

March 2010



**GENERAL FISHERIES COMMISSION FOR
THE MEDITERRANEAN**

**COMMISSION GÉNÉRALE DES PÊCHES
POUR LA MÉDITERRANÉE**



GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMITTEE ON AQUACULTURE (CAQ)

Seventh Session

Rome, Italy 8-10 March 2011

**REPORT OF THE THIRD COORDINATING MEETING OF THE
WORKING GROUPS (CMWG)***
FAO HQ Rome, Italy, 24-26 February 2010

*Only in English

OPENING THE MEETING

1. The chairperson of the Committee of Aquaculture (CAQ) and the Coordinating Meeting of the Working Groups (CMWG) Mr Spyros Klaudatos opened the meeting and welcomed the participants (the list of participants is available in Appendix B). He highlighted the relevance of the meeting within the context of the CAQ activities and gave the floor to the Technical Secretary of the CAQ, Mr Fabio Massa who welcomed the participants and recalled the main achievements of the previous two CMWGs held in November 2006 and September 2009 respectively. He reminded the participants that the CMWG was called to take stock and consolidate the results of the activities of the Working Groups (WGs) and SIPAM carried out during 2009, as requested by the Commission at its Thirty-third Session (Tunis, Tunisia, 2009). He added that the CMWG is also expected to review the recommendations put forward by the CAQ subsidiary bodies as well as to draw up a tentative work programme for 2010 whilst considering the one agreed upon by the CAQ at its Seventh Session (Tirana, Albania, 2008). The working documents of the meeting available for discussion were also presented (the list of documents is provided in Appendix C).

ADOPTION OF AGENDA AND ARRANGEMENTS OF THE MEETING

2. The Agenda of the meeting was introduced and adopted with some minor changes as reproduced in Appendix A. Mr Pablo Avila was nominated rapporteur of the meeting.

REVIEW AND FOLLOW UP OF THE MAIN ACTIVITIES AND CONCLUSION AS CARRIED OUT BY THE WORKING GROUPS AND SIPAM DURING 2009

3. The Chairperson introduced this point of the Agenda and invited the coordinators of the CAQ subsidiary bodies to present the main achievements of the activities carried out and requested the CMWG to review the results. He highlighted the amount of work achieved and the number of the meetings carried out during this intersessional period (in Appendix D). He also asked the participants to focus on the formulation of advice for specific management issues, which would be forwarded to the CAQ and the General Fisheries Commission for the Mediterranean (GFCM) for their consideration.

Working Group on Sustainability on Aquaculture (WGSA)

Fabio Massa presented the activities carried out during 2009 by the Working Group on Sustainability of Aquaculture (WGSA) and recalled that this WG is still in need of a Coordinator following the indication made by the CAQ. The CMWG was informed on the progress made by the WGSA within the activities of InDAM¹ “Indicators for Sustainable Development of Aquaculture and Guidelines for their use in the Mediterranean”.

4. This first year of activities of InDAM focused on the identification of a methodology and the organization of experts and stakeholders meetings. The list of indicators were identified for each relevant dimension of sustainable aquaculture development (governance, economic, social and environmental) and two pilot projects were implemented at Mugla (Turkey) and Monastir (Tunisia) aiming at receiving feedback from stakeholders. A selected bibliography and database on indicators of Mediterranean aquaculture were prepared and released through the SIPAM information system. A series of technical documents on keys issues concerning the use of indicators in support of the project were produced along with the results of the first year of InDAM. The main achievement as well as the main recommendation of the WGSA are reported in the Annex A of Appendix E

5. The CMWG acknowledged the progress made on the project activities in its first year and also recalled the importance of identifying a methodology and implementing a tool for the Mediterranean countries in order to describe the level of the sustainability of aquaculture activities with the participation of the different stakeholders.

6. Furthermore, with reference to the pilot actions carried out, the CMWG noted with satisfaction that the cooperative and participatory approach adopted by the WGSA (co-construction of indicators) contributed to the success of the project and ensured the acceptance of the results by the stakeholders. This approach is in accordance with the strategy for making progress on the development of sustainable aquaculture, as discussed on many occasions by the CAQ.

7. The CMWG stressed the relevance of the use of indicators for assessing the level of sustainability of aquaculture activities and monitoring the performance management of

¹ InDAM “*Indicators for Sustainable Development of Aquaculture and Guidelines for their use in the Mediterranean (InDAM) GFCM/CAQ*” is a project in support to the activities of the GFCM Committee on Aquaculture (CAQ) which is co-funded by European Commission DG-MARE. The InDAM project aims to establish a regional reference system for the development of sustainable marine aquaculture in the Mediterranean using indicators (governors, social-economy and environment) and its integration into coastal zone management.

aquaculture activities. It was questioned whether the same set of indicators could be used for the whole Mediterranean region, and participants agreed that this depends on the “production scale” or stakeholders’ interests and priorities. It was agreed that the number of indicators used is a key issue and that the application of a minimum set of indicators at Mediterranean level is fundamental and could serve as a basis for the adoption of a sustainable policy for aquaculture development.

8. The CMWG considered that a minimum set of indicators to describe sustainable aquaculture should be selected for the Mediterranean areas. The WGSA could provide advice in this regard on the basis of the results of local pilot studies as demonstrated by InDAM. It was agreed that these pilot studies should follow up the results obtained by testing the use of indicators and develop similar initiatives in other countries or areas, maintaining the cooperative and participatory approach.

Working Group on Siting and Carrying Capacity. (WGSC)

9. Mr Ioannis Karakassis, coordinator of the WGSC, presented the activities carried out during 2009. The CMWG was informed on the progress made by the WGSC within the activities of the SHoCMed project “Developing siting and carrying capacity guidelines for Mediterranean aquaculture within aquaculture appropriate areas”².

10. He presented the main results of the meetings convened and informed the participants that a series of reviews and papers on specific issues related to the interaction between aquaculture and environment in the Mediterranean area were made.

11. He also mentioned that a review on the legal framework of the existing procedures for site selection in the aquaculture across the Mediterranean, which identifies a series of legal aspects related to the planning, monitoring and licensing procedures. This will also provide the basis for harmonisation of standards and aquaculture policy and legal frameworks in the Mediterranean, as appropriate. The main achievement as well as the main recommendation of the WGSC are reported in Annex B of Appendix E

12. The difference between harmonization and standardization was highlighted by the CMWG and it was agreed that going towards a clear overview of activities in environmental monitoring in place, at country level, was required. At present, monitoring schemes are very variable among countries, agencies, and no environmental quality standards across Mediterranean countries are available.

13. Participants noted that during the last meeting of the WGSC, the monitoring of the activities of finfish marine aquaculture to evaluate the impact of aquaculture on the environment and vice-versa was considered a priority, using a minimum list of variables identified by the experts.

14. The CMWG emphasized that the aquaculture industry necessitates a suitable legal framework and simplified licensing procedures to contribute to sustainable development of aquaculture.

