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GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

SCIENTIFIC ADVISORY COMMITTEE

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REPORT OF THE SIXTH SESSION OF THE SUB-COMMITTEE ON ECONOMIC AND SOCIAL SCIENCES (SCESS)* ROME, ITALY, 27-30 SEPTEMBRE

*** Available only in English**

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

(GFCM)

SCIENTIFIC ADVISORY COMMITTEE

REPORT OF THE SIXTH SESSION OF THE SUB-COMMITTEE MEETING ON ECONOMIC AND SOCIAL SCIENCES (SCESS)[1]

Rome, Italy 27-30 September 2005

1. OPENING OF THE MEETING

The Sub-Committee on Economics and Social Sciences (SCESS) of the General Fisheries Commission for the Mediterranean (GFCM) held its Sixth Meeting from 27 to 30 September 2005 at the FAO headquarters in Rome. The meeting was opened by Mr. Malouli Idrissi, the Sub-Committee Coordinator, who thanked the participants.

2. ADOPTION OF THE AGENDA AND ARRANGEMENTS OF THE SESSION

The Sub-Committee adopted the agenda of the meeting (Annex 1). Mr. Malouli was designated Chairman and Rapporteur.

The meeting was attended by 7 scientists from Italy, Morocco, Spain, and the European Commission (the list of participants is attached in Annex 2). Concern was expressed in relation to the lack of attendance by the majority of Member States.

3. REVIEW OF THE RECCOMMENDATIONS OF THE TWENTY-NINTH SESSION OF GFCM, THE SEVENTH SESSION OF THE SAC, AND THE FIFTH SESSION OF THE SCESS

The Coordinator presented the past recommendations made by the GFCM and the SAC, to the SCESS. The principal recommendations comprised:

1. Further developing studies on socio-economic indicators to cover all GSAs and establishing reference point values to be tested in selected areas;
2. Updating and monitoring information on the fisheries management legal framework in GFCM members;
3. Establishing the minimum quality standards for socio-economic data and information; and
4. Undertaking market studies in relation to fisheries management in GSAs where indicators are gathered.

4. INTERSESSIONAL ACTIVITIES

a) Presentation of reports on the Operational Units Concept during the joint meeting of SCSI/SCESS

1) Mr. Patrick Berthou presented the following definitions as a starting point for the Operational Units (OU) concept:

[1] As submitted by the Sub-Committee Coordinator.

Fishing activity or métier: A group of fishing trips targeting the same species, using similar gear, during the same period of the year and/or within the same area. Appropriate aggregations of fishing activity types are the basis for biological sampling. Fishing activity refers to métier.

Fleet: A group of fishing vessels sharing, during a reference period (e.g. one year), similar characteristics in terms of technical features, economic structure and fishing activity (major or combinations). Vessels may have different fishing activities during the reference period, but they can be classified in only one fleet. The fleet is the unit for sampling economic data.

Operational unit: Group of fishing vessels practicing the same type of fishing operation, targeting the same species or group of species and having a similar economic structure. The grouping of vessels may be subject to change over time, and depends on the management objectives to be reached. During a year, a vessel may switch between operational units. However, a vessel belongs to the same fleet segment during that year. The operational unit combines the concepts of fleet and of fishing activity. The OU can be considered as a third dimension of the matrix for management purposes.

Through an example, it is possible to resume the above basic concepts.

"Shamrock" is a small-scale vessel with a Loa of 11.98 m, registered in the Saint-Quay harbour, Saint-Brieuc district (North Brittany). He has got the following **calendar of fishing activity** during the years 2003 and 2004:

- Dredging scallops in the bay of Saint-Brieuc (VIId), from November to March
- Dredging scallops in the bay of Granville (VIId), from October to December
- Inshore trawling targeting sole in bay of Saint-Brieuc (VIId), from September to March
- Inshore trawling targeting Nephrops in South Brittany (VIIIa), from April to July,
- Inactive in August.

In terms of fisheries management, this vessel needs one **licence** for scalloping on the bay of Saint-Brieuc scallops bed, one **licence** to fish in the bay of Granville, and a **permit** for trawling in the Nephrops fishery of South Brittany. It could be notice that no permit is required for the sole trawling in the bay of Saint-Brieuc.

Based on generic segmentation, it belongs to one **fleet,** the "*trawlers-not exclusive*", and to be more detailed to one sub fleet, "*trawlers-dredgers*".

It is involved in three basic **métiers**: scallop dredging(6 months), Nephrops trawling (4 months) and sole trawling (6 months).

In terms of **operational unit**, he belongs to the Scallop dredgers of the Bay of Saint-Brieuc OU, to the Bay of Granville OU and also to the South Brittany Nephrops trawling OU. According with regulation changes, he could belong to new OUs.

Let us precise that in the South Brittany Nephrops **fishery,** two different métiers are used: bottom trawl and pot.

2) Mr Ramon Franquesa and Mr Paolo Accadia presented two documents on the Operational Unit (OU). These documents were requested by GFCM Secretary and represent a preliminary contribution to the final document on OU planned during the transversal workshop on Operational Units and Fishing Effort Measurement, held in Tangiers, Morocco, on 4-6 July, 2005. These documents would serve as the basis for discussions within the Sub-Committees meetings and could form the starting point for the development of a manual on the implementation of the OU concept throughout the Mediterranean, as decided in the meeting in Tangiers.

Both documents described the concept and the origin of OU, the evolution of this concept, the increasing consensus about the possible use of OU as a practical management tool, and the approaches adopted in the practical application of this concept by the AdriaMed and CopeMed Projects.

The document presented by Mr Accadia highlighted the difficulties in identifying homogeneous groups of vessels from biological, economic and technical point of view. This difficulty is particularly present within the Mediterranean fisheries, where most vessels operate by means of several fishing gears and targeting a variety of species. Mr Acadia stressed that the main objective of OU should be to support the management of complex Mediterranean fisheries by identifying and describing homogeneous groups of vessels.

The document proposed by Mr Accadia focused mainly on the applicability of the OU concept based on the experience of the AdriaMed Project. In this respect, problems in collecting economic data at the OU level, determined the identification of OU by using a fleet segmentation prospective.

By using this approach, positive results have been obtained in terms of identifying and listing the OU for all the Adriatic countries and of collecting technical, biological, and economic data for the OU identified.

The document presented by Ramon Franquesa described the history of the OU concept, the difficulties faced in its development, and the results obtained to this date. The document traced the history of the OU from its birth in 1999, with the idea to define and apply the Operational Units concept to collect data useful for fisheries management purposes. Since then, four meetings and five studies supported by COPEMED and ADRIAMED have strengthened the demand of GFCM to develop the OU concept and the ensuing data collection.

The report then documented the difficulties faced in developing the OU concept, highlighting the difficulties in defining fishing effort and the fact that, from an economic perspective, the economic data collection is feasible by fleet segmentation but more challenging by OU.

Given these experiences, a final proposal was suggested in the report's conclusions. Four tables form the basis of the proposal. The first table would contain data collected by fleet segment under the SAC classification; including the number of different activities undertaken by this fleet. The second table would include data collected on each fishing activity; hence defining the OU from the fleet segments in Table 1. Each fishing activity would represent a unique OU. The third table would contain the economic data for each fleet segment; these data having the potential to be disaggregated by OU in proportion to the activity/need for information and on the basis on particular samplings studies. The fourth table contains variables calculated from the second and third tables (See Annex 3 for a fictitious example of OU tables).

