	2991	2500	2990
France	533	199	526	159	96
Greece	660	562	726	596	606
Italy	78180	18029	24678	32532	28168
Montenegro	0	0	0	2	0
Morocco	476	234	0	0	0
Romania	0	0	0	14	0
Russian Federation	9	2	0	0	0
Slovenia	2	4	0	1	6
Spain	981	1720	1019	1183	1267
Tunisia	551	632	489	838	658
Ukraine	62	84	0	236	311
<b>Grand Total</b>	<b>82806</b>	<b>23709</b>	<b>30572</b>	<b>41820</b>	<b>34234</b>

## Main fishing techniques

### Rakes on foot or from a boat

Clam digging is a common means of harvesting clams from below the surface of the tidal mud flats where they live. On foot the rake is pulled by the fisherman in a rocking motion, after which any clams caught end up in a collection basket at the end of the clam rake.

Another form of commercial clamming is done from a flat decked boat using a clam rake with a telescopic handle. The head of these rakes have long tines attached to a "basket-like" cage in which the clams are collected.

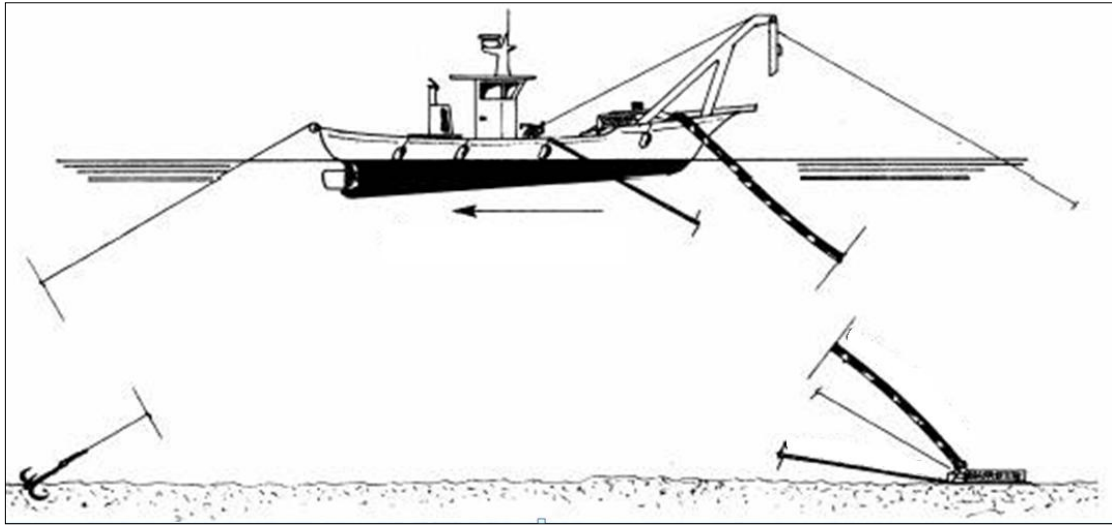


**Fig 2.** Figures showing the clamming activity and a typical rake

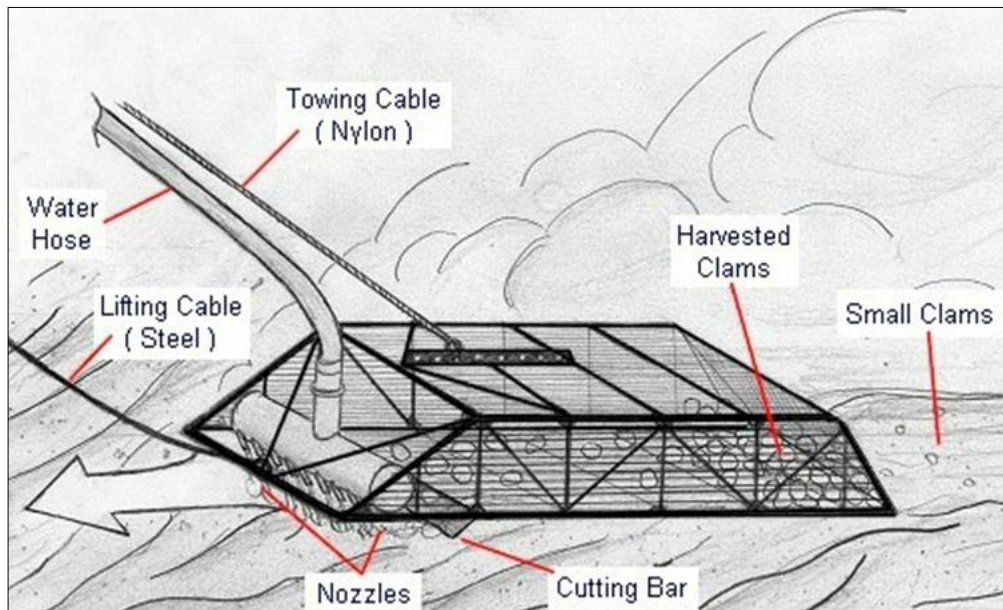
### Commercial clam fishing using Hydraulic dredges

Large scale commercial fisheries, fish with hydraulic dredges towed by boats. This technique is employed throughout the world for a variety of species on sandy or sandy-mud, at depths from 5- 20 m.