² SHoCMed: “Developing siting and carrying capacity guidelines for Mediterranean aquaculture within aquaculture appropriate areas *GFCM/CAQ*” is a project in support to the activities of the GFCM Committee on Aquaculture (CAQ) which is co-funded by European Commission DG-MARE. The SHoCMed project aims to produce criteria for enhancing the integration of aquaculture into coastal zone management by improving site selection and holding capacity and identifying environmental quality standards and reference points

Working Group on Marketing on Aquaculture (WGMA)

15. Mr. Ferit Rad, coordinator of the WGMA, recalled the main objectives of MedAquaMarket³ project “Regional Synthesis of the Mediterranean Marine Aquaculture Sector and Development of a Strategy for Marketing and Promotion of Mediterranean Aquaculture”. He stated that the MedAquaMarket project was formulated by the WG on aquaculture marketing during the first CMWG in 2006 to provide an assessment and a synthesis of the present situation of the Mediterranean marine aquaculture and to come up with a set of recommendations towards a strategy for promoting Mediterranean marine aquaculture, focussing on markets and marketing issues.

16. He went on to stress that the MedAquaMarket project has been successfully completed and referred to the main outputs of this project including: the preparation of 15 national reports by national experts using a standard common template, a market report on meagre (*Argyrosomus regius*) production and markets in the Mediterranean, a market data scheme to be included in SIPAM, and a final document entitled “Synthesis of the Mediterranean Aquaculture and Development of strategy for marketing and promotion of aquaculture” project including a final workshop titled “Development of a Strategy for Marketing and Promotion of Mediterranean Aquaculture” organized in Tangier, Morocco (27-28 October 2009)

17. Lara Barazi-Yeroulanos, international expert for the MedAquaMarket project, delivered a presentation about the report on “Regional Synthesis of the Mediterranean Marine Finfish Aquaculture Sector and Development of a strategy for Marketing and promotion of Mediterranean Aquaculture (MedAquaMarket)”. She briefly described the problems encountered in data collection, responsiveness of all member countries, the quality of the data submitted and the importance of having a common template to enable comparison across countries. A summary of the findings concerning industry structure, production by size grade, costs of production for both land-based and marine farms, and the legal and regulatory framework under which the industry operates followed. The second part of the presentation concerned the market characteristics for Mediterranean aquaculture products including consumption patterns, distribution channels, the image of the industry and the organic aquaculture market. In conclusion, a SWOT analysis for the industry was presented together with the principles upon which the recommendations for the development of a sustainable Mediterranean aquaculture industry were based. The main achievement as well as the main recommendation of the WGMA are reported in Annex C of Appendix E

18. The CMWG commended the work done by the working group on marketing of aquaculture products and underlined that MedAquaMarket project embarked on some important issues with respect to markets and marketing of aquaculture products such as structure of the industry, production and demand forecasts, consumption patterns, and distribution channels. In addition participants considered MedAquaMarket project as a first general assessment of the current situation at Mediterranean level as an essential starting point for further works of the working group on marketing of aquaculture products.

³ MedAquaMarket Project in “Support to the GFCM-CAQ Working Group on Marketing of Aquaculture Products: Development of a Strategy for Marketing and Promotion of Mediterranean Aquaculture” MTF/INT/943/MUL is operative since April 2008. The project is funded by the Spanish Government (Secretaría General de Pesca, Ministerio de Agricultura, Pesca y Alimentación).

19. Furthermore the CMWG noted with satisfaction the work carried out for the amount of data gathered with the valuable cooperation of countries and farming enterprises. It was also recalled that, in certain cases, the data was gathered in cooperation with the SIPAM national coordinators.

20. The recommendations made by the WGSAs, drawn up in the light of the results of MedAquaMarket, were reviewed and discussed by the CMWG.

21. During the discussion, participants dealt with the issue of how the image of aquaculture products could affect the market of the sector. The increasing public interest on environmental issues, the sustainability of food production, the interaction of the environment with the aquaculture activities and the use of fish meal for fish food, were considered to be factors which could have a negative impact on the image of aquaculture.

22. The case of capture-based aquaculture of the bluefin tuna was highlighted. This sector of Mediterranean aquaculture is also affected, due to the public perception of its impact on the environment and the natural bluefin tuna stock. However, the recent results of applied research in aquaculture, such as the first positive induced spawning of the bluefin tuna in Mediterranean sea accomplished at experimental level, are paving the way to juvenile mass production and could play a positive role in the future.

23. The CMWG also highlighted the importance of the influence of the global market, in particular in relation to the impact of aquaculture products imported from other regions as a result of globalisation.

24. The CMWG concluded that the main issues to be addressed in relation to marketing are: data collection schemes and information networks on markets and marketing, species and product diversifications, promotion of aquaculture and aquaculture products, promotion of the role of producer's organization in regulating of supply and price stability. In addition, participants considered that the issue of responsible aquaculture practices, certification and labeling were important elements for improving competition within the market.

Information system for the promotion of aquaculture in the Mediterranean Sea (SIPAM)

25. The Coordinator of SIPAM, Mr Mohammed Salem Hadjali, presented an overview of the activities carried out in the field of aquaculture statistics in 2009. He highlighted the aspects related to the implementation of GFCM Recommendation 33/2009/4 which binds GFCM Members to submit production data through the SIPAM Information System and which has been adapted accordingly by the GFCM Secretariat. With regards to the collection of data on production centres, he informed the CMWG that a set of specific parameters were proposed by the last annual session of SIPAM, since these are lacking in the current version of the Recommendation and thus ought to be amended, taking these parameters into account. He also referred to the progress made on the harmonisation of standards for the collection of aquaculture data as well as to the initial steps made towards the integration of databases of CAQ working groups into the SIPAM Information System. Finally, he stressed on the need for further commitment from the GFCM Members to meet their obligation in the submission of data which are essential for the sound management of aquaculture in the region.

26. Following Mr Hadjali's presentation, Mr Matthew Camilleri (GFCM Secretariat) demonstrated the functions of the new SIPAM production data submission portal together with the statistical summary reports. He reported that so far eight GFCM Members had submitted a total of 160 data records for the reference year 2008, in compliance with GFCM Recommendation 33/2009/4. He added that data for previous years submitted to SIPAM, prior to the adoption of the GFCM Recommendation on aquaculture statistics, have been retained in the database and that National Coordinators should also be encouraged to review these data and amend them if necessary. The main achievement as well as the main recommendation of the SIPAM are reported in the Annex D of Appendix E

27. The CMWG acknowledged the recent progress made in the development, web page layout and functionalities of SIPAM within the framework of the GFCM; however participants expressed their concern on the lack of commitment of several GFCM Members to submit the required information. With general consensus that the GFCM, *inter alia*, should be the reference regional entity for information on the aquaculture industry in the Mediterranean and Black Sea. The CMWG strongly recommended that more pressure should be exerted, through both official and informal channels, on National Coordinators to submit the most reliable data in a timely manner. The participants also recognized the importance of bringing this issue to the attention of the Compliance Committee of the GFCM. Finally, the CMWG agreed that further strengthening cooperation with other international institutions such as EUROSTAT would be beneficial to the GFCM in its endeavour to compile data on the aquaculture industry/production. At Mediterranean level, marketing represents a real problem in the field of aquaculture and a recommendation for improving data collection on this issue would be needed in the GFCM area.

28. The meeting agreed that the activities, as presented by the coordinators of the working groups and SIPAM and reviewed and discussed by the CMWG, are in line with those included in the 2009 workplan as adopted by the CAQ at its Sixth Session (December 2008) and approved by the Commission at its 33rd Session (March 2009).

PRELIMINARY WORKPLANS FOR 2010 OF THE WORKING GROUPS AND SIPAM

29. This point of the agenda was introduced by the Chairperson who invited the Coordinators to present the workplan of activities. It was recalled that the SHoCMed and InDAM projects are funded on a yearly basis and therefore some of the activities will be carried out in 2011. Both projects are funded by EU-DG Mare and the annual workplans are based on the results and priorities identified by the WGSC and WGSa respectively.