On the basis of joint SCIS and SCESS discussions and the following remarks, consensus was found on the latest OU data collection scheme.

- Given that it is necessary to initiate immediately the collection of basic data on effort to transform recommendations on resource management in to fishing effort proposals in an operative way;
- Given that there exists a GFCM-approved fleet segmentation;
- Given that there exist a GFCM agreement on Geographical Statistical Areas (GSA) divisions;
- Given that the collection of data are produced in the most part from national sources;
- Given that the collection on effort data is for fisheries management at the GFCM level and that this supposes the need for homogeneous data, with established data collection and analysis methodologies;
- Given that effort description needs to include capacity and activity dimensions;
- Given that the basic element that describes the operational units is the fleet segment;
- Given that the vessels of same economic characteristics, when trying to maximise their profitability, tend to use the same combination of operational activities around the year in a specific area;

- Given that the best procedure to develop a data base is to collect information starting from basic parameters and advancing toward most complex variables (i.e. from the easiest to the most difficult in terms of data collection);
- Given that the vessels characteristics are generally linked to the life-time of the vessel, but that operational activities can change each year depending on biological, legal, and economic conditions; and
- Considering that it is a high priority to collect data on the total dimension of the population of effort units (vessels) to allow for the introduction of additional information on fishing activities.

The following recommendations were made concerning the collection and use of OU data:

1. To adopt the following table containing the fleet data required for defining the OU within a country/sub-area /region.

Table 1 - Fleet and area variables

- **GSA**: GFCM Geographical Sub-Area
- **Country**
- **SAC Fleet segment**:
- **Vessel Number**: Number of fishing vessels belonging to the fleet segment.
- **Capacity** Gross Tonnage (GT) or Gross Registered Tonnage (GRT)
- **Operational Activity:** Open a code for each activity developed around the year. Code composed as follows:
  - First three characters indicate the United Nations country abbreviation
  - Followed by two-digit number identifying the GSA
  - Followed by the letter of the SAC fleet segment
  - Last 2-digit number indicates the specific Operational Unit number
- **Base ports**: port/s of operation of the given Operational Unit.

2. To adopt the following table containing operational unit data required for the main resource components variables.

Table 2 - Main resource and activity components variables per OU

- **Operational Unit code**: as above. For each the next data on the fishing activity practiced around the year
- **Activity**: Days at sea or hours fishing
- **Fishing gear**: abbreviated (two or three characters) according to the International Standard Classification of Fishing Gear (ISSCFG).
- **Target species** (FAO Code): scientific name of the bio-economically most important target species (up to a maximum of five species).
- **FAO species code**: The FAO three-letter code based on the English common name as from the International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP).
- **Main associated exploited resources:** the species, species group or assemblage exploited in association with the target species previously indicated.
- **Fishing period:** self-explanatory (e.g. annual, June to September)
- **Relative Weight**: Percentage of total vessels included in the fleet segment that practiced this activity
- **Areas** where this activity is practiced: expressed in descriptive way

3. To adopt the following table containing economic variables by Fleet Segment

Table 3 - Economic components variables

- **Gross Tonnage**: Total gross tonnage of fishing vessels belonging to the given Fleet Segment.
- **Horse Power**: Total engine power of fishing vessels belonging to the given Fleet Segment.

- **Employment**: Total number of people employed on fishing vessels belonging to the given Fleet Segment. The number of crew members can be estimated on a full time equivalent (FTE) basis.
- **Salary Share %:** Percentage of the revenues after discounting commercial costs, daily costs and fuel costs that pertain to the crew. It will be distributed among the crew as salary.
- **Landing weight**: Total landings in weight.
- **Landing value**: The volume of landed fish valued against actual market prices. It equals to quantities landed multiplied by the landing average price.
- **Vessel value of total Fleet**: This is defined as total invested capital – value of hull, engine, gear and equipment. The replacement-value method can be used to estimate this parameter.
- **Fishing days/y**ear per vessel: Number of fishing days per year.
- **Fishing hours/day per vessel**: Number of fishing hours per day.
- **Cost of fishing/day per vessel**: These include daily expenses incurred in fishing activity, such as fuel, lubricants, etc. They are variable costs that depend on the time spent in fishing.
- **Yearly Fixed costs per vessel**: These comprise costs not directly connected with operational activity, such as non-routine maintenance, vessel insurance, taxes and dues, etc. The fixed costs are all the costs that are inevitable to pay yearly, independently from the time spent to fish.

4. To adopt the following table containing effort variables by Operational Unit

Table 4 – Effort variables

Landing weight = as above
Effort measure = Capacity * Fishing Activity
LPUE = Landings per Unit of Effort

5. That **Effort** is to be expressed as a product of the Capacity and Fishing Activity for each Operational Unit, even if the landings data are available only at level of fleet segments. This information allows for the estimation of **LPUE**/**CPUE**: Landings/Catch per Unit of Effort.
6. In order to obtain specific catch and effort data, routine fleet and catch-effort data collection schemes must be in place at national level in order to obtain the OU related data. Sampling schemes do not necessarily need to be designed according to OU stratification, as long as data compilation could be made by OU.
7. That, when this data collection occurs and if it is deemed necessary, a standardization coefficient could be applied for each fleet segment and activity to obtain a measure of equivalence between the fishing effort of one group of vessels (fleet segment or OU) and another. For example, the fishing mortality factor of each group (estimated by biologists) could be used to standardize the effort measured in Level 1 (eg. 1 unit of fishing effort of a vessel in OU1 is equivalent to x units of fishing effort of a vessel in OU2 targeting the same species or group of species in a particular sub-area).
8. That a codification scheme to identify OU based on geographical sub-area, country, fleet segment, gear type, and spatial location be tentatively adopted.
9. That routine fleet and catch / effort data collection schemes must be in place at national level in order to obtain the OU related data. Sampling schemes do not necessarily need to be designed according to OU stratification, as long as data compilation could be made by OU.
10. That, as a follow up to the AdriaMed study and particularly the CopeMed Coryphaena study, further case studies be undertaken to analyze the socio-economic and biological impacts of potential effort reduction strategies affecting selected OU in particular sub-areas of the Mediterranean. These would further help demonstrate the use of the OU approach as a tool for fisheries management.

11. That, in carrying out work related to OU, collaboration with projects such as FAO/FIRMS is important in order to complete the FAO/GFCM inventory of fisheries and marine resources.

12. That, continued support from FAO sub-regional projects, along with national commitments, be ensured to maintain sustainable data collection schemes. In the case of EU members a specific attention to the Mediterranean collection of data is required to assure that the collection of data programs are coherent with the needs of GFCM.

    Note: EU fleet segmentation using the Matrix Approach[2] proposed is currently under review and Member States should note that the EU fleet segmentation differs in some aspects from the GFCM-approved fleet segmentation (Annex 4). There is, therefore, the potential that data collection/manipulation needs will vary amongst Members.

13. That all Sub Committees of SAC should work in the same categories. In particular the SCSA should address the issue as to whether or not biological data could be compiled and assessments be carried out by fleets segments and OU. SCMEE particularly can provide considerations on the incorporation of the ecosystem / environment approach to the OU work.

5. SOCIO-ECONOMIC INDICATORS

a) Presentation of the collective study "The estimation of economic indicators in the Western Mediterranean fisheries" (Algeria, Spain, Libya, Morocco, Tunisia), 2005.

