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	منظمة الأغذي والزراعة للأمم المتحدة	联合粮食农业	 Food and Agriculture Organization of the United Nations	Organisation des Nations Unies pour l'alimentation et l'agriculture	Organización de las Naciones Unidas para la Agricultura y la Alimentación

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMITTEE ON AQUACULTURE

Fourth Session

Alexandria, Egypt, 7-9 June 2004

ACTIVITIES OF THE COMMITTEE ON AQUACULTURE IN THE INTERSESSIONAL PERIOD 2002-2004

FOLLOW-UP ON THE REGIONAL AQUACULTURE PROJECT PROPOSAL

1. A 3-year regional project idea covering the Mediterranean and Black Sea member countries of the General Fisheries Commission for the Mediterranean (GFCM) was presented during the Second Session of the Committee on Aquaculture (CAQ) held in Rome, Italy, from 13 to 16 June 2000. Although endorsed by the Committee the ambitious and yet general regional project presented was not developed further as funding was not identified whether through an interested donor or through the GFCM. During the Third Session of CAQ it was therefore agreed that the Secretariat would prepare a revised profile of the proposed project prioritizing short and medium term activities to better target major issues of regional concern for circulation among the CAQ members for comments.

2. The Secretariat prepared the revised project proposal emphasizing in this respect, as recommended during the last CAQ Session, the new EC Strategy for Sustainable Aquaculture Development, but at the same time aiming at focusing attention on certain aspects of sustainable aquaculture development of regional importance. The draft text of the project proposal is provided as an information session document (see GFCM:CAQ/IV/2004/Inf.8).

3. The immediate objectives of the project are to: (a) examine the interface between bluefin tuna fisheries and bluefin tuna farming with a view to improving the technologies for stock management and control, and enhancing the accuracy of the capture fisheries and aquaculture production statistics; (b) review existing aquaculture certification and eco-labelling schemes operating, suggest methods of harmonization, and promote their use on a regional basis; (c) establish indicators of sustainability for the aquaculture production systems of the region; (d) study the marketing strategies for certain aquaculture products in the Mediterranean and make recommendations for regional structuring; (e) review the existence and application of organic

April 2004

labels in the Mediterranean and propose regionally binding organic aquaculture regulations, to enhance consumer understanding and acceptance; and (f) promote the use of codes of conduct and practice in the Mediterranean.

4. Two phases are defined for the regional project. The first phase would consists primarily of information gathering through regional and national studies, and the definition of recommendations in regional workshops for the work of the second phase. The second phase would comprise specific actions designed to address each of the topics identified above.

5. In order to finalize this regional project proposal and to effectively enable the Secretariat to submit the document to potential donor agencies and countries, as recommended by the Third Session of CAQ, the Committee is invited to have the draft project document viewed by their competent authorities and return any comments and/or suggestions to the Secretariat within one month following the completing of the present Session of CAQ. This procedure will enable the Secretariat to finalize the project document after it has been carefully viewed by the GFCM member countries.

MAIN ACTIVITIES OF THE SIPAM NETWORK

Meetings

6. The Information System for the Promotion of Aquaculture in the Mediterranean (SIPAM) network has been fully operating during the intersessional period and working through the Regional Centre located in Tunis, Tunisia. The Seventh SIPAM Annual Meeting was held from 19 to 20 September 2003 in Casablanca, Morocco, to discuss the status of the network, present the new release of SIPAM-on-the-Web and deliberate on ways to further simplify the collection of data and information at the national level. This meeting was attended by 14 SIPAM National Coordinators, the fisheries advisor fom the Spanish Embassy in Morocco, staff of the SIPAM Regional Centre and two officers of the GFCM Secretariat. The full report of the meeting is provided as an information document (see GFCM:CAQ/IV/2004/Inf.10).

7. In order to ensure the active participation of Greece in the SIPAM network a meeting was arranged in Athens (January 2003) between the General Directorate for Fisheries and the SIPAM Regional Coordinator with the aim of relocating the Greek SIPAM National Centre from the Institute of Marine Biology of Crete (IMBC) to the General Directorate for Fisheries in Athens. The Greek authority confirmed the relocation and nominated the new National Coordinator.

8. As a result of a recommendations of the Seventh SIPAM Annual Meeting to strengthen the interaction of SIPAM with the FAO Global Fisheries Information System (FIGIS) and other information systems an ad hoc working meeting was organized in Rome, Italy (May 2003), attended by the SIPAM Regional Coordinator, to discuss practical ways to further link the two systems. The technical report on the SIPAM databases structure, prepared by an external consultant funded by the FAO Fisheries Department, was discussed to enable smooth interaction between the two information systems.