Workplan of the Working on Sustainability on Aquaculture (WGSa)

30. The workplan of the WGSa was presented by Pablo Avila. It was introduced on the basis of the activities for the second year of InDAM that were reviewed by the CMWG according to the single expected outputs.

OUTPUT 1

Consensus on the definition of "sustainability" of aquaculture development in the Mediterranean within the framework of an ecosystem approach to aquaculture is established.

Activity 1 *Testing of the Indicators Reference System at local level as a result of regional cooperation*

This activity should be based also on the preliminary interest created in some Mediterranean areas, implementing additional new pilot case studies in Morocco, Italy, Spain and Greece and or other interested countries. The new case studies should take advantage from the Tunisian and the Turkish experience and be supported by a multidisciplinary cooperation framework.

OUTPUT 2

Relevant documentation on aquaculture sustainability is gathered and regularly updated and proper synergies between other projects related to sustainable development of aquaculture and the Working Group on Aquaculture Sustainability of the GFCM are identified and developed.

Activity 2 *Implement a programme for the dissemination of InDAM results, outputs and documentation*

Translation of the technical documents into local languages will also be considered and activities of dissemination will be carried out also in connection with SIPAM.

OUTPUT 3

The most suitable and workable sets of indicators and reference points guiding the sustainable development of Mediterranean aquaculture are established as a result of regional multidisciplinary cooperation and feedback from stakeholders.

Activity 3 *Preparation of Guidelines on the application of indicators for sustainable aquaculture, according to the methodologies applied and to the agreed schemes*

The Guidelines will also include a Glossary of the terms used for the different indicators. The number of indicators should also be revised for a better and more comprehensive application. Cooperation should be established with FIRI on these issues. For the preparation of these guidelines the CMWG suggested the creation of a team of experts on each dimension of sustainability.

Activity 4 *Test the indicators reference system at local level: follow up of the pilot case studies carried out*

In Tunisia and Turkey the reference system of indicators will be tested with the participation of the different stakeholders already involved in the selection process. The activities to be carried out will serve also to make a first practical evaluation of the selected indicators based on the data available and collected at local level and for the evaluation of the drafted guidelines.

Activity 5 *Preparation of a programme for the implementation and/or the establishment of a Mediterranean Observatory on Sustainable Aquaculture* in order to help countries in the implementation of actions towards sustainability of aquaculture.

31. The CMWG suggested the organisation of an expert meeting to discuss and decide how to address the issue of the minimum set of regional indicators as well as the issue of the implementation of the sustainable indicators at global and local scale within the context of coastal zone management.

32. The CMWG endorsed the workplan as presented above together with the improvement of the InDAM database within the framework of the SIPAM information system.

Workplan of the Working Group on Siting and Carrying Capacity (WGSC)

33. Mr Ioannis Karakassis presented the workplan of the WGSA on the basis of the activities for the second year of SHoCMed that was reviewed by the CMWG according to the single expected outputs.

OUTPUT 1

A preliminary study to design the best strategy to achieve consensus on site selection and establishment of Mediterranean standards for carrying/holding capacity of aquaculture farms has been completed.

Activity 1.1 *Preparation of a review on the experience and knowledge on Allocated Zones for Aquaculture (AZA) activities* and the integration of aquaculture into coastal zone management and guidelines (legal aspects, methodologies, procedures).

Activity 1.2 *Finalization of the review on legal aspects related to site selection and carrying capacity* collected during the first year of activities of SHoCMed. Further attention will be given on gaps in reporting and communication of monitoring programmes and the legal procedures implemented for improving the governance and the participation of the different stakeholders.

OUTPUT 2

Criteria and related guidelines (including standards) for aquaculture site selection in the GFCM region have been produced.

Activity 2.1 *Improvement of the SHoCMed database hosted in the SIPAM website*, by including metadata or published information on the interaction between aquaculture and environment. Attempts will be made to enhance cooperation with national research institutions in order to improve/update data and their utilisation. The CMWG considered that this part should be carried out in close collaboration between WGSA and SIPAM.

Activity 2.2 *Preparation of a Glossary on Site Selection and Carrying Capacity for aquaculture activities*. This glossary should include legal aspects.

OUTPUT 3

Issues regarding carrying capacity of aquaculture sites and carrying capacity standards. are better understood and addressed

Activity 3.1 *Preparation of a technical document with a review of Environmental Quality Standards (EQS) and monitoring in Mediterranean aquaculture* prepared on the basis of the main environmental parameters identified by the WGSC and the main physical parameters (current, depth, distance from the coastline, etc). The EQS should focus on the size and location of the aquaculture activities.

34. The CMWG suggested the organisation of a workshop to gather additional information from experiences on Allocated Zones for Aquaculture (AZA); to discuss and review technical

and legal procedures applied; consider GIS techniques for planning aquaculture activities, and organise a meeting on ESQ.

35. The CMWG endorsed the workplan as presented above together with the improvement of SHoCMed database within the framework of the SIPAM information system.

Workplan of the Working Group on Marketing of Aquaculture Products (WGMA)

36. Mr Ferit presented the workplan of the WGMA. The activities of the MedaquaMarket project have been concluded in December 2009 and the activities of the WGMA will follow up on the priorities identified in its meeting in November 2009. The activities are also presented on the basis of the expected outputs.

OUTPUT 1 The responsible aquaculture practices in the Mediterranean are promoted and disseminated in order to improve dialogue between farmers and society on the image of aquaculture.

Activity 1.1. *Organization of a workshop on Responsible Aquaculture Practices* for Mediterranean based on the more recent and available guidelines and indicators for sustainable aquaculture.

Activity 1.2. *Preparation of a project for improving the image of aquaculture production and products* in Mediterranean including pilot actions, proposals to organize training/workshops on Responsible Aquaculture Practices with the cooperation of national authorities and producers' organizations.

OUTPUT 2. The role of Producers' Organizations in development of sustainable aquaculture in the Mediterranean is promoted and improved.

Activity 2.1 *Preparation of a review of legislation of producer's organization in GFCM member countries* and drafting recommendations for promoting the role of POs including issues related to supply and price stability.

OUTPUT 3 The data market collection scheme for SIPAM is supported and improved

Activity 3.1. *Finalize the market data scheme based on MedAquaMarket template and its integration within SIPAM*

Activity 3.2. *Organization of a joint meeting between WGMA and SIPAM to present and discuss the marketing data scheme and marketing data collection.*

37. The CMWG endorsed the workplan as presented by the coordinator of the WGMA.

Workplan of Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM)

Mr Hadjali outlined the proposals drawn up by the SIPAM meeting in relation to its workplan for 2010. Specifically, the items comprising the workplan were presented as follows:

- ***Update the Production Statistics section according to the new terminology adopted*** during the Workshop on Harmonisation Standards for Mediterranean Aquaculture Data Collection (Trabzon, Turkey, 8 December 2009);
- ***Update the Production Centres section and data-entry form*** according to the agreed parameters and release the “Production Centres - Quick Start Guide for National Coordinators”;
- ***Continue with the development of statistical reporting facilities***, particularly for the production of tables and charts, using data collected within the framework of Recommendation GFCM/2009/33/4;
- ***Finalise the newly established SIPAM web sections*** and related databases on “Marketing”, “Siting and Carrying Capacity” and “Indicators for Sustainable Aquaculture”;
- ***Organise a training session for National Coordinators on the use of SIPAM*** during the next SIPAM session in order to provide direct guidance during the data-entry and data retrieving processes;
- ***Increase the cooperation with FAO for the updating of Mediterranean National Aquaculture Sector Overviews (NASOs)*** and organise a training session on the NASO Google map application for National Coordinators during the next SIPAM session;
- ***Organise the preparation of a Mediterranean regional aquaculture review*** based on the available information and on the established format;
- ***Establishment of an email alert system*** as indicated during the Eleventh Session of SIPAM.