Mr Franquesa presented the collective study "The estimation of economic indicators in the Mediterranean fisheries" supported by the COPEMED Project. The study began in 1999 and was finalised this year. The pilot study covered West Libya, Tunisia, Algeria, Mediterranean Morocco and Andalusia (Spain). The study provided a first picture on the economic trends in this area, based on a common methodology. The concept of Operational Units based in the SAC fleet segmentation (13 groups), to develop this analysis was used as disaggregated geographically at level of Local Operational Units (LOU). The LOU comprises the landing places and harbours of each 55 considered areas (each comprised from 15 to 50km of coast). The outcomes of the study show that the present segmentation allows to cover the most part of the vessels in the area. The high level of geographical desegregation (that produces 355 LOU) is useful for management purposes, but can be excessive for the GFCM level. In case of logistic limitation the geographical division can be limited to the statistical GFCM areas. In this case OU can be defined as *Fleet segment-Country*-GCPM *Statistical Area.*

b) Data collection in the EU

Mr. Pertierra presented the basic economic data requirements under the European Regulation 1639/2001 (see Annex 5). Data parameters and their level of aggregation for minimum, mandatory programme must be gathered by all EU Mediterranean countries. Requirements for the optional extended programme vary basically on the time and geographical aggregation level. The demanded data covers all EU fleet classified by an agreed segmentation based on total length, also applicable for biological sampling in order to carry out future bio-economic analysis. Data on processing industry will become mandatory starting in 2006. However, this obligation is under discussion and a "snap-shot" approach might be foreseen every 4 – 5 years, in future data collection exercises.

c) Presentation of the socio-economics situation of the Albanian fishing sector

Ms Forleo presented the "Albanian marine capture fisheries: a social survey and economic aspects of the sector". The document introduces the outcomes resulting from the Adriamed Social Survey of Albanian Marine Fisheries that was carried out in 2003 in order to gain a detailed insight into the social context of the Albanian fisheries. The ultimate scope of the survey is to contribute to provide

[2] EC data collection web site: http://datacollection.jrc.cec.eu.int/workshops.php

the basis for planning and management of national capture fisheries while ensuring that their social context is properly known and understood. The socio-economic aspects considered were characterised within three fields: 1. personal data; 2. maritime district characteristics and relation; 3. crew working conditions and fishing strategies (Annex 6).

For the success of the research, it was important to ensure that the survey be executed in cooperation with the Albanian Fishing Directorate and with the local support of FAO fishing statistic monitors.

The survey provided the fisheries management authority with an analytical tool for: the identification of target groups and the livelihood of the fishers; the identification of the motivation of the resource users; the evaluation of the working conditions and fishing strategies; the business practices and strategy. Moreover, the study allowed an analysis of the fisher intergenerational dynamics, the interrelation between the various roles within each maritime district and among districts.

Participants highlighted that many of this topics could be considered relevant because they can allow or impede the implementation of sectoral policies, or can modify their expected effects; some considerations where made for a practical application for the OU concept. The relation between data from interviewes and fleet segmentation was also noted as strategic for management purposes.

The Sub-Committee suggested the extension of the Albanian experience in other GFCM countries with the ultimate goal of defining a minimal list of social indicators to be collected throughout the GFCM fisheries.

In addition, the Participants pointed out the need to analyse the compatibility of the social indicators and the Operational Units framework in the context of the future GFCM database.

6. PRESENTATION ON WORK CONCERNING FISHERIES MANAGEMENT LEGISLATIVE FRAMEWORKS WITHIN THE MEDITERRANEAN

Ms De Young presented the recently released GFCM Studies and Reviews Report No. 75, Fisheries Laws and Regulation in The Mediterranean: A Comparative Study.[3] The report compiled the available information on the principal measures adopted in the Mediterranean countries concerning fisheries management of both the commercial and recreational fisheries. Participants noted some disparity in the legal frameworks across the Mediterranean and within individual countries and the ensuing difficulties to fisheries management within the basin, particularly in relation to shared stocks and monitoring, control and surveillance.

SCESS invited member countries to review the report and to provide any additional information, updates, or corrections to the report; including the enactment of any new law or regulation, or amendments of texts in force.

In addition, SCESS recommended that further analysis of the countries' legislative frameworks take place to assist in the harmonization of laws relating to access regimes to fisheries resources, management of fishing effort and fishing capacity, and monitoring, control and surveillance.

7. FISHERIES MARKET CONSUMPTION ANALYSES AND THEIR ROLE IN FISHERIES MANAGEMENT

Mr Spagnolo presented the results of the on-going work regarding the role of market forces in fisheries sustainability. Fish product demand is one of the seven major factors of un-sustainability in Mediterranean fisheries. The importance of this issue and its potential threat to the definition of a sound management scheme need to be incorporate when drawing the guidelines for action in Mediterranean fisheries.

[3] Cacaud, P. Fisheries laws and regulation in the Mediterranean: a comparative study.

Studies and Reviews. General Fisheries Commission for the Mediterranean. No. 75. Rome, FAO. 2005. 40p. Available at http://www.fao.org/documents/

As a matter of fact demand for fish and fisheries products in the region has been increasing steeply during the period 1976/1999, even if at a different rate depending on the area. As for EU Mediterranean countries, the rate of increase of demand range from 43% in Spain to 84% in Greece, while Italy and France show a 76% and 66% increase respectively. Per capita consumption shows an even larger difference according to the area. Non-EU Mediterranean countries show an increase in the range 100% to 377%, while EU Mediterranean countries average increase is about 43%.

Finally, FAO estimates show a 250% and 48% increase of fish product consumption respectively in EU Mediterranean countries and in other countries of the area.

As to the end of 2004 it could be said that excess demand in the area is a major cause of the increase in prices and, accordingly, of profits registered by the fleet in all countries. Industry reacted to this scenario by increasing fishing effort, either by increasing the number of fishing vessel or by increasing the level of activity at sea.

At the moment there is an opposite trend in the number of vessels. EU Mediterranean countries show a strong decrease in the fleet number and in their landings, while the opposite is true for other countries. Consequently, quite homogenously, the CPUE show a downward slope in all countries and the overall landings in the non EU Mediterranean countries show an inverted trend, meaning that landings started to decrease even with a larger fleet.

If the increase in demand further shows as expected, the trends forecasted may be a cause of problems to fisheries managers. In particular, experience has demonstrated that whenever price and profits are high, it becomes more difficult to introduce and implement so management strategies kenning at able to reaching equilibrium between stocks and fishing effort.

It is therefore necessary to correctly perceive the dimension of the threat to management emerging from the demand dynamic which could show to be explosive in the near future impeding any effort in moving towards a path of sustainability in managing fish resource.

It is further necessary, to build a homogeneous framework based on management plans at appropriate scale and to increase the capability to interpret trends and results emerging from an improved data collection system where market information should be considered together with biological and economic data. The role of market information and their impact should then be considered as an important factor bringing to un-sustainability.

In order to allow the development of a more homogeneous capability to interpret data, information and models, it is important to increase the level of cooperation among Mediterranean countries at all levels (industry, public authorities, research and statistics).

The Sub-Committee recognised that exogenous forces outside the industry strongly impact fisheries and fisheries management and that this importance has not been fully understood. Therefore, the Participants recommended that additional research take place and that coordinated efforts be made to gather and analyse existing data (e.g. FAO GlobeFish, EU, and national institutes).