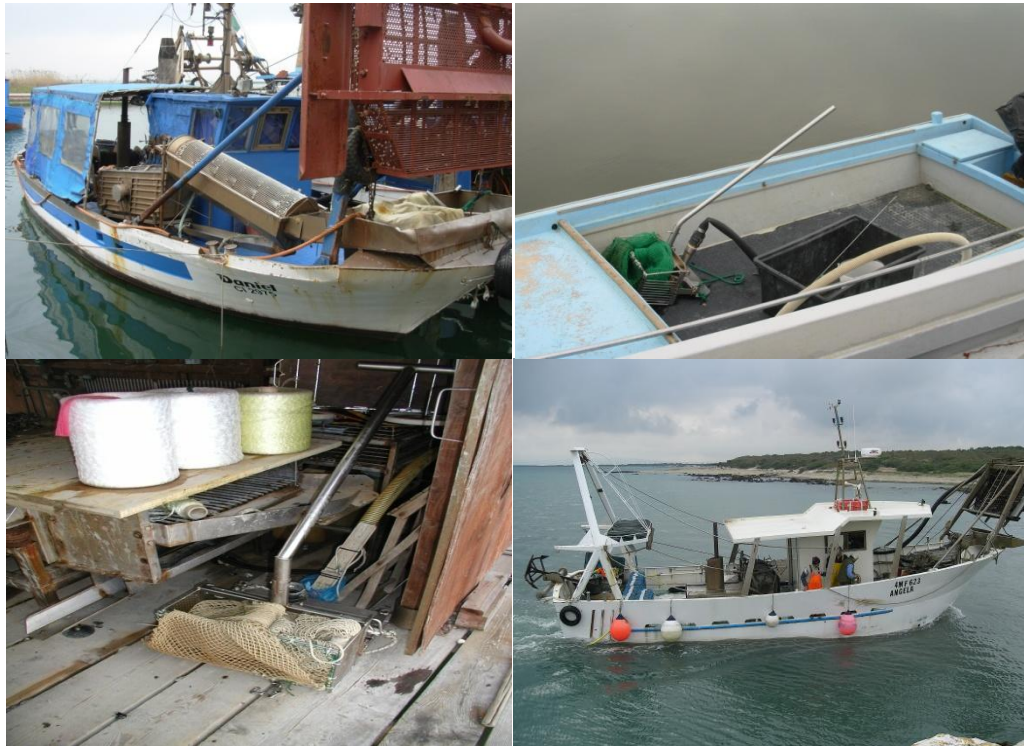
The dredge, a large steel construction, is dragged along the bottom by the clam boat. A large pump on the boat pumps sea water through a large hose to a manifold on the front of the dredge. The manifold jets the water into the sand, temporarily fluidizing it and allowing the dredge to pass through. Due to the carefully set spacing of the bars making up the body of the dredge most of the smaller clams and other organisms pass through, the larger clams being retained. The size of the grating of the dredger, the minimum width of the dredger, the minimum size of the fishable clams and the maximum daily catch are regulated by law.



**Fig 3.** Clam boat showing the fishing activity and the direction of the tow.



**Fig 4.** Diagrammatic representation of a hydraulic dredge during fishing.



**Fig 4.** Pictures showing some typical fishing vessels using hydraulic dredges.

In the Mediterranean the fishery is carried out with a vessel of 8-15 m in length with a tonnage not greater than 10 GT and an engine of about 150 HP. The fishing activity usually lasts for 6-8 hours and is carried out by two crew. In this six hours several hauls are made which take around 1 hour each. If operating conditions are good and the area chosen has proven successful, these steps are carried out from 9 to 10 times. While the captain is committed to operate the winch and the hydraulic pump, bilge, the sailor is committed to operate the screen and to wrap the fish in the bow. The only operation that is performed simultaneously by two crewmen concerns the recovery of the dredge on board and emptying it. Screening is done to prepare the bags which are then stacked along the starboard corridor where they are then removed once they arrive in port.

While the impact of hydraulic dredges on the bottom at first glance seems severe, the mechanical restrictions that the gear imposes - hose length, pumping pressure, etc. - limits their use to shallow water. The sandy bottom environments in these areas are normally exposed to far greater perturbations during winter storms and take such disturbances regularly. This means that such habitats are used to and have adapted to such perturbations.