38. The CMWG endorsed the workplan as presented above and noted that, following the SIPAM meeting, work had already been completed with respect to the updating of the “Production Statistics - Quick Start Guide for National Coordinators”, the finalisation of the web facility for the consultation of all the certified data, the establishment of an email alert system on new information in SIPAM, together with the improvement of InDAM, MedAquaMarket, SHoCMed banners in the SIPAM homepage.

39. In relation to the Recommendation 33/2009/4 the CMWG agreed on the inclusion of new data collection parameters on Production Centres, as adopted to the 11th Session of SIPAM.

OTHER GFCM CAQ INITIATIVES

40. Mr Fabio Massa presented the new GFCM-CAQ project on “Lagoon Management and the interaction between aquaculture and capture fisheries”, financed by the Italian Ministry of

Agriculture Food and Forestry Policies, due to start in 2010⁴. This project is the follow up of the request formulated during the Sixth Session of the CAQ and recalled during the 33rd Session of the GFCM, where the issue of lagoon management was addressed.

During the first year of activities the workplan will include:

- definition of standardized formats for the preparation of national reports allowing an inventory of the situation in the Mediterranean and Black Sea countries by a comparative analysis with the historical data, when available; the description and analysis, among others will include: aquaculture and fishing activities in lagoon management; ecological characterisation; description of other activities within and surrounding the lagoons areas; interaction of aquaculture and capture fisheries with the other users; legal and policy framework;
- establishment of an experts network on lagoon management selected among the Mediterranean and Black Sea countries; and production of national reports;
- Organization of regional meetings for discussion and identification of topics to be addressed and formulation of a follow-up.

41. The CMWG welcomed the initiative, acknowledged with enthusiasm the reactivation of the work on lagoon management within the GFCM activities and showing interest in the project, thanked Italy for the opportunity given. The relevance of this initiative for the local community and the interaction of lagoon management with other coastal activities in the Lagoons of Turkey, Greece, Tunisia, Spain, and France was mentioned.

COOPERATION OF THE CAQ AND ITS SUBSIDIARY BODIES WITH OTHER INITIATIVES

42. The activities of the projects AquaMed, Lagoonnet, Prevent escapes, Eurostat-MedStat II, IDAqua and the Fundación OESA project on indicators for sustainability in aquaculture as well as the creation of the The IUCN Ecosystem-based Aquaculture Group under the IUCN Commission on Ecosystem Management, were presented by experts, highlighting those issues that could be relevant to the WGs activities. The CMWG stressed the relevance of the cooperation between the WG and SIPAM and these projects and initiatives.

43. The cooperation also with other CAQ partners, and in particular with the IUCN, was also recalled as well as the cooperation with the Mediterranean FAO Regional Project.

IMPLEMENTATION OF THE CAQ PRELIMINARY WORKPLAN FOR 2010 AND FUNCTIONING OF CAQ SUBSIDIARY BODIES

Budget. The CMWG was recalled that all the activities indicated in the proposed workplan will be carried out proportionally on the basis of budget availability and budget allocation to the CAQ activities and in particular:

⁴ The Lagoon Project is one of the two components of a project “*Strengthening cooperation on fisheries and aquaculture management in the Mediterranean and the Black Sea*”. The second component of the project is “*Fisheries laws and regulations in the Mediterranean and the Black Sea*”.⁴

- the activities of WGSC and those related to the SHoCMed will be funded by EU-DG Mare for an equivalent of 30 percent of the estimated eligible costs, the remaining part will be covered by the GFCM Secretariat and the institutions and partners with the eligible costs assigned to the activities of SHoCMed; the same approach will be followed for the WGSA activities related to the InDAM project, that are also funded by EU-DG Mare for an equivalent contribution of 50 percent of estimated eligible costs;
- the activities of the Project on the Lagoon management will be fully funded by the Italian Government; the technical document should be finalised in April 2010 and the project operative in May 2010;
- with reference to the WGMA, the activities of MedAquaMarket have been concluded in December 2009 and the technical documents produced will be published during 2010 as well as other initiatives initiated during 2009.

The CMWG recalled that Member's research institutions and partners should also ensure scientific contributions to the work and should cooperate with the initiatives of the CAQ.

Meetings Discussion was raised on the organisation of the meetings as proposed by the Subsidiary bodies and endorsed by the CMWG, and it was suggested that:

- some difficulty could be encountered in the organisation of the meeting before July 2010, due to the short time and budget availability linked to the projects (SHoCMed and InDAM) funded by EU. These projects are funded on yearly basis and the activities of the second year could only commence after the technical and administrative closure of the previous ones;
- when possible it would be advisable to concentrate the venues and the organisation of meetings of the different subsidiary bodies to maximize the efficiency of the organisation and take advantage of the different expertise available for advise in the occasion;
- receive duly in advance the information on the venue of the meeting and avoid any possible overlap with the agendas of the experts;
- the next session of the SIPAM should also be attended by the coordinators of the different working groups to consolidate and improve the integration and cooperation between the different subsidiary bodies within a vision of multidisciplinary management of aquaculture activities. This could be also an opportunity to organize the next CMWG before the 7th Session of CAQ.

With reference to the meeting suggested a preliminary list includes:

- WGSC-SHoCMed workshop on Allocated Zones for Aquaculture (AZA) (Sevilla, Spain July 2010);
- WGSA-InDAM- expert meeting Definition of Regional minimum set of the indicators for sustainable aquaculture (Izmir, Turkey September 2010);
- First Workshop on Lagoon Management and interaction between aquaculture and capture fisheries; (TBD, November 2010);

- WGMA – SIPAM joint meeting on marketing data scheme and marketing data collection (Malta November, 2010);
- WGSC – SHoCMed – Meeting on Environmental Quality Standards for marine fish farms (TBD);
- 12th Session of SIPAM (Malta, November 2010),
- CMWG – Fourth meeting (TBD/Malta, November, 2010);

This list does not include the meetings on InDAM local Pilot Studies and meetings organised by the CAQ partners.

44. The CMWG acknowledged the great effort made by the WGs and SIPAM and the significant amount of interesting tangible results and deliverables from the last 2 years of activity. This was also possible thanks to the cooperation established with the different partners participating to the CAQ activities and the efforts made by the experts and the coordinators involved in the activities. Furthermore, it was mentioned that this has also been possible thanks to the additional effort made by the Secretariat and the establishment of the new position for an aquaculture officer who could promote and coordinate activities and projects related to aquaculture leading to the reinforcement and development of the aquaculture related activities and projects within the CAQ.