8. SOCIO-ECONOMIC REFERENCE POINTS

a) Presentation of the conclusions and recommendations of the working group on biologic and economic indicators demersal fishery in Adriatic Sea (May 2005)

Mr. Accadia presented the results of the AdriaMed Working Group on Biological and Economic Indicators for Adriatic Sea Demersal Fisheries, held at the Laboratory of Marine Biology and Fisheries in Fano, Italy on 24-25 May 2005. The meeting was attended by 15 participants from Albania,

Croatia, Italy, Serbia-Montenegro and Slovenia. The meeting's objective was to achieve a technical review and assessment of the progress made by the AdriaMed Project on this issue and to assess the usefulness of biological and economic indicators in the fisheries management process.

The meeting produced a list of 20 biological indicators and 25 socio-economic indicators. Economic indicators comprised 6 indicators on economic performance, 8 on productivity, 4 on costs and prices, and one overall indicator summarizing economic sustainability. From the social point of view, the WG defined 5 indicators plus one overall indicator summarizing social sustainability.

The trends of these indicators were analysed using the so-called Traffic Light approach (see Annex 7 for example tables)[4]. Initially, reference values are set according to their percentile value in the following series:

- > 66th percentile
    - for productivity and performance indicators – 'good', green colour assigned
    - for costs indicators, 'bad', red colour
- 66th - 33rd ('intermediate', yellow) and
- < 33rd percentile
    - for productivity and performance indicators – 'bad', red colour
    - for costs indicators – 'good', green colour assigned

These initial ranges could prove inappropriate for some indicators and, therefore, may need to be reconsidered.

This approach was applied and presented by using data in the GSA 18 along the Italian coastline on three Operational Units (OU), as defined by the AdriaMed Working Group on OU: bottom trawlers less than 12 metres, between 12 and 18 metres, and more than 18 meters.

The work highlighted a critical condition for the demersal fishery in the GSA 18 from the economic and social points of view, due to decreasing trends in productivity. Even though all economic performance indicators showed minimum levels with regards to the period analysed (1996 to 2003), the fishery sector cannot be classified as unsustainable, since the Traffic Light table shows a yellow colour for the economic sustainability indicator.

The Participants welcomed this technique for describing the trends in the chosen indicators. In addition, the Sub-Committee agreed that more work was necessary to define references points for certain indicators.

In this stead, and with the desire to continue progress on the use of socio-economic indicators for fisheries management, the SCESS recommended the organisation of a technical workshop on the use of socio-economic indicators in fisheries management. Draft terms of reference for this workshop were discussed (Annex 8). The workshop would include the use of real data in the estimation of indicators, the analysis of trends and reference points, and examples of practical situations where the use of these indicators can contribute to the adoption of decisions on Fisheries management.

9. NATIONAL THEMATIC REPORTS

National thematic report listing on-going work related to SCESS was presented by representatives of Morroco, Spain, Italy and EC. (Annex 9)

[4] For an explanation of the Traffic Light Method, please refer to Annex I. A Brief Outline of the Traffic Light Method in Caddy, J.F.; Defeo, O. Enhancing or restoring the productivity of natural populations of shellfish and other marine invertebrate resources.FAO Fisheries Technical Paper. No. 448. Rome, FAO. 2003. 159p. Available at http://www.fao.org/documents/

10. SUGGESTIONS AND WORK PLAN FOR THE FOLLOWING YEAR

In summary, the SCESS suggested to the SAC the following for its consideration:

- The extension of the Albanian experience with social indicators to other GFCM countries with the ultimate goal of defining a minimal list of social indicators to collect throughout the GFCM fisheries.

- The analysis on the compatibility of the social indicators and the Operational Units framework in the context of the future GFCM database.
- The completion by Member States of Socio-economic Data Availablility tables to assist in the updating of FAO Circulaire sur les pêches n. 927, "The Economic Status of Mediterranean Capture Fisheries and Aquaculture" (Annex 10). Availability tables are to be sent to the SCESS Coordinator.
- The review by Member States of the Studies and Reviews No. 75, "Fisheries Laws and Regulation in The Mediterranean: A Comparative Study", and the provision by Member States of additional information, updates, or corrections to the report; including the enactment of any new law or regulation, or amendments of texts in force.
- The further analysis of legislative frameworks to assist in the harmonization of laws relating to access regimes to fisheries resources, management of fishing effort and fishing capacity, and monitoring, control and surveillance.
- The investigation of technical assistance toward the definition of a fisheries management plan framework that could be applied throughout the Mediterranean and toward the development of national capacities in the development and implementation of such management plans.
- The strengthening of data analysis and modelling capacities throughout the Member States by increasing the level of cooperation among all countries at all levels (industry, public authorities, research and statistics), including the training and dissemination of a common data analysis framework.
- The further analysis of the impacts of national and international market forces (both demand and supply side) on the fisheries industries and fisheries management.
- The use of the Traffic Light approach to analyse the trends in socio-economic indicators for use in fisheries management and the organisation of a technical workshop on the use of socio-economic indicators in fisheries management.
- The review of the proposed EU Fleet Segmentation by Member States to ensure coherence with the GFCM-approved Fleet Segmentation. However, Member States should not delay the collection of data following the GFCM Fleet Segmentation in the meanwhile.
- The investigation of requesting technical assistance from FAO regarding the implementation of the FAO's International Plans of Action (IPOA)[5], particularly with the development of National Plans of Action for the Management of Fishing Capacity.
- The adoption of the OU data compilation framework and recommendations proposed jointly by SCIS and SCESS as proposed in Agenda Item 4 (see related tables).
- The use by the MedFisis project of the proposed data collection tables in the establishment of national data collection systems.

[5] International Plan of Action for reducing incidental catch of seabirds in longline fisheries. International Plan of Action for the conservation and management of sharks. International Plan of Action for the management of fishing capacity. International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.

- As a follow up to the AdriaMed and CopeMed studies, further case studies should be undertaken to analyze the socio-economic and biological impacts of potential effort reduction strategies affecting selected OU in particular sub-areas of the Mediterranean. These would further help demonstrate the use of the OU approach as a tool for fisheries management.

- The need for further studies on the legislative, politicy, management, and economic aspects of recreational fisheries.
- The investigation of additional funding sources for human capacity development, in the field of fisheries management including contacts within the European Union and the FAO.
- The funding of the regional projects CopeMed, AdriaMed, and EastMed, especially given their necessary role in the functioning of GFCM activities.

11. ELECTION OF THE SCESS COORDINATOR

The Participants warmly thanked Mr Idrissi Malouli for his four years of contribution as SCESS coordinator and noted the difficulty to be faced in identifying an equally qualified successor.

Due to the absence of sufficient participants and thereby the lack of representation of Member States, the SCESS was unable to suggest the name of a new Coordinator for SCESS. Mr Malouli kindly offered to remain Coordinator in the interim.

12. ANY OTHER MATTER

Implementation of IPOA

The Participants discussed the possibility of requesting technical assistance from FAO regarding the implementation of the FAO's International Plans of Action (IPOA)[6], particularly with the development of National Plans of Action for the Management of Fishing Capacity.

Master's of Science on the Economics and Management of Fishing Activities, University of Barcelona.

Mr R. Franquesa repeated that the inaugural year of the Master's of Science on the Economics and Management of Fishing Activities was in progress with 14 participants from 5 Mediterranean countries. The initiative was organised by the Barcelona University and the CIHEAM, with support from the COPEMED-FAO and Spanish Government. A new edition of the Master is scheduled for the 2006-2008 period.