## Main Target Species

### Common cockle (*Cardium edule*)



#### *Description*

The shape of the clam resembles that of a "heart", it is globular, slightly oblique, with about 19-20 spaced ribs which top off sharply at the bottom of the shell. An orange-red variety exists which has a higher economic value. The average diameter of the shell is about 4-5 cm and reaches market size in 1-2 years.

#### *Distribution*

It lives in environments rich in sediments and in particular in the muddy bottoms in the tidal zone, and brackish waters, especially near the mouths of rivers.

#### *Fishing method*

It is fished during all months of the year with a rake or by hand picking. It is a by-catch of the fishery of the venus clam.

#### *Consumption*

The meat is appreciated, but it is not highly sought after, when compared to the other clams. However it does not mean that the cockles, cooked by experienced chefs, can be more than acceptable.

### Smooth clam (*Callista chione*)



#### *Description*

The shell is thick, shiny, and crossed by concentric thin strips, and has a reddish brown, pinkish-brown, with darker radial zones. Internally it is whitish, glossy, with smooth edges and has a consistency that makes it similar to porcelain. The clams can measure up to 8 cm, but commonly found around 5-6 cm. It is not uncommon to find cockles that fill the entire palm of the hand of a grown man.

#### *Distribution*

The clams do not live near the shore, but from a few meters of water depth up to moderately deep, in sandy bottoms. The siphons of these animals are quite long and this allows them to be buried under a considerable layer of sediment.

#### *Fishing methods*

Fished at depths of 12-20 meters where there is coarse sand and usually located several miles from the coast. They are caught with the rake (diving) and the hydraulic dredge, slightly modified to operate at greater depths than the clam fishery.

### *Consumption*

The smooth clam has very tasty meat with delicate features on the palate. The specimens are preferred medium-sized as the larger ones (6-7 cm) are harder and a little tough.



### **Warty Venus (*Venus verrucosa*)**

#### *Description*

The shape of the valves is very similar to that of the common clam, but the outer surface instead of being smooth, is characterized by concentric striae of growth in relief-shaped blade, which are similar to the knots warts (hence the name). The colour varies from yellowish white to light brown, the interior is glossy white. It can reach 5-6 cm in diameter, but is often around 3-4 cm.

#### *Distribution*

Clams live on sandy bottoms, muddy or detrital and between seagrass meadows, up to about 20 meters. The warty venus is not a solitary mussel, but prefers to live in the colonies

#### *Fishing methods*

Fishing is conducted all year round with hand rake vessels and divers. Areas particularly rich in these delicious bivalves are able to offer scuba divers also 20-30 kg of clams per day, a source of income that should not be underestimated.

#### *Consumption*

consumption is concentrated in certain regions where there is a tradition to eat them raw. The warty venus is one of the most popular species of bivalve molluscs.



### **Bean Clam or Tellina (*Donax trunculus*)**

#### *Description*

The clam is a bivalve mollusc with the shell more or less triangular, The colour is white to yellowish, purplish or brownish with darker radial zones, the interior is white with large purple areas. The adult may reach 3 cm in length, but common at about 2 cm.

#### *Distribution*

The clam is a very common species in the Mediterranean, especially in the Tyrrhenian Sea, but also in the Black Sea, Atlantic and Red Sea. It lives in the sunken areas of sandy coasts, to a depth of 15 meters, but is most abundant in the first 1-4 meters near the coast. It is almost always found in colonies.

#### *Fishing methods*

Clams are fished throughout the year with any boat dredges, rakes and hand dredges

### *Consumption*

They are usually sold alive in tanks with sea water, but in some countries this now against health regulations. Their condition is assessed by taking into account the animal's reaction to stimuli. The meat of the clam is eaten both raw and cooked, the main palate of the clams cockles is sweetness and delicacy of their meat, for its small size it lends itself well as a dressing for different types of pasta.



### **Striped Venus Clam or vongola (*Chamelea gallina*)**

#### *Description*

Externally the shell is light brown, yellow-gray, with dotted rays, composed of striated or dotted lines or zig-zag. It is recognizable by the less elongated shape, the smaller and less tight circles of the outer surface of the valves. The maximum size is around 5 cm, the size of fished clams vary between 2.5 cm and 3.5 cm.

#### *Distribution*

It lives in sandy or sandy-muddy coast, usually up to 12 m deep in fine and homogeneous bottoms. The clam lives aggregate in shoals in the Mediterranean, the Caspian Sea, Eastern Atlantic, in the Adriatic and Tyrrhenian Sea.

#### *Fishing methods*

It is fished in a professional manner by hydraulic dredges, which penetrates a few inches in the sandy bottom. The progress of the dredger is facilitated by a jet of water suspending the sediment gradually accumulated, while the clams remain within the grid-shaped metal box.