45. However, some reflections were made by the participants on the present structure of the subsidiary bodies of the CAQ and their TORs. This issue should be reconsidered on the basis of the current progress of the CAQ subsidiary bodies as well as on the emerging issues for the strategic development of Mediterranean aquaculture. The CMWG stressed the lack of a middle layer of subsidiary bodies between the CAQ and the WGs. The difficulty of the organization of the workplan for the CAQ activities on biannual basis is also a limiting factor for countries' involvement and programme continuity.

46. The meeting noted the increasing demand for data information on various aspects of the aquaculture industry and the resulting workload in relation to the management of databases and data submission frameworks and stressed on the need to strengthen the human resources of the GFCM Secretariat

47. An annual meeting of CAQ, organized a few months before the GFCM annual session, could provide the GFCM with new ideas and recommendations on a yearly basis thus ensure continuity to the activities of the CAQ itself.

CONCLUSIONS AND RECOMMENDATIONS OF THE CMWG

48. The third CMWG reviewed, discussed and made a synthesis of the follow-up of the main activities carried out by the Working Groups and SIPAM during 2009 and made also synthesis of the recommendation of the CAQ subsidiary bodies for giving indication to the CAQ on management advice on Mediterranean aquaculture.

49. The CMWG, among others, discussed on the main priority issues related to the aquaculture development in the Mediterranean, such as: the integration of aquaculture into coastal zone management; the harmonisation of legislation on site selection and licensing procedures; the establishment of a sustainable reference system for aquaculture development; the promotion of market oriented production; the implementation of monitoring activities; and the improvement of data collection.

50. With reference to the cooperation, during 2009 the strengthening of technical cooperation with CAQ partners, the research institutions and fisheries administrations of GFCM member's countries, contributed to the achievements of the main results of the CAQ subsidiary bodies. Enhanced cooperation has been established with IUCN on sustainability issues on aquaculture and guidelines. Cooperation with Eurostat has been also established on aquaculture statistical aspects and cooperation has been improved with the FAO's Coordinating Working Party (CWP) on statistics on aquaculture. The main FAO Services within the Fisheries and Aquaculture Department with which cooperation has been strengthened are: FIRA (Fishery Aquaculture Service), FIPS (Fishery Statistics and Information Service) and FIMP (Fishery Product Trade and Marketing Service).

51. In consideration of the discussion made, the recommendations made are hereunder summarised and to be put forward for the consideration of the 34th Session of the Commission.

Approach toward a sustainable development of Mediterranean aquaculture:

- The CMWG stressed that the economically, environmentally and socially sustainable development of marine aquaculture in Mediterranean should be ensured through a normative and participatory approach adopted by the Mediterranean countries. The normative approach is addressed to put forward the sustainable aquaculture towards the marine policy in order to define the governing process for its integration within the context of integrated coastal management and for its harmonisation with the other users. The participatory approach looks forward the establishment of a regional and local consensus based on a common agreed set of indicators that takes into account the four -governance, social, environmental and economic- dimensions of aquaculture sustainability.

The marine aquaculture activities in the Mediterranean should be considered among the regional priorities:

- A regional sustainable reference framework for the development of aquaculture should be established and adopted bearing in mind the regional dimension of marine aquaculture activities in Mediterranean,. This reference framework will assist the GFCM member countries in the process of harmonising strategies for aquaculture management in consideration of the regional emerging issues (global market, environmental issues, transboundary aquatic ecosystem, product safety and product certification);
- In order to support the Mediterranean countries in implementing and following up and monitoring actions towards sustainability of their aquaculture development, a programme for the establishment and implementation of a Mediterranean observatory for the sustainable development of aquaculture should be prepared.

Marketing as priority issue for the sustainable development of aquaculture:

- With reference to the marketing difficulties that marine finfish aquaculture is facing, the CMWG suggested that the Mediterranean countries should support and promote consumer-responsive aquaculture sector by fostering the transition from supply driven aquaculture to market-oriented production, including planning, strengthen risk assessment and crisis management capabilities of the sector as far as markets and marketing aspects are concerned and enhance the role of producers' organizations in regulating supply and price stability.

Monitoring and assessing environmental impact and interaction of aquaculture activities

- i. The CMWG by recalling the conclusions and recommendations made by the CAQ at its Sixth Session (17-19 December 2009), agreed that monitoring the ecological effects of aquaculture on the sediment and water column is necessary to obtain time series to describe changes in environmental quality which in turn affects aquaculture itself.
- ii. The CMWG reiterated that the establishment of specific procedures for monitoring the environment is essential to sustainable aquaculture development.

52. With reference to the site selection and site management for marine aquaculture activities and in consideration of the request made by the sixth Session of CAQ to develop harmonized and mandatory procedures for Environmental Impact Assessment and Environmental Monitoring Programmes, the CMWG reiterated and recommended that:

- For appropriate aquaculture site selection, Environmental Impact Assessment (EIA) procedures and Environmental Monitoring Programmes (EMP) should be incorporated into national legislation and implemented.
- Whilst acknowledging that the circumstances and conditions of aquaculture development are diverse in the Mediterranean region, each country should draw up an appropriate Plan of Action for the implementation EIAs and EMPs. This Plan of Action should define, according to and adapting recognized international standards, the content of the EIA and EMP, the tools and framework (legal as well as processes) for implementation, together with the timeframe..

Reporting of Aquaculture Data and Information

53. During the Thirty-third Session the Commission adopted a Recommendation (GFCM/33/2009/4) for the mandatory submission and annual reporting, through the SIPAM system according to a preliminary set of data. According to the results of the workshop on the "Harmonisation of standards for Mediterranean aquaculture data collection" (Trabzon Turkey, 8 December 2009) and adopted by the SIPAM at its eleventh Session, a series of terms and standards were adopted and harmonized according to the FAO Aquaculture Glossary, the draft of the CWP (Coordinating Working Party on Fishery Statistics) Handbook of Fisheries Statistical Standards

The CAQ-CMWG also presents to the consideration of the Commission:

- The amendment and update of the data collection scheme (Recommendation GFCM/33/2009/04) on the reporting of aquaculture data and information for the Production Centre as adopted by the SIPAM and taking into account the new harmonized terminology
- The provision of data on production centres according to:
 - iii. production segment (hatchery, farms),
 - iv. number of production centres per:
 - segment;
 - cultured species,
 - volume unit; and
 - destination (ongrowing, restocking, ornamental).

ADOPTION OF THE REPORT

54. The report was adopted by the participants.

Appendix A**AGENDA**

Opening of the meeting

Adoption of the agenda and meeting arrangements

Review and follow-up of the main activities and conclusions as carried out by the Working Groups and SIPAM during 2009

Preliminary workplan of the Working Groups and SIPAM for 2010

Other GFCM- CAQ initiatives

Cooperation of the CAQ and its subsidiary bodies and other relevant partners

Implementation of the CAQ preliminary workplan for 2010 and functioning of CAQ Subsidiary bodies