State of World Marine Capture Fisheries Management – Mediterranean reviews

Ms De Young discussed her on-going work reviewing marine capture fisheries management throughout the world. The reviews analyze the trends in legal and administrative frameworks, management regimes, and status of marine capture fisheries in each country and are presented as an informative reference for policy decision-makers, fishery managers, and stakeholders. Reviews for the Pacific and Indian Ocean countries are in the finalization process; while reviews for the Mediterranean and Black Sea countries are projected to take place in 2006. The results of this work will be presented in the next SCESS.

[6] International Plan of Action for reducing incidental catch of seabirds in longline fisheries. International Plan of Action for the conservation and management of sharks. International Plan of Action for the management of fishing capacity. International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.

Recreational Fisheries

The SFITUM[7] project, financed by the European Commission, was recently completed and the results will be published in the next weeks. This study provided a first methodological classification on the recreational fishing activities for the Mediterranean. One of the conclusions is the existence of important differences in the regulation between EU members including within the regions of each country. Another conclusion is the importance of this activity in economic terms.

A first Congress on Recreational Fisheries in the Mediterranean is scheduled from 21th to 24th June 2006 in Palma de Majorca, Spain, with the support of the Spanish administrations and the Mediterranean Federation[8].

A White Book on the fishing sector is now in progress under the SGPM Spanish Administration that comprises analysis on harvesting, investments, social, training, trade, aquaculture, recreational activities. The study shall collect information and provides analysis on the present situation to define future guidelines for responsible management on Spanish fisheries. Publication is expected in the first half of 2006.

A regional Congress on Fishery is scheduled the 4th and 5th November 2005 in Barcelona by the Catalonia Regional Government that includes thematic areas in fisheries, trade, environment and recreational fisheries.

In addition, in 2002/2003 EU Member States had carried out pilot surveys on recreational and game fisheries targeting tuna species and forwarded the results to the EC in October 2003.

The Participants acknowledge the importance of recreational fisheries in the GFCM area and the need for further studies on the legislative, politicy, management, and economic aspects of this activity.

13. ADOPTION OF REPORT

The report was adopted by the participants on September 30, 2005.

[7] Directed by Ana Gordoa from IEA Blanes-CSIC with participation from Spain, France and Italy. www.mas-web.com/sfitum/

[8] www.mediterranea-fpr.org

Annex. 1 AGENDA

1. Ouverture de la session

2. Adoption de l'ordre du jour et arrangement pour la session

3. Rappel et discussion des recommandations des dernières sessions de la CGPM, du CSC et des Sous-Comités

4. Activités intersession

4.1. Présentation des conclusions et des recommandations du Groupe de Travail sur les unités opérationnelles et la mesure de l'effort de pêche (SCSI, Tanger, Maroc, 4-6 juillet 2005) ;

4.2. Présentation des conclusions et des recommandations du Groupe de Travail sur l'Approche Ecosystémique (SCMEE, Tunis, Tunisie, 7-9 septembre 2005) ;

4.3. Présentation des récents travaux réalisés par les différents projets régionaux de la FAO.

5. Indicateurs socio-économiques

5.1 Présentation du rapport final sur les indicateurs socio-économiques de la

Méditerranée occidentale (Algérie, Espagne, Libye, Maroc, Tunisie), 2005.

5.2 Présentation des conditions de la collecte des données au niveau de l'UE ;

5.3 Présentation des expériences relatives à l'utilité des indicateurs dans la gestion des pêcheries ;

5.4 Présentation de l'étude sociologique en Albanie,

6. Présentation des travaux sur les législations et la réglementation des pêches dans des pays de la CGPM.

7. Analyse du marché et commercialisation des produits halieutiques : leurs rôles dans l'aménagement des pêcheries

8. Points de référence économiques

8.1 Présentation des conclusions et des recommandations du Groupe de Travail sur les indicateurs biologiques et économiques des pêcheries demersales en Adriatique, (AdriaMed, mai 2005).

8.2 Présentation des expériences relatives à la définition et à l'utilisation des points de référence dans l'aménagement.

8.3 Discussion des points de référence présentés dans les directives techniques n°8 de la FAO du Code de Conduite pour une Pêche responsable ("Indicators for sustainable development of marine capture fisheries").

9. Rapports nationaux

10. Réflexion interne sur les travaux réalisés par le Sous Comité

11. Recommandations en matière de recherche et développement

12. Programme de travail et activités pour 2006

13. Sélection du coordinateur du SCSES

14. Autres questions

15- Adoption du rapport

Annex 2.List of participants

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Annex 3. Operational Unit Tables Example (cases and codes are imaginary):

Write a paragraph introducing the example.

Table 1 - Fleet and area variable

- **GSA**: 3 GFCM Geographical Sub-Area
- **Country:** Spain
- **SAC Fleet segment**: M (Polivalent)
- **Vessel Number**: 156.
- **Capacity:** 75.000 GT
- **Operational Activity: ESP-3-M-01 / ESP-3-M-02 / ESP-3-M-03 / ESP-3-M-04 / ESP-3-M-05 / ESP-3-M-06 / ESP-3-M-07**
- **Base ports**: Valencia, Barcelona, Tarragona, Vilanova, Palamos, Blanes, Mataro, S.Carles, Vinaroz, Cullera.

Tables 2 - Main resource and activity components variables per OU

- **Operational Unit code**: **ESP-3-M-01**
- **Activity:** 3000 days
- **Fishing gear:** DRN
- **Target species**: Hake, Squid, Sole,
- **FAO species code**: XXX, CCC, GGG.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: January-March
- **Percentage of segment**: 20%
- **Areas where this activity is practiced:** GSA 3

- **Operational Unit code**: **ESP-3-M-02**
- **Activity:** 6000 days
- **Fishing gear:** LGN
- **Target species**: Hake
- **FAO species code**: XXX.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: April-September
- **Percentage of segment**: 20%
- **Areas where this activity is practiced:** GSA 3

- **Operational Unit code**: **ESP-3-M-03**
- **Activity:** 3000 days
- **Fishing gear:** DPR
- **Target species**: Tuna
- **FAO species code**: DDD.
- **Main associated exploited resources**: Swordfish.
- **Fishing period**: October-December
- **Percentage of segment**: 20%
- **Areas where this activity is practiced:** GSA 1

- **Operational Unit code**: **ESP-3-M-04**
- **Activity:** 6000 days
- **Fishing gear:** DRN

- **Target species**: Hake, Squid, Sole,
- **FAO species code**: XXX, CCC, GGG.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: January-June
- **Percentage of segment**: 50%
- **Areas where this activity is practiced:** GSA 3

- **Operational Unit code**: **ESP-3-M-05**
- **Activity: 6**000 days
- **Fishing gear:** LGN
- **Target species**: Hake, Squid, Sole,
- **FAO species code**: XXX, CCC, GGG.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: July-December
- **Percentage of segment**: 50%
- **Areas where this activity is practiced:** GSA 3

- **Operational Unit code**: **ESP-3-M-06**
- **Activity:** 3000 days
- **Fishing gear:** DRN
- **Target species**: Hake, Squid, Sole,
- **FAO species code**: XXX, CCC, GGG.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: January-February
- **Percentage of segment**: 30%
- **Areas where this activity is practiced:** GSA 3

- **Operational Unit code**: **ESP-3-M-07**
- **Activity:** 3000 days
- **Fishing gear:** LGN
- **Target species**: Hake, Squid, Sole,
- **FAO species code**: XXX, CCC, GGG.
- **Main associated exploited resources**: Octopus.
- **Fishing period**: March-December
- **Percentage of segment**: 30%
- **Areas where this activity is practiced:** GSA 3