#### *Consumption*

It is a very popular and ever present in European markets; it is marketed fresh, as frozen product and packed in boxes. In the EC, each package must have the health mark EEC, which guarantees the origin of the product and its safe for human consumption sanitation. They are usually used as a sauce for pasta.

### **Grooved carpet shell (*Tapes decussatum*)**



#### *Description*

The clam has a strong shell for a bivalve mollusc, white-yellowish-gray with darker streaks and spots. Similar species are the clam (*Chamelea gallina*), the Philippine clam (*Tapes philippinarum*) and Longone (*Venerupis aurea*). The clam may reach a maximum size of about 6 cm, but it is more common from 3-4 cm.

### *Distribution*

It is found in coastal waters or shallow lagoon, sandy, muddy or muddy and covered with vegetation.

### *Fishing methods*

Clam fishing is done by hand with a rake, usually fishing with dredges is prohibited.

### *Consumption*

Several species of clams have different characteristics, the clam is one of the most popular, its meat is sweet and soft, the Philippines has more size and more tough meat and the taste is less sweet. The clams should be purchased live and should not be bought from vendors that hold them in bowls with water.



### **Razor Clams (*Solen marginatus* and *Ensis siliqua*)**

#### *Description*

The razor clams live in hollow upright in the sand, with the shape of the shell in a sort of elongated tube, up to 12-17 cm long, with margins parallel, straight and sharp.

#### *Distribution*

Razor clams live sunken in the sand and are virtually invisible, their presence is revealed only with two holes that create a kind of eight shape in the sediment. In the sand the animal is able to release a very large robust foot, which is the most edible part of the shellfish.

#### *Fishing methods*








Razor clams are caught by hand and are easily identified by sport divers. A shovel can be used but one must be very quick, as the clams immediately burrow in the sand. An easier method is to use a thin metal rod with a tapered end like that of a dart, inserting it in the middle of the two holes extracting the mollusc trapped by the shell. The razor clams are caught in a professional manner with the hydraulic dredge that penetrates for about 20-25 cm. Spain has recently begun farming, while in Italy the product is still available totally caught.

#### *Consumption*

The razor is marketed mainly alive. Often in the inside of the shell there is sand and therefore must be washed very well. They are very good baked in the oven or on pasta.



**Table 2.** Summary table showing the main characteristics of the commercial clams.

Species	Image	Depth (m)	Commercial size (cm)	Main Fishing method
<i>Cardium edule</i>		1-10	4-5	Rake/hydraulic dredge
<i>Callista chione</i>		8-20	5-6	Hydraulic dredge
<i>Venus verrucosa</i>		8-20	3-4	Hydraulic dredge/rake
<i>Donax trunculus</i>		0-4	2	Rake
<i>Chamalea gallina</i>		1-12	2.5-3.5	Rake/hydraulic dredge
<i>Tapes</i> spp.		0-2	3-4	Rake /hydraulic dredge
<i>Solen marginatus</i> and <i>Ensis siliqua</i>		1-40	12-17	Hydraulic dredge/diving/rake

### Clam processing

Clams and bivalves may sometimes be consumed raw but mostly they are eaten cooked, canned or salted. One of the problems in clams is the presence of sand in the animal. In order to remove the sand clams are usually purified in a flow tank (figure 5). This 48-hour process provides the sweetest meat free of sand and grit. The purification process also helps to eliminate any bacteria and viruses which may be preset in the clams. This will depend on the conditions of local waters. The clams are then packed in sacs which include the name of the fished region, fished date, species and any other information for the traceability of the product.



**Fig 5.** Typical purification tank to remove sand with typical packing

In some factories once the clams are landed they are transferred to a processing plant where the meat is removed from the shell and the viscera (belly material) is separated from the clam meat. The clam meat is then chilled and moved directly to the processing facility where it can be canned, frozen, or processed into other value-added products. Frozen products are also ideal in warm countries due to the deterioration of the product in the summer months.

The processing of the product would increase the added value, by expanding the market potential such as introducing the product to new markets and customers. The added value could also be achieved for example by a 'manual of best practices' in the treatment of the product from the fishing operation to the first sale.

## **The Management System: A case study**

### **The clam fishery in the Adriatic: a case of self-management system**

In the Adriatic Sea, clam fishing is nowadays done by means of hydraulic dredges. This type of fishing was introduced relatively recently in the 1970`s since previously the clams used to be fished by hand rake and diving only. It`s main target resource is the clam *Chamelea gallina* (vongole).

**The current clam management system is the outcome of a long process that started from the early 90`s. With the introduction of the new fishing technique in the 80`s, fishing capacity increased dramatically and the resource became overexploited. New measures were immediately established by the national government; input and output measures were introduced and a specific licensing scheme was developed. A National Management Committee was introduced whose task was to co-ordinate the management measures governing this fleet segment.**

Towards the end of the 90`s, the failure of the strategy that had been adopted by the government was evident. Fishing effort was considered too high and the income of the fishermen declined dramatically. The management authority was considered responsible for the failure and fishermen asked for financial support and new regulations. Since then a new management approach was initiated.