Conclusion and recommendation

Any other matters

Adoption of the report

Appendix B

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Appendix C

List of documents

CAQ/CMWG/2010/1	Provisional Agenda
CAQ/CMWG/2010/2	Provisional list of Documents
CAQ/CMWG/2010/3	Provisional List of Participants
CAQ/CMWG/2010/4	Report of the 11 th Session on Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM) (Trabzon, Turkey, 9-10 December 2009 ⁵)
CAQ/CMWG/2010/5	Report of the multistakeholders workshop on siting and carrying capacity (WGSC- <i>SHoCMed</i>) Tangier, Morocco 29-30 October 2009
CAQ/CMWG/2010/6	Report of the Working Group on Marketing on Aquaculture “Development of a Strategy for Marketing and Promotion of Mediterrenan Aquaculture” – <i>MedAquaMarket</i> Tangier, Morocco 27-28 October 2009
CAQ/CMWG/2010/7	Report of the Working Group on Sustainable Aquaculture “Workshop on Guidelines and Application of Indicators for Sustainable Development of Aquaculture – <i>InDAM</i> (Salambo, Tunisia, 19-20 November 2009)
CAQ/CMWG/2010/8	Preliminary workplan for 2010 (summary of the proposals formulated by the subsidiary bodies of CAQ)
CAQ/CMWG/2010/Inf.1	Report of the Sixth Session of the Committee on Aquaculture (Tirana, Albania 17–19 December 2008)
CAQ/CMWG/2010/Inf.2	Report of the Second Coordinating Meeting of the Working Groups (CMWG) (Rome, Italy 3 September 2008)
CAQ/CMWG/2010/Inf.3	Report of the Thirty-third Session of the General Fisheries Commission for the Mediterranean (GFCM) (Tunis, 23-27 March, 2009)
CAQ/CMWG/2010/Dma.1	Draft document before editing: “Indicators for Sustainable Development of Mediterranean Aquaculture (WGSC – InDAM first year)”
CAQ/CMWG/2010/Dma.2	Draft document before editing: “Synthesis of the Mediterranean Aquaculture and Development of strategy for marketing and promotion of aquaculture (WGMA – MedAquaMarket)
CAQ/CMWG/2010/Dma.3	SHoCMed Project “Developing siting and carrying capacity guidelines for Mediterranean aquaculture within aquaculture appropriate areas” (WGSC SHoCMed first year summing up)

⁵ Report of the Workshop on harmonisation standards for Mediterranean aquaculture data collection (Trabzon, Turkey, 8 December 2009) in Appendix C

- CAQ/CMWG/2010/Dma.4 Review on existing procedures for site selection used across the Mediterranean and evaluation of the affectivity of regulatory schemes (WGSC-SHoCMed first year) (by Rosa Chapela)
- CAQ/CMWG/2010/Dma.5 Emerging Species in Mediterranean Aquaculture: Market for Meagre (*Argyrosomus regius*) - Present Situation and Prospects
- CAQ/CMWG/2010/Dma.6 SIPAM Production Statistics - Quick start guide for national coordinator

Appendix D**List of the meetings of CAQ convened during the 2009 :**

- WGSA - Expert Meeting on “Indicators for the Sustainable Development of Aquaculture in the Mediterranean Sea” (February 2009, Montpellier, France)
- WGSC - Workshop on National legislation on Siting, Monitoring programme and Environmental Impacts, (13-14 July 2009, Vigo, Spain)
- WGSA – Technical meeting of the InDAM Pilot Study in Turkey on Indicators for sustainable aquaculture (28-29 September 2009, Mugla, Turkey)
- WGSA- Technical meeting of the InDAM Pilot Study in Tunisia on Indicators for sustainable aquaculture (13-14 October, 2009, Monastir, Tunisia)
- WGSC- Multistakeholder Workshop on Siting and Carrying Capacity (SHoCMed) (29-30 October 2009, Tangier, Morocco)
- WGMA –MedAquaMarket Workshop on “Development of a strategy for marketing and promotion of Mediterranean Aquaculture” (29-30 October 2009,Tangier, Morocco)
- WGSA - Workshop on Guidelines and application of indicators for sustainable development of aquaculture (InDAM) (19-20 November 2009, Salammbou, Tunisia)
- Workshop on harmonisation of standards for Mediterranean aquaculture data collection” (8 December 2009, Trabzon, Turkey,).
- The Eleventh Session of the Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM), (9-10 December 2009, Trabzon Turkey,);

Appendix E

**MAIN ACTIVITIES, OUTCOMES AND RECOMMENDATIONS OF
THE CAQ SUBSIDIARY BODIES**

Annex A

Working Group on Sustainability on Aquaculture (WGSA)

Within the first year of InDAM project on “*Selection of Indicators for Sustainable Development of Aquaculture and Guideline for their use in the Mediterranean*” in support of the *WGSA*, *the following activities were carried out:*

- A preliminary list of 155 indicators for sustainable aquaculture in the Mediterranean Sea has been selected at regional level by the WGSA corresponding to four (Economic, Environmental, Social and Governance) dimensions of Sustainable Aquaculture.
- Two first pilot studies were developed and implemented at Monastir (Tunisia) and at Mugla (Turkey) for receiving feedback from stakeholders on the basis of the attributes and priorities among the indicators identified by the WGSA at regional level;
- An online data base of relevant bibliography on sustainability on aquaculture and indicators for sustainable aquaculture was implemented. A web portal on the InDAM project activities was prepared (hosted on the SIPAM website).
- A series of documents and technical reviews in support of the InDAM activities were prepared by experts of WGSA, dealing with key issues on the use of indicators for sustainable development of aquaculture and on the governance systems in aquaculture.

The main recommendations made by the WGSA, mainly focused on the implementation of the pilot case studies are summarised as follows:

- The use of indicators for aquaculture should be considered within the sustainable reference system identified (PCI - Principles, Criteria, Indicators), as well as being specified in a multidisciplinary context of aquaculture development;
- *Pilot case studies* are essential to establish a local reference system for the development of aquaculture sustainability and its integration into coastal zone management. The *pilot case studies* are also essential for having a common understanding of the concept of sustainable aquaculture between the different local stakeholders.
- In the *pilot case studies* the multistakeholder participation should remain a priority as well as the bottom-up approach. The work done with the different stakeholders gave different perspectives of aquaculture development. The aquaculture activities have been considered from the farm, the administration and the civil society point of view ;
- Additional pilot case studies should be implemented in other Mediterranean countries for giving contribution to the co-construction of the indicators and their application;
- Common understanding and perception of attributes of the indicators for sustainable aquaculture at local level are required in order to achieve consensus on the identification and prioritization of the same indicators. The preparation of a “*Glossary on Attributes for Selection of Indicators*” would facilitate this process.

- A weighting and scoring table system for the evaluation and contribution of the indicators identified would also help in the management of sustainable aquaculture, and tools like the traffic light approach could be useful in the process of application of aquaculture monitoring activities. This would facilitate the evaluation of sustainability of aquaculture activities at different local scale.
- Helping Mediterranean countries follow and monitor their aquaculture development a regional body such as an observatory of aquaculture sustainability would be of great interest to this purpose.

Annex B***Working Group on Site Selection and Carrying Capacity (WGSC)***

Within the first year of SHoCMed project on “ *Developing siting and carrying capacity guidelines for Mediterranean aquaculture within aquaculture appropriate areas*”, in support of the WGSC, *the following activities were carried out*:

- Execution of preliminary reviews and studies on the aspects related to the interaction of aquaculture and environment and, on site selection procedures;
- Collection and analysis of questionnaires filled by 14 different Mediterranean experts for their respective countries on the legal and administrative national aspects of aquaculture monitoring activities and the main environmental aspects of aquaculture site selection.
- A document titled “Review on existing procedures for site selection used across the Mediterranean and evaluation of the affectivity of regulatory schemes and EIA procedures”;
- Reviews on: aquaculture – environment interactions, scientific evidence and exclusion criteria for site selection; recent research findings; interactions with other uses of the coastal zone (including sensitive habitats and fisheries).
- An on line web search tool was designed to provide a web application with structured documents and metadata from articles and publications on the interaction with aquaculture and environment. There exists a web portal on the SHoCMed project posted on the SIPAM portal.