Table 3 - Economic components variables

- **Gross Tonnage**: 75.000
- **Horse Power**: 200.000
- **Employment**: 845
- **Salary Share %:** 50%.
- **Landing weight**: 10.000 Tn
- **Landing value**: 25.000.000 Euro
- **Vessel value of Total Fleet**: 250.000.000 Euro
- **Fishing days/y**ear per vessel: 170
- **Fishing hours/day per vessel**: 9
- **Cost of fishing/day per vessel**: 1100 Euro
- **Yearly Fixed costs per vessel**: 100.000 Euro

Annex 4. Comparative Tables of Fleet Segmentations – GFCM and EU

Suggested gear- and length-based disaggregation of economic fleets for the EU Member States

FLEET (EU/DCR level)	Fleet (Regional level)	Length size (m)
Exclusive trawler	Bottom trawl	< 12 m
		12-18 m
		18-24 m
		> 24 m
	Pelagic trawl	< 24 m
		> 24 m
	Mixed bottom and pelagic	< 24 m
		> 24 m
Non exclusive trawler		< 12 m
		[12-24[m
		> = 24 m
Seiner	Exclusive seiner	< 12 m
		[12-24 [m
		[24-40[m
		>= 40 m
	Non exclusive seiner	< 12 m
		> 12 m
Other towed gear		< 12 m
		> = 12 m
Exclusive netter		< 12 m
		> 12 m
Other fixed gear		< 12 m
		12-24 m
		> 24 m
Inactive		All

GFCM Fleet Segmentation

Groups	< 6 metres	6-12 metres	12-24 metres	More than 24 metres

1. Minor Gear without engine	A	⇐		
2. Minor Gear with engine	B	C		
3. Trawl	⇒	D	E	F
4. Purse Seine		G	H	⇐
5. Long line			I	
6. Pelagic Trawl		⇒	J	⇐
7. Tuna Seine			K	⇐
8. Dredge		⇒	L	
9. Polyvalent			M	

Segments Description

A- Minor Gear without engine. All vessels less than 6 metres in length without an engine (wind or oar propulsion). Exceptionally, vessels without engine longer than 6 metres can be included.

B- Minor Gear with engine less than 6 m. length. All vessels under 6 metres length with engine, excluding trawl vessels.

C- Minor Gear with engine between 6 to 12 metres. All vessels between 6 to 12 metres length with engine, excluded specific gears as demersal trawl, purse seine, pelagic trawl and dredge.

D- Trawlers less than 12 m. length. All demersal trawlers less than 12 metres. Exceptionally, trawl vessels under 6 metres can be included.

E- Trawlers between 12 to 24 m. Demersal trawl between 12 to 24 metres.

F- Trawlers of more than 24 m. Demersal trawl with length of more than 24 metres

G- Purse Seines between 6 to 12 m.

H- Purse Seines between 12 to 24 m. Excluded Tuna Seine. Exceptionally, Purse Seines vessels of more than 24 metres, can be included

I- Long line of more than 12 m. Long line as exclusive gear more than 12 m. Exceptionally, vessels more than 24 metres, can be included.

J- Pelagic Trawlers. All Pelagic Trawl vessels, but normally this group is between 12 to 24 metres.

K- Tuna Seine. All Tuna Seine vessels.

L- Dredge. All Dredge vessels. Normally this group is between 12 to 24 metres, but exceptionally dredges under 12 metres can be included.

M- Polyvalent (and Other) longer than 12 m**.** All vessels longer than 12 metres, that use different gears along the year or use a gear not already listed in this classification.

Annex 5. Data Collection Requirements in the European Union

European Commission
DG Fisheries & Maritime Affaires
Research & scientific analysis Unit

Economic information by fleet segment

General description	Minimum programme 1st priority (annual)
Income (turn-over)	Total and per species
Production costs: -Crew (include social cost) - Fuel - repair and maintenance - other operational costs	Total and per production cost category
Fixed costs	Average cost, Calculated from investment
Financial position	Share of own/foreign capital
Investment (asset)	
Prices / species (*)	Value, tonne
Employment	Full time/ part time/FTE
Fleet	-No by segment -GT (average) -kW (average) -age (average)

European Commission
DG Fisheries & Maritime Affaires
Research & scientific analysis Unit

Economic information by fleet segment

General description	Extended programme 2nd priority
Landings per species	Seasonal (monthly) Stock (by ICES areas) Market category Regional differentiation
Income (turn-over)	Subsides (annually) Regional differentiation
Production costs: -Crew - Fuel - repair and maintenance - other operational costs	Further subdivision of operational costs Regional differentiation Differentiation of remuneration to crew according to position
Fixed costs	Regional differentiation
Financial position	Rents to external institutions Regional differentiation
Investment (asset)	By type of investment: hull of vessel, various engines and refrigeration/freezing, storage and lifting equipment
Prices / species	Monthly By market category Regional differentiation

European Commission
DG Fisheries & Maritime Affaires
Research & scientific analysis Unit

Collection of data concerning the processing industry*

- Minimum Programme:

conduct pilot surveys to assess the annual value per sector of mandatory parameters. These pilot surveys must compare the cost-efficiency relationship of different data collection strategies.

* mandatory starting in 2006

European Commission
DG Fisheries & Maritime Affaires
Research & scientific analysis Unit

Economic information by primary and secondary industry

General description	Minimum programme 1st priority (annual)
Raw material	Total and per species (tons)
Income (turn-over)	Total and per product
Production costs: -labour -energy -raw material (value) -packaging -other running costs	Total and per category cost
Fixed costs	Average costs, calculated from investment
Financial position	Share of own/borrowed capital
Investment (asset)	-Historical -Replacement -Insurance
Prices / product	Value, tonne
Employment	Numbers/ FTE
Capacity utilisation	Annual average

European Commission
DG Fisheries & Maritime Affaires
Research & scientific analysis Unit

Collection of data concerning the processing industry

- Extended Programme:

Any data that shall make it possible

i) to analyse the overall sensitivity of the sector and/or of the companies located in the coastal regions with respect to the catches from the stocks subjects to TACs and quotas and/or other management measures;

ii) to assess the impact (including social and economic impact) on the processing industry of measures taken by the CFP

Annex 6. Social Indicators from the Albanian Study

1. Fishermen: personal data

- Age
- Educational level (highest scholar degree; correspondence between educational level and work activity)
- Task, position in the crew
- Previous job/Future job
- Part time job (sector of activity, time spent, reason, % of income…)
- Father's job
- Household members by numbers, age, gender, job
- Minimum earnings to family livelihood (share of savings on salary)

2. Crew: working conditions and fishing strategy

2.1 Working condition

- N° of relatives in the crew
- Kind of payment (salary, % of sales …)
- Time of payment (week/month; beginning/end of period)
- Shared cost
- Risks at sea
- Occupational diseases, insurance and pension
- Employment contract
- Foreign people on board

2.2 Fishing strategy

- Decision level (community, vessel owner, crew members ...)
- Objectives (profit, household condition, cost efficiency …)
- Household situation

3. Maritime district: characteristic and relationships

3.1 Strength and weakness factors

- Type (owner association, trust union, co-operatives, and other local institution)

3.2 Membership

- Type (owner association, trust union, co-operatives, and other local institution)
- Purposes, activities, frequency, degree of satisfaction …
- Decision making (mechanism, power, enforcement, etc.)
- Local community identity and cohesion (places, occasion, institutions)
- Non fishery local institution (frequency and kind of relation …)