The new management system aimed at:

- 1) shifting of responsibility from the central administration to ship owners or co-operatives,
- 2) replenishment of the clam stock and establishment of a sustainable ratio between effort and resource.

The National Management Committee was dismissed and Local Management Co-ordination Committees were established. The powers granted to these committees were provided for by a central regulation, which entitled them to determine daily catch quota, number of fishing days in a week, seasonal closures, maximum landings, area rotation, allowed gears, periods, landing sites, restocking areas, and other local regulations.

Basically, they were granted all the powers previously held by the Ministry, which were added to those already in their control.

Furthermore, an “inter-consortia” Committee were established at national level. Its aim was to improve the co-ordination of the catch and of the commercial flows among its members. As can be seen from the table below, this permitted an increase in prices, while reducing the level of exploitation.

No other clam licences were issued from 1<sup>st</sup> January 2009, a date in which reconsideration on the whole experience was foreseen.

It is still too early to draw final conclusions on this experience. However, except in case of an extraordinary environmental catastrophe, the sector is now having excellent results (see table 3).

**Table 3. Main indicators for clam fishery with hydraulic dredges (1996 - 2002; source IREPA-MIPAF).**

<b>Economic indicator</b>	<b>1996</b>	<b>2002</b>	<b>% Change</b>
Incomes/vessel (000 euro)	42	96	129
Gross profit/vessel (000 euro)	14	39	179
Added value/vessel (000 euro)	30	77	157
Incomes (mill. euro)	34	64	88
Gross profit (mill. euro)	12	26	117
Added value (mill. euro)	25	52	108
Licence value (000 euro)	130	500	285

In summary over the period 1996-2002 the following events were recorded:

- considerable growth of saleable gross production;
- constant decrease in fishing activity; and
- reduction of exploitation costs due to a more rational management of resources.

The successful management of the fleet was based on a progressive decentralisation of the decision level, ending up with a co-management regime where Territorial Use Rights for Fisheries (TURFs) were introduced.

A number of interesting issues can be derived from this experience.

They can be summarised as follows:

- the sedentary character of the target resource, which is distributed in specific areas easily identified in every fishing district, make things much easier;
- homogeneity of the fishery segment is another important aspect, allowing the introduction of rules largely accepted by all fishermen,
- when territorial exclusive rights are assigned fishermen are ready to take advantage of them,
- the existence of a co-management approach plays an important role; a command and control approach would have never been appropriate.

## Proposal for Egypt

In Egypt the landings of clams is approximately 3000 tons (FAO GFCM), while in other Mediterranean countries with similar environmental conditions (e.g. shallow sandy bottoms) and potential fishing ground the production is more than ten times this value (e.g Italy). According to the knowledge gathered during our visits most of this production is conducted by fishing activities by hand raking at depths from 0-1.5m. This production is considerably high when one considers that it is only derived from very shallow water. In Egypt due to the Nile delta and the presence of large shallow (0-20m) waters, with areas composed of sand, there could be a great potential for the exploitation of a variety of clams.

The EastMed project could support Egypt is exploring the possibility to determine if the clam resource exists, and then assist Egypt in developing this fishery, both in terms of management at sea, value added of the product and marketing. This should be a joint activity between GAFRD, fishermen co-operatives, scientific institutions (e.g. NIOF) and FAO EastMed. This could be done in a stepwise process as follows:

- 1) Draw up a proposal to make a survey in one area or port (e.g. Maadia, or Port Said).
- 2) Conduct a survey in the selected area using typical fishing techniques such as the clam rake or ideally with a small hydraulic dredge. The main aim of the survey will be to determine which species are present in the different depths, and their quantity ( $\text{kg}/\text{m}^2$ ). The survey could be extended to other areas after the initial results.
- 3) From the samples collected the quality of the clams has to be assessed in terms of suitability for human consumption, by assessing the bacterial and viral contents, and heavy metals.
- 4) After the results the treatment and purification (if required) of the clams can be determined.
- 5) At the same time a proposal will be drawn for the best fishing methods which could be used to harvest the resources. The fishing methods will depend on the type of resource (species and size), the depth of the resources and the potentiality to develop the fishery.
- 6) A proposal will also be drawn up on the best marketing strategy for the product, such as market for local consumption, or processing for export.
- 7) A proposal will also be drawn up on the best management strategy for this fishery, such as with the use of limited licences, gear restrictions by depth or distance from the coast, seasons, etc. Territorial Use Rights Fisheries (TURFs) could also be introduced.

This potential new activity should however respect two critical conditions:

- No increase of overall effort
- No decrease in employment

reduce the effort of trawlers in the shallow waters, diversify their production and possibly increase the yield of trawlers.