The main recommendation as made by the WGSC can be summarised as follows:

- Space availability, space allocation and license procedures for farms, still remain the main constrains and issues to be addressed for any further development of Mediterranean sustainable aquaculture;

For space allocation and monitoring, it is particularly recommended that:

- The site selection should be considered for the sustainable marine and coastal aquaculture development, by analyzing the environmental condition, the economic feasibility and the social acceptability.
- The multi disciplinary and multi-stakeholder approach is essential for a better integration of the marine aquaculture into coastal zone management and toward an ecosystem approach for aquaculture management.
- Aquaculture procedures of Environmental Impact Assessment (EIA) should be mandatory for site selection in the Mediterranean. However the EIA is not sufficient and should be completed by a risk analysis as well as a monitoring programme of the environment and of the activities surrounding the aquaculture areas.
- The aquaculture growth potentiality and monitoring should be accompanied by the use of tools such as Geographic Information System (GIS) applications; this will allow zoning and planning approach for decision makers and other interested parties.
- Particular attention should be paid to monitoring the marine aquaculture and capture fisheries for the evaluation of the positive interaction between these activities where the small scale fishery and aquaculture operate in the same areas.

Furthermore those near-shore areas in which traditional extensive aquaculture practices exist, should be censused and valorised by underlining the more evident case studies, highlighting their socio-economic contribution to the local communities and the maintenance of biodiversity.

- Monitoring the physical environment surrounding the aquaculture activities still remains a priority for the evaluation of the effects, interaction and impact of aquaculture on the environment and the aquaculture itself. Close attention should be paid to the monitoring of the sediments rather than the water column. To this extent, the list of variables identified by the WGSC has been confirmed.
- The definition of Environmental Quality Standards for carrying and holding capacity for aquaculture purposes still meet difficulties in having common values for the benthic effects, due to the interaction of many physical variables (current, depth zones, sediment). However, the harmonization of data collection of environmental parameters at Mediterranean level will facilitate the monitoring avoiding that such parameters do not exceed the reference points that will be established for aquaculture environment.
- New aquaculture settlements should be avoided or limited within (or around) sensitive habitat; these installations should be accompanied by a restrict monitoring or mitigation plans.

License procedures and Mediterranean legislation on siting:

The main gaps identified through the analysis of the aquaculture legislative framework in the Mediterranean region can be summarized in the following conclusions and recommendations:

- the survey showed the heterogeneity in the legal framework regulating aquaculture: concepts, definition, competence, right, institutions, etc.; the absence of specific regulations can operate as constraint for aquaculture development;
- the definition of aquaculture legal frameworks does not include a comprehensive concept, which should consider not only the activity itself but include typologies, production systems and other relevant criteria;
- cumbersome institutional settings, which call for simplification of both regulation; and administrative procedures and lack of coordination tools for solving overlapping competence of agencies involved in aquaculture planning;
- The aquaculture planning in some countries is limited to technical studies or recommendations; social and economic studies are not normally included as tools for aquaculture planning; integrated coastal zone management is regional or locally limited; lack of common criteria and standards (monitoring and EIA) should be filled in.
- lack of mechanisms for the participation of stakeholders which ensure proactive input and accountability of the actors involved. An inverse relationship between participatory processes and efficiency in terms of time consumption and resources that need to be solved and registered;
- the implementation of specific regulations for aquaculture is essential to promote and facilitate the aquaculture development itself;
- the regulatory framework should also take into consideration the aquaculture related laws, including land, water and environmental legislation; the legislative framework should also include all the conditions for its practice as well as guarantees of the rights and obligations of aquaculture licenses holders;

- the coordination should be developed among the agencies involved in the aquaculture planning; the creation of simple windows or one stop shops should be promoted to centralize license-granting procedures, thus reducing procedures and for granting of various authorizations;
- the improvement of the governance should be pursued by including aquaculture in the strategic policy; ensuring a proactive participation of stakeholders in the decision making process and stakeholders accountability; the main steps for the inclusion of aquaculture activities in the coastal zone management should be identified;
- take stock of the positive experience within Mediterranean countries on the planning and integration of the marine aquaculture into the coastal zone planning; preparation of detailed guidelines for development and establishment of aquaculture coastal planning procedures;
- Identification of reliable indicators related to the governance dimension of sustainable aquaculture to evaluate the impact of planning aquaculture, including indicators to measure results from policies and plan in the medium and short term.

Annex C

Working Group on Marketing on Aquaculture products (WGMA)

Within the first year of MedAquaMarket project dealing with the: “*Development of a Strategy for Marketing and Promotion of Mediterranean Aquaculture*” in support of the **WGMA**, *the following activities were carried out:*

- A total of fourteen MedAquaMarket Aquaculture National Reports of the Mediterranean Countries were prepared on the basis of a ‘standard national market report’ template prepared by the WGMA.
- A technical document titled “*Regional Synthesis of the Mediterranean Aquaculture Sector & Development of a Strategy for Marketing and Promotion of Mediterranean Aquaculture*” was prepared.
- A report prepared within MedAquaMarket project and titled “*Emerging Species in Mediterranean Aquaculture: the MEAGRE (Argyrosomus regius), Present market situation and prospects*”, was updated and finalised. The report presents an overview of meagre aquaculture production in the Mediterranean Sea and highlights the aquaculture as well as the market opportunities for this species in terms of price and competitiveness.
- The meeting on the “*Development of a strategy for marketing and promotion of Mediterranean Aquaculture*” was organized (29-30 October 2009, in Tangier,). It was attended by 30 Mediterranean experts coming from different institutions, fish farmers, academicians, and administrations. The main problems that the market of finfish marine aquaculture is now facing were discussed and recommendations were made.
- Market Data Scheme for SIPAM Network has been finalised. The system includes four sections, namely on: *Fish market; National Market Data, Demographic data, Other Relevant Data.*

The main recommendation made by the WGMA and as follow up of the “*Synthesis of the Mediterranean Aquaculture and Development of strategy for marketing and promotion of aquaculture (WGMA – MedAquaMarket Project)*” can be summarised as follows:

- Marine aquaculture in the Mediterranean is currently facing a series of constrains that limit its further development on a sustainable which are linked to legal and institutional aspects; production and R&D issues and; market aspects.
- The existing legislation applying to the sector needs to be strengthened. The spatial planning of the coastal zones and the creation of efficient mechanisms to monitor production, distribution and consumption are of critical importance.
- Licence procedures should be facilitated and a legal framework should be established for an integrated aquaculture spatial planning within the context of the integrated coastal zones management;
- Legal framework should set to encourage the establishment of Producers’ Organizations for the aquaculture sector;
- Production diversification should be oriented toward new market segments for aquaculture, e.g. production of large size fishes for the restaurants and processing of fish fillets, for instance;
- Incentives should be granted for Responsible Aquaculture Practices, collective certification schemes as well as promotional activities;

- Educational and professional training should be promoted for fish farmers to promote the use of risk assessment and management tools with regards the disease prevention, cost/financial management, and production planning;
- R&D activities should be industry oriented. The management of the public sector R&D funds should be improved, including a better coordination of the R&D activities for applied research, R&D should be encouraged to better feed management and monitoring systems, zoo sanitary monitoring network should be established;
- The absence of a sector marketing strategy has been criticized. Price stability, exploitation of emerging niche market, public image of the sector and the aquaculture products should be improved;
- Structured and continuous promotion and marketing communication strategy to select target groups for increasing the domestic consumption should be encouraged;
- Introduction of certification and labelling systems; introduction and enforcement of traceability systems. Encourage harmonisation of traceability systems (i.e. species and country origin);
- Common minimum standard in the GFCM region should be adopted with the aim of informing the consumers and for guaranteeing the aquaculture production;
- Introduce certification and labelling systems and procedures to improve the competition,
- Better exploitation of existing and emerging markets and encourage the development of added value and processed products;
- Establish a permanent data collection system and dissemination on consumption, distribution channels, market trends and trade information of aquaculture products;
- Consumer's awareness on attributes of aquaculture products should be promoted to improve consumption and image of farmed products.