3.3 Market and sales

- Channels
- Market information
- Trade relationship (formal/informal, customary relation …)

3.4 Inter-maritime district relationship

- Kind of relationship (co-operation, competition)
- Factors in relation (Labour emigration (from, to), Information, Common association, Shipyard, repair, Services, Trade market)

Annex 7. Traffic Light Trends Analysis Table – Economic Indicators

INDICATOR	1996	1997	1998	1999	2000	2001	2002	2003
Economic sustainability (ROI - Risk_free_rate)(%)	**0.12**	**0.08**	**0.14**	**0.03**	**0.01**	**0.05**	**0.04**	**0.01**
•Added Value/Revenue (%)	0.70	0.67	0.71	0.57	0.51	0.53	0.48	0.47
•Gross Operative Margin/Revenue (%)	0.30	0.27	0.29	0.19	0.18	0.20	0.19	0.19
•ROS (Return on Sale) (%)	0.26	0.22	0.25	0.13	0.12	0.15	0.14	0.10
•ROI (Return on Investment) (%)	0.21	0.15	0.19	0.08	0.07	0.10	0.09	0.06
•Revenue/Invested Capital (%)	0.80	0.67	0.75	0.57	0.56	0.68	0.65	0.55
•Net Profit per vessel(000 €)	53.06	43.33	60.89	19.08	18.51	28.57	24.37	13.13
•Landings per vessel (ton)	64.40	64.41	75.69	45.96	45.04	54.84	50.12	37.44
•Landings per GRT (ton)	1.81	1.81	2.13	1.34	1.34	1.72	1.66	1.23
•Landings per day (ton)	0.37	0.38	0.45	0.31	0.27	0.28	0.24	0.22
•CPUE (kg)	10.50	10.80	12.58	8.91	7.90	8.77	8.08	7.17
•Revenue per vessel (000 €)	228.07	219.44	257.73	178.50	176.64	201.34	187.13	153.01
•Revenue per GRT (000 €)	6.40	6.17	7.25	5.20	5.25	6.32	6.20	5.03
•Revenue per day (000 €)	1.32	1.31	1.52	1.19	1.04	1.03	0.91	0.89
•RPUE(€)	37.18	36.79	42.84	34.62	30.99	32.20	30.16	29.32
•Average price (€/kg)	3.68	3.61	3.68	4.27	4.42	4.26	4.44	4.99
•Fuel cost per vessel (000 €)	31.74	32.10	32.18	37.32	44.88	47.07	50.34	41.42
•Fuel cost per day(000 €)	184.27	191.48	190.20	248.56	264.95	239.93	245.05	241.39
•Maintenance cost per vessel(000 €)	6.42	8.86	8.84	6.80	6.98	8.54	9.15	7.74

Traffic Light Trends Analysis Table – Sustainability Indicators

INDICATOR	1996	1997	1998	1999	2000	2001	2002	2003
Social sustainability (Salary - Minimum_salary)(000 €)	**11.22**	**10.48**	**16.77**	**8.92**	**9.29**	**12.18**	**7.97**	**4.92**
•Employed persons GSA 17(num)	4765.83	4518.74	5670.01	4835.47	4775.08	3884.12	3582.85	3969.00
•Landings per crew (ton)	15.33	15.03	18.31	12.26	13.90	16.62	15.24	11.36
•Revenue per crew (000 €)	54.28	51.22	62.36	47.62	54.50	61.03	56.90	46.43
•Crew per GRT (%)	0.12	0.12	0.12	0.11	0.10	0.10	0.11	0.11
•Salary per crew(000 €)	21.57	20.48	25.96	18.37	18.25	20.27	16.36	13.44

Annex 8. Workshop on the Use of Socio-Economic Indicators for Fisheries Management: draft terms of reference

Economic conditions are one of the factors that guiding the decisions on fishing management. But such economic information is not always available in a useful way for fishery management. In this sense a list of economic indicators was approved by the SAC from SCESS proposal.

Under the initiative of the SCESS and with the support of the ADRIAMED and COPEMED projects, some pilot studies were undertaken developed in recent years. These studies provided for the collection of data and the estimation of economic indicators in various GFCM countries.

It is felt timely to test the use of acquired indicators in actual fisheries management. A technical workshop will provide the forum for the analysis from real data and the evaluation of practical situations where the use of these indicators can contribute the adoption of decisions on Fisheries management.

In preparation for this workshop, the following activities will be undertaken:

- The preparation of guidelines to process available data in a way useful for providing information to fisheries managers These guidelines will provide cover the following topics:
    - Use of indicators for bioeconomic models
    - Use of indicators to establish hierarchy on fleets in relation their profitability, employment or other criteria
    - Use of indicators to predict the economic and social impact of the adoption of measures as fleet reduction, time reduction, or licenses redistribution between fleet segments
    - Use of indicators to establish compensation under action plans projects to involve and stimulate the fishermen participation.
    - Use of indicators to produce reference points and in trends analysis
- The elaboration of case studies by each invited national researcher in which existing management proposals could be analyzed in fisheries sectors having the required economic indicators. The pre-workshop elaboration of national case studies will assure the existence and availability of the relevant data.

These reports will be presented during the workshop and the case studies analyzed by the workshop participants.

The Workshop will produce a final report highlighting key findings and conclusions of the workshop, finalized guidelines, and recommendations for further work, if warranted.

Researchers from the GFCM area with the necessary experience for undertaking such an exercise will be invited to participate in the Workshop. Contributions from individuals outside the GFCM area may be invited to share their experiences in the use of socio-economic indicators in fisheries management.

Annex 9. National Reports

Rapport national du Maroc *(Malouli Idrissi Mohammed, INRH- Tanger)*

La pêche en Méditerranée marocaine participe vivement dans le développement du tissu économique national et particulièrement, la région du Nord. Elle se déploie sur l'ensemble du littoral et se compose de la pêche artisanale et la pêche côtière effectuées par les chalutiers, les sardiniers et les palangriers. D'autres activités sont présentes, telles que la capture du thon rouge par les madragues et la pêche sous marine.

L'institut National de Recherches Halieutiques, par le bais de ses deux Centres Régionaux basés à Tanger et Nador, s'occupe du suivi des aspects socio-économiques des différentes activités liées au secteur de la pêche : pêche côtière, pêche artisnale, etc.

Les principales activités socio-économiques sont focalisées sur les points suivants :

- La commercialisation des produits halieutiques

Dernièrement, il s'est avéré que l'étude des aspects touchant la commercialisation des produits halieutiques peut contribuer efficacement dans la gestion des pêches. Dans ce contexte, plusieurs programmes de recherche ont été mis en place par l'INRH afin de comprendre la problématique de distribution des principales espèces.

Actuellement, deux études sont en cours de réalisation, il s'agit :

- la commercialisation de l'espadon en Méditerranée marocaine ;
- L'étude des fluctuations des prix des petits pélagiques en Méditerranée marocaine.

Ces deux études contribueront à comprendre les caractéristiques de la commercialisation, notamment :

  - Les circuits ;
  - Les intervenants ;
  - L'évolution des prix ;
  - Les indicateurs de commercialisation ;
  - L'établissement des fonctions de demande ;

- Etude des indicateurs socio-économiques

Pour mieux approfondir la première étude sur les indicateurs socio-économiques de la pêche en Méditerranée marocaine, l'INRH est entrain de mettre en place un programme de suivi et de collecte de données socio-économiques, en respectant les recommandations de la CGPM.