## Annex VIII Proposal for a pilot study on the collection of catch and effort data using a sampling approach in Antalya Bay, Turkey Phase I



Scientific and Institutional  
Cooperation to Support  
Responsible Fisheries in the  
Eastern Mediterranean



*FAO EastMed: CC03/info19*

### Third Meeting of the EastMed Coordination Committee Bari, Italy, 19-20 April 2012

**A proposal for a pilot study on the collection of catch and effort data using a  
sampling approach in Antalya Bay, Turkey Phase I**

**March 2012**

#### **Introduction**

In general like in every field information is essential for management. This also applies to fisheries. A simple example is the monitoring of the catches. The fisheries manager has to know if the catches are increasing or decreasing through time so that he can better judge the performance of the fisheries sector, such as how much is the sector producing? How many people it is employing? what is the revenue of the sector? The Fisheries manager can then take management measures in order to improve the performance of the sector, a classical example is the setting up of quotas.

Monitoring of catches can be used as an example to demonstrate the utility of collecting fisheries data. In the collection of catches there are two approaches on how catch data can be collected. The first one is through a census approach by measuring all the catches of all the fishing vessels in the fleet. One might think that this is the easiest method because one would record all the catches with no statistical calculations and have at the end one figure for the whole catches of the fleet. However, this approach is usually impractical due to the large number of vessels which can be present, and in most of the cases are artisanal in nature. In reality it is practically impossible to measure the catches of all the fishing vessels, since fishers do not want to declare catches in order to avoid filling the quota and not to pay taxes. A census approach can be also quite expensive since a large number of working force is required to collect and process the data. Furthermore due to the large work involved in processing large quantities of data such as in logbooks, the quality of the data may be very low with misreporting, incomplete and ineligible information.

When using a sampling approach to collect catch data there are many benefits opposed to a census approach. The main benefits are the following.

- i. **Reduced cost:** It is obviously less costly to obtain data for a selected subset of a population, rather than the entire population. Furthermore, data collected through a carefully selected sample are highly accurate measures of the larger population.

For example public opinion researchers can usually draw accurate inferences for the entire population from interviews of only 1,000 people. This methodology which is validated and reliable is routinely used in the elections of countries

- ii. **Speed:** Observations are easier to collect and summarize with a sample than with a complete count. This consideration may be vital if the speed of the analysis is important.
- iii. **Greater scope:** Sometimes highly trained personnel or specialized equipment limited in availability must be used to obtain the data. A complete census is not practical or possible to collect certain data. Thus, surveys that rely on sampling have greater flexibility regarding the type of information that can be obtained and can also assess the quality of the data. In fisheries this is very relevant when trying to estimate the biomass of the fish stock at sea, it can never be done by census since the fish are in the sea so sampling is the only solution.

It is important to keep in mind that the primary point of sampling is to create a small group from a population that is as similar to the larger population as possible. With that in mind, one of the features one should look for in a sample is the degree of representativeness - how well does the sample represent the larger population from which it was drawn? How closely do the features of the sample resemble those of the larger population? This feature is measured by estimating quality indicators of the parameters that are collected from the sample, which will show you how much your sample reflects the real population.

In the Mediterranean sampling of catch and effort is usually done on a sampling based approach. With respect to biological data this is always done on a sampling based approach since there is no other option. In a country with a fleet of around 15,000 vessels, a sample of around 1,500 which is around 10 % of the fleet can be collected. This avoids sampling of all the vessels, and therefore it is much less costly, more efficient and with a higher quality.

The example of catches can be used for every parameter which is collected fisheries including fishing effort, socio-economic data and biological data. In phase I of the pilot study only catch and effort data could be collected, while in future phases biological and socio-economic data could be included.