Annex D

Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM).

As follow up of the 10th Session of the SIPAM meeting, and the Recommendation (GFCM/33/2009/4) for the mandatory submission of data and annual reporting, ***the following activities were carried out:***

- the SIPAM IS (Information System) portal (www.faosipam.org) was further developed. The Production Statistics and Production Centre data entry component of the SIPAM IS portal was improved and updated to enable the implementation of Recommendation GFCM/33/2009/4;
- The functionality of the Production Centre was improved, in particular for the data entry and the certification processes. However the system has not been finalised and made public since the specification of parameters for the Production Centre was not included in the Recommendation GFCM/33/2009/4.
- The Operational User Guide of SIPAM (quick start guide) has been conceived and finalised to help the National Coordinators to comply with the Recommendation GFCM/2009/33/4
- technical improvements were made to all the related on-line report generation logics, by tailoring the outputs, in order to keep a neat distinction between the data communicated by the NC up to 2007 and those that shall be submitted from 2008 onwards.
- New sections on marketing, on siting and carrying capacity and indicators for sustainable aquaculture were added to the SIPAM IS, in support to the activities of WGSA, WGMA and WGSC;
- Thirteen members countries have been registered in SIPAM with the National Coordinator user rights granted by the Secretariat itself (Albania, Algeria, Croatia, Cyprus, Egypt, Italy, Lebanon, Malta, Montenegro, Morocco, Slovenia, Spain and Turkey). Eleven countries have submitted (or are underway to submit) data for 2008 in compliance with the Recommendation GFCM/33/2009/04 (Albania, Algeria, Croatia, Cyprus, Egypt, Italy, Malta, Montenegro, Morocco, Spain and Turkey).
- The handing-over process from the SIPAM Regional Centre in Tunisia (RCT) to the GFCM Secretariat for the aspects related to Information System was finalised in January 2009. In addition the Tunisian Government, after an additional request made by the Secretariat, kindly extended its support to run the SIPAM Regional Centre up to April 2010. However the SIPAM RCT still remains the reference point for the data and exchange of information on Mediterranean Aquaculture for many countries.
- During the 11th Session of SIPAM, the different terms utilised into the SIPAM system were harmonised considering the FAO Aquaculture Glossary, the draft of the CWP (Coordinating Working Party on Fishery Statistics) Handbook of Fisheries Statistical Standards as well as the FAO/ASFIS list of species as reference sources (as reported in the Table 1).

Hereunder are summarised the recommendations made during the 11th Session of SIPAM:

- Additional formal effort should be made to finalize the registration of all the SIPAM National Coordinator and ensure the data submission to the GFCM through the SIPAM system;

- establish contact with Eurostat MEDSTAT II Project, (the regional statistical co-operation programme among the Mediterranean countries), in order to optimise the effort on harmonisation of data collection on aquaculture;
- amend and update the data collection scheme (Recommendation GFCM/33/2009/04) on the reporting of aquaculture data and information for the Production Centres and with the new harmonized terminology adopted by SIPAM;
- request the countries to fill all the gaps in the SIPAM database (from 2003 to 2008) through their National Coordinators;
- enhance the role of SIPAM in promoting the development of a sustainable aquaculture in the Mediterranean region and develop a strategy to improve the visibility and functionality of SIPAM.

Table 1 - Aquaculture terminology adopted

Aquaculture	<p><i>Aquaculture is the farming of aquatic organisms⁶. Farming implies some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated</i></p> <p>For statistical purpose, aquaculture production is defined as <i>an increment of biomass and/or an increment in numbers of individual organisms produced during the period of farming. Therefore, in order to measure aquatic production, both input to, and output from, the farming environment are needed to monitor. Seed going into a culture-based fishery is considered as an output from aquaculture to fishery, while seed collected by fishery for aquaculture is considered an input from fishery to aquaculture</i></p>
Environment	The three categories of Freshwater, Brackishwater and Marine will remain.
Freshwater Culture	<i>By freshwater culture is understood the cultivation of aquatic organisms where the end product is raised in freshwater, such as ponds, reservoirs, rivers, lakes, canals etc., in which the salinity does not normally exceed 0.5‰. Earlier stages of the life cycle of these aquatic organisms may be spent in brackish or marine waters</i>
Brackishwater Culture	<i>By brackishwater culture is understood the cultivation of aquatic organisms where the end product is raised in waters of fluctuating salinity in a range between 0.5‰ and full strength seawater. Culture utilizing relatively high salinity water originated from inland water bodies should be considered as brackishwater culture. If these conditions do not exist or have no effect on cultural practices, production should be recorded under either "Freshwater culture" or "Mariculture". Earlier stages of the life cycle of these aquatic organisms may be spent in fresh or marine waters.</i>
Mariculture	<i>By mariculture is understood that the cultivation of the end product takes place in seawater, such as fjords, inshore and open waters and inland seas where salinity is generally high and is not subject to significant daily or seasonal variations. Earlier stages in the life cycle of these aquatic organisms may be spent in brackishwater or freshwater.</i>
Cultured Species	The already existing species list in SIPAM IS will be replaced with the "ASFIS List of Species for Fishery Statistics Purposes", available through the FAO Fisheries website, which must be considered as official source.
System of culture/Method of Culture	The terms System of culture will be replaced with the term Method of culture which seems to be more appropriate. The term <i>Integrated culture</i> will be removed from the list and post this kind of information in the notes box at disposal in the data-entry form. The terms used by CWP were adopted:
Extensive culture	<i>the cultured stock obtains all the nutrition required from the natural food produced in the containment where it is reared and/or through the water supplied to the containment,</i>
Semi-intensive culture	<i>the cultured stock is provided a part of nutrition required externally, mostly through supplementary feeding, the culture where only the chemical to enhance production including fertilizers and pesticides are provided is considered as "Extensive culture",</i>
Intensive culture	<i>all the nutrition that the culture stock requires is provided externally</i>
Type of culture/Farming structure	<i>The term Type of culture will be replaced with Farming structure. Lagoon areas item is added to the existing category of "dam/reservoir/barrage". It was noted that the existing SIPAM categorization is consistent with those proposed by CWP and the existing list was adopted, with the understanding that the definition by CWP would be applied.</i>
Type of product	The term " Product for consumption (Ongrowing) " will be replaced with " Food (for human consumption) ". Actual classification: Product for consumption (Ongrowing), fry and fingerlings, eggs, ornamental and derived product.

⁶ Currently, aquatic organisms referred to fish, molluscs, crustaceans, other invertebrate, crocodiles, alligators, turtles, amphibians and aquatic plants.