Ce suivi nous permettra de comprendre la situation actuelle du secteur de la pêche en Méditerranée marocaine, d'autant plus :

  - d'avoir une idée sur la distribution et la dimension de l'investissement et son impact économique ;
  - d'évaluer la situation des différents segments de la flottille ;
  - d'évaluer les structures des coûts et d'investissement ;
  - de comprendre les défaillances sociales du secteur ;

- Etudes des aspects socio-économiques des pêcheries artisanales

La pêche artisanale en Méditerranée marocaine, est une activité qui assure une main d'ouvre importante et des apports considérables en devises, par l'exportation de la majorité de ces produits.

Vu la dispersion de cette activité le long du littoral, un programme de recherche est établi pour réaliser des études ponctuelles au niveau des zones et des pêcheries les plus importantes et les plus sensibles.

Jusqu'à présent, deux études ont été réalisées, la première a touché la lagune de Nador et la deuxième a concerné la pêcherie du thon rouge au niveau de Ksar Sghir.

Les résultats de ces études ont permis de ressortir :

- les principales caractéristiques socio-économiques ;
- les principales caractéristiques de la commercialisation ;
- l'estimation de l'effort de pêche et de la capture ;

National Report - Spain

The SFITUM[9] project, financed by the European Commission, was recently completed and the results will be published in the next weeks. This study provided a first methodological classification on the recreational fishing activities for the Mediterranean. One of the conclusions is the existence of important differences in the regulation between EU members include inside the regions of each country. Other of the conclusions is the importance of this activity in economic terms.

The next year is scheduled from 21th to 24th June 2006 a first Congress on Recreational Fisheries in the Mediterranean in Palma (Balearic Islands) with the support of the Spanish administrations and the Mediterranean Federation[10].

A White Book on the fishing sector is now in progress under the SGPM Spanish Administration that comprises analysis on harvesting, investments, social, training, trade, aquaculture, recreational activities. The study shall collected information and provides analysis on the present situation to define the future guidelines for the responsible management on Spanish fisheries. Their publication is scheduled in the first half of 2006.

A regional Congress on Fishery is scheduled the 4th and 5th November 2005 in Barcelona by the Catalonia Regional Government that includes thematic areas in fisheries, trade, environment and recreational fisheries.

[9] Directed by Ana Gordoa from IEA Blanes-CSIC with participation from Spain, France and Italy. www.mas-web.com/sfitum/

[10] www.mediterranea-fpr.org

Annex 10. Template Data Availability Tables for Country Submission

Template Table 1 - Socio-economic data

Items	Source Name	Source Type					Level of desegregation						Years	Frequency	Measurement Unit
		PB	PR	C	S	other	N	R	P	F	V	other			
1. Fleet															
• Number															
• Gross Tonnage															
• Horse Power															
• Length															
• Age															
• Type															
2. Exploitation strategy															
• Time at sea (days/year, hours/day)															
• No. of fishing operations/day															
• Duration of one fishing operation (hours)															
3. Employment															
• Direct employment (crews on board)															
• Indirect employment (shipbuilding, ship maintenance, shipchandlers, etc.)															
4. Investment															
• Vessel value ex novo (included equipment and gears)															
• Investment grants															
5. Income data															
• Landings weight by species and by area (specifying live weight, landed weight,…)															
• Landings value by species and by area															
6. Fixed costs															
• Insurance															
• Tax															
• Financial charges															
• Other fixed costs															
7. Salary share (%)															
8. Variable costs															
• Daily cost of gasoline															
• Ice and Food															
• Maintenance and repairing (included spare parts)															
• Taxes and other charges															
• Subsidies															
• Other variable costs															

(Source:AdriaMed. (2002) Source and Accessibility of Socio-Economic data in AdriaMed member countries. Paper presented at the AdriaMed Meeting "Aspects of Fish Markets in the Adriatic Sea Fishery Sector". (Ancona, 27th -28th June 2002). FAO-MiPAF Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea. GCP/RER/010/ITA/OP-07. *AdriaMed Occasional Papers*, 7: 27 pp.)

Template Table 2 - Other economic data

Items	Source Name	Source Type						Level of desegregation						Years	Frequency	Measurement Unit
		PB	PR	C	S	other		N	R	P	F	V	other			
1. Fishing gear type																
2. Exploitation strategy • Time at sea (days/week) • No. of fishing operations /month • Duration of one trip • Total time of work (hours/day) (at sea, at port, at market, other) • Fishing inactivity time (specify duration according to inactivity type)																
3. Vessel • Hull construction material • Distance of usual fishing area (miles)																
4. Vessel property • Kind of company • Owner/fisherman																
5. Employment • Direct full time employment (crews on board) • Direct part time employment (on board) • Direct occasional workers (on board)																
6. Investment • Vessel value at purchasing time																
7. Equipment cost • Cost of catching equipment • Cost of navigation equipment • Cost of freezing method • Cost of communication engine																
8. Market • Share of selling for geographical area • Share of fish sold into the local fish market • Share of selling for operator																

(Source:AdriaMed. (2002) Source and Accessibility of Socio-Economic data in AdriaMed member countries. Paper presented at the AdriaMed Meeting "Aspects of Fish Markets in the Adriatic Sea Fishery Sector". (Ancona, 27th -28th June 2002). FAO-MiPAF Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea. GCP/RER/010/ITA/OP-07. *AdriaMed Occasional Papers* , 7: 27 pp.)

Template Table 3 - Sociological data

Items	Source Name	Source Type					Level of desegregation						Years	Frequency	Measurement Unit
		PB	PR	C	S	other	N	R	P	F	V	other			
1. Personal data • Age • Educational level • Previous job • Part time job • Household members by numbers, age, gender • Household members Job: • actual / expected • Fish consumption (weekly) • Minimum earnings to family livelihood															
2. Fishing strategy • Decision level (community, vessel owner, crew members,…) • Objectives (profit, household survival, cost efficiency, …)															
3. Crew • Crew by status • Crew by age and gender • No. of relatives • Kind of payment (salary, % of sales, other) • Time of payment (week/month; beginning/end of period) • Shared cost															
4. Membership •Type (owner association, trust union, other local institution) •Purposes and activities •Decision making (mechanism, power, enforcement, …)															

(Source:AdriaMed. (2002) Source and Accessibility of Socio-Economic data in AdriaMed member countries. Paper presented at the AdriaMed Meeting "Aspects of Fish Markets in the Adriatic Sea Fishery Sector". (Ancona, 27th - 28th June 2002). FAO-MiPAF Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea. GCP/RER/010/ITA/OP-07. *AdriaMed Occasional Papers*, 7: 27 pp.)

Template Table 4 - Macro variables

		PB	PR	C	S	other	N	R	P	F	V	other			
1. Foreign trade data • Export for species • Quantity • Value (FOB) • Import for species • Quantity • Value (CIF) • Country destination/provenance															
2. Macroeconomic variables • Unemployment rate • GDP (by sector) • Population (gender, age, school)															

(Source:AdriaMed. (2002) Source and Accessibility of Socio-Economic data in AdriaMed member countries. Paper presented at the AdriaMed Meeting "Aspects of Fish Markets in the Adriatic Sea Fishery Sector". (Ancona, 27th -28th June 2002). FAO-MiPAF Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea. GCP/RER/010/ITA/OP-07. *AdriaMed Occasional Papers* , 7: 27 pp.)