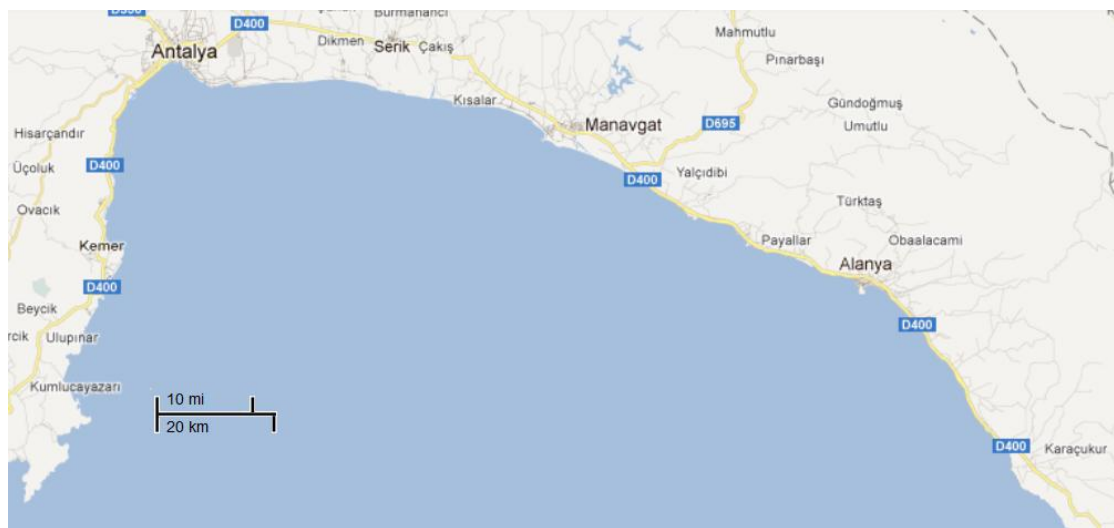
## **Sampling Methodology**

### **Geographical Area and temporal stratification**

In the case of Turkey a pilot study on the collection of catch and effort data could be conducted in the geographical area of Antalya bay considering all fishing ports. The data

collection would involve collecting catch and effort data using a random sampling approach from the population of fishing vessels fishing in Antalya bay. The population of fishing vessels might not be necessarily all present in one port, but it could be dispersed in several ports (figure 1). The important thing is to define properly the fishing ground (Antalya bay in this case) and then determine the population of fishing vessels fishing in there.

The temporal stratification for the catch and effort data should be monthly, however the data could be collected every week.



**Figure 1.** Map showing Antalya bay, with major fishing ports.

### **Fleet Segmentation**

In order to prepare the sampling scheme for the data collection technical information on the fleet is required. The information is required in order to stratify the fleet and obtain the sample size per fleet stratum. The strata will be made up by the size of the vessel and gear category. It could follow the fleet segmentation either of the General Fisheries Commission for the Mediterranean (GFCM task I) or that of the European Union (Commission Decision 93/2010), which is also compatible with the GFCM Task I segmentation.

The information required on the population of fishing vessel includes:

- i. vessel registration number\*,
- ii. registration port,
- iii. name, address and telephone number of the owner\*
- iv. landing port,



- v. length overall (LOA),
- vi. Gross Tonnage (GT) and/or Gross Registered Tonnage (GRT),
- vii. kilowatt (kW) and/or horse power (hp)
- viii. year of construction,
- ix. fishing gears and special licenses or permit (e.g. special license for bluefin tuna purse seine).

This information will be required for every fishing vessel in the population. For the variables marked with an asterix(\*), due to confidentiality reasons, an identification number can be used (e.g. EU number) instead of this information. However it is extremely important that the identification number can be traced back to the respective information (i.e. vessel registration number and details of the owner).

Apart from the information on the population, basic information on the fishery, fishing gears and target species would be required.

Once this information is available, the sampling scheme can be devised.

### **Sample selection and data analysis.**

Once the information on the fleet is available and the fleet is segmented, a sample size of 10-15% from each fleet segment can be selected. The sample size will be determined depending on the size of the stratum. For example if the stratum has a low number of vessels, (e.g. 10 vessels) either the stratum is merged with another stratum or a census is undertaken for the stratum, which means that all the vessels are surveyed. After the sample size has been determined a random sample of fishing vessels will be selected from each stratum.

Direct interviews based on data sheets should be used to gather the data needed. The data collectors will have to survey the vessel in the ports and collect catch and effort data on a weekly basis. Information on catches, effort in fishing days, by type of gear, fishing areas and activity can be obtained.

After the data has been collected it can be entered into a database and the final estimates by month can be determined by attributing a weighting factor to the sample of the segment and then raise the data to the total number of vessels within the segment. Estimates of total catch and effort for the entire fleet by month and fleet segment can be produced together with quality indicators. Catch per Unit of Effort (CPUE) can also be produced which could give a first indication of the status of the fisheries resources.

### **Human Resources**

#### **Lead scientist**

A lead scientist will be required. This person should be highly qualified with expertise in fisheries biology. The duties of the lead scientist should be:

- a) To follow and deeply understand the methodology that will be used in the collection of fisheries catch and effort statistics.
  - b) To act as a reference point for the EastMed staff for any questions which may arise during the pilot study.
  - c) To check the progress of the survey every day, for example check how much data was collected and have been conducted in a particular day and any problems that the data collectors might encounter.
  - d) To check that the survey is conducted by direct interviews.
  - e) To assist the data collectors as much as possible and to follow all the procedures for data collection and eventually data entry.
  - f) To work in close collaboration with the EastMed staff before, during and after the implementation of the survey, including in the field activities.
  - g) To check and validate all the catch and effort information that is collected for any errors or inconsistencies in the data.
  - h) To analyze the data and produce the required catch and effort estimates.
- One essential requirement is that the lead scientist will be able to understand well the methodology that is used so that he could in theory continue such surveys without the technical assistance of the EastMed project. After the end of phase I of the pilot study, the scientist should also be capable of undertaking surveys for the collection of biological and socio-economic data with the assistance of the FAO EastMed project.

After the completion of the pilot study with all the phases the scientist should also be capable of undertaking catch, effort, biological and socio-economic (with the assistance of an economist) surveys throughout the country.

### **Data collectors**

A group of data collectors will be required who ideally have a good knowledge of the fisheries, with good knowledge on fishing gears and the associated catches. The data collectors will be the main working force through which the data is collected. The duties of the data collectors should be:

- a) To undertake catch and effort surveys.
- b) To follow the methodology that will be used in the collection of fisheries catch and effort statistics.
- c) To undertake the survey by direct interviews.
- d) To undertake sampling in ports, cooperatives, auction sites, at fishers` homes or in any place that is appropriate for the fisher or his/her representative.
- e) To work outside office hours, and whenever possible in order to find the fishers or his/her representative for the data collection.
- f) The data collectors would be required to fill in the appropriate data sheets for the collection of catch and effort statistics.
- g) The data collectors should enter the data collected in the appropriate database.

## **Training**

One important aspect of the pilot phase will be training. All the staff that will be involved in the pilot study will be trained by the EastMed project. The training could take the form of lectures and training in the field. Visits to other countries in which catch and effort data collection systems are routinely conducted could also be arranged. This would help the staff involved to understand how the complete data collection system works from the landing port to the data entry and data analyses, with hands on practical experience.

The training could be started once the sampling scheme (stratification, number of samples, etc), and methodologies for the processing of data has been agreed. The training and/or visit to a country could be started one month after the sampling scheme has been finalised.

One month after the entire training has been completed a pilot data collection for catch and effort data can be started.

## **Period of phase I of the pilot study and future work**

The period for the proposed phase I could be 6 months (Annex I).

After 6 months if the staff involved has acquired enough experience, is confident of the data collection system and the data is of good quality, phase II of the pilot study could be initiated.

Phase II could involve the inclusion of socio-economic data in the data collection system. Catch and effort data collection should be continued and at the same time socio-economic data would be collected. During phase II the staff would be trained in the collection of socio-economic data with the conduction of a one-off survey, followed by training in data analysis. In this case an expert in socio-economics should be identified and participate with the Turkish team. Phase II could be continued for a period of another 6 months.

If after the termination of phase II the staff are confident with the collection of catch, effort and socio-economic data phase III could be initiated. Phase III would involve the collection of biological parameters for the most important commercial stocks in Antalya bay. Training would be conducted in the collection and analysis of biological data following a similar approach for phases I and II. Phase III could continue with the collection of catch, effort, socio-economic data and biological data for one year (Annex I).

For both phase II and III a proposal similar to this would have to be drawn up.

## **Conclusion**

The collection of catch, effort, biological and socio-economic data is essential for the management of fisheries resources according to the Ecosystem Approach to Fisheries management (EAF). The data collection of all these parameters has to be collected in coordination since they are intrinsically dependent on each other. Every part of the data collection process will provide information on different aspects of the fishing industry from the social, economic and biological point of view, so that the fisheries manager can take the necessary management decisions.

The implementation of a pilot study in Turkey would be the first step for the country to evaluate if a large scale data collection system in the country is feasible and worthwhile. The aim of the FAO EastMed project is to assist Turkey both from the technical and financial point of view so that the country can develop its capacity to monitor fisheries according to the EAF and in line with the FAO code of conduct for responsible fisheries and to continue doing so on its own, without outside assistance.

**Annex I Time schedule for the Pilot study with proposals for Phases I, II & III**

	<b>MONTH</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>+</b>
<b>Phase I</b>	<b><u>Collection of catch and effort data</u></b>																	
	Gather information on the fleet	X																
	Produce fleet segmentation and sample size	X																
	Train lead scientist and data collectors		X															
	Start data collection for a period of 6 months			X	X	X	X	X	X									
	Training to the lead scientist on data analysis									X								
<b>Phase II</b>	<b><u>Collection of socio-economic data</u></b>																	
	Adapt sampling scheme for catch and effort to socio-economic data										X							
	Decide on the socio-economic variables which should be collected										X							
	Train lead scientist and data collectors											X						
	Conduct a one-off survey											X	X					
	Train a socio-economist on data analysis													X				
<b>Phase III</b>	<b><u>Collection of biological data</u></b>																	
	Analyse catch, effort and economic data to determine the most important commercial species													X				
	Decide on a sampling scheme for biological data, including the variables which should be collected													X				
	Train lead scientist and data collectors														X			
	Start data collection for a period of 1 year															X	X	

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