9. The SIPAM Regional Coordinator attended the ad Meeting of Experts on the External Evaluation of the CAQ and its Networks which was held in Rome, Italy from 29 to 30 March 2004. The external evaluation of SIPAM was first proposed at the Third Session of the Committee and subsequently the recommendation was endorsed by the Commission at its Twenty-seventh Session. During the Twenty-eigth Session of the Commission, the Secretariat was additionally requested to consider undertaking a full external evaluation of the whole activities of CAQ in addition to SIPAM. The external evaluation of CAQ and its Networks will be discussed as a separate agenda item (see GFCM:CAQ/IV/2004/4). The report of the external evaluation meeting along with the full report of the external consultant is provided as an information document (see GFCM:CAQ/IV/2004/Inf.12).

SIPAM National Coordinators

10. The importance of the work carried out by the SIPAM National Coordinators has been repeatedly stressed and it is highlighted in the CAQ External Evaluation report mentioned in Point 9. During the intersessional period new SIPAM National Coordinators for Greece (see Point 7) and Spain have been nominated. In the specific case of Spain the SIPAM National Centre was moved from the Spanish Institute of Oceanography (IOE) to the General Directorate of Fisheries in Madrid. The nominated national coordinator has resumed the collection and submission of national aquaculture data to the Regional Centre.

SIPAM Portal

11. The second release of the SIPAM website (www.faosipam.org) was presented during the Seventh SIPAM Annual Meeting (Casablanca, Morocco, 19-20 September 2003). The new release was developed as a user friendly website with functional tools for rapid data and information input. The services of a web design company were contracted by the FAO Fisheries Department in June 2003.

12. The current powerful and dynamic SIPAM website now allows end users to interact directly with the system. SIPAM users have the possibility to add information such as news items, suggest new links and submit photos, publications and reports which are of direct interest and relevance to the aquaculture sector in the region. These inputs can easily be placed online by completing simple electronic submission form that will be automatically sent to the SIPAM administrators for validation and eventual inclusion in the web site. Furthermore, the SIPAM databases query tools have been improved. For example, in the species production database, the query links the end users directly to the FIGIS species fact sheets and data can be easily exported.

Training

13. An ad hoc SIPAM training course was organized in Rome, Italy, from 23 to 27 February 2004 for the SIPAM Regional Centre Programmer with special emphasis on the SIPAM portal structure and maintenance. The training was financed by the FAO Fisheries Department and delivered by the Italian firm (Winapply) originally contracted for the design of the latest SIPAM website. Following this training the SIPAM Programmer is now in a position to adequately manage and up-date the website HTML pages. Furthermore a SIPAM website User Manual has been prepared and completed.

SIPAM Regional Centre

14. The Regional Centre has continued to cover its main tasks which consisted mainly in collating and verifying the national data submitted from the SIPAM member countries, in the compilation of the regional aggregated databases and downloading onto the website. Furthermore the Regional Centre has provided technical support in the operation of the system to all National Centres linked to SIPAM.

15. Currently the total number of records available in the SIPAM regional database exceed 10,360 which are stored in eight distinguished databases, e.i. national reports, production statistics, four directories on experts, institutions, production centres and suppliers, research/development programmes and bibliography. More than 10,000 records have been validated and downloaded onto the SIPAM website.

16. At present 17 the following countries are linked to SIPAM: Albania, Croatia, Cyprus, Egypt, France, Greece, Italy, Lebanon, Libya, Malta, Morocco, Portugal, Romania, Spain, Tunisia and Turkey. The national contribution towards the enrichment of the SIPAM databases has not been homogenous in terms of data submission. The level of efficiency currently depends almost entirely on the personal commitment of each National Coordinator. Efforts have continuously been made to encourage all National Coordinators to timely provide the data and information

required by the system. In the absence of a full commitment by the GFCM member countries involved this has often been unsuccessful.

SIPAM External Evaluation

17. Following the recommendation made at the Third Session of the Committee subsequently endorsed at the Twenty-seventh Session of the Commission, an external evaluation of the SIPAM network was conducted by an independent consultant from December 2003 and January 2004. The work was conducted through an examination of relevant documents and the new SIPAM website in Rome, supported by interviews with SIPAM staff in the Regional Centre in Tunis, FAO staff from the GFCM Secretariat, the SIPAM National Coordinators of Cyprus, Greece, Italy, Tunisia and Turkey, and selected representatives from the private sector. The consultant provided a final report with a comprehensive documentation related to the SIPAM history, highlighting the strengths and weaknesses of the information system. The report of the external evaluation is provided as an information document (see GFCM:CAQ/IV/2004/Inf.12).

MAIN ACTIVITIES OF THE TECAM AND SELAM NETWORKS UNDER THE COORDINATION OF CIHEAM

18. During the intersessional period, four international courses and seminars have been organized and implemented by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) through the Mediterranean Agronomic Institute of Zaragoza (IAMZ) with the funding support of FAO Fisheries Department and collaboration of several national institutions. A fifth activity on offshore mariculture scheduled from 17 to 22 May 2004 was under preparation when preparing this document. All the activities implemented and under preparation during this period by the CIHEAM-IAMZ are listed below. All implemented activities were proposed in the last TECAM and SELAM Coordination Committee Meeting (Zaragoza, Spain, February 2002) and aimed at contributing to aquaculture development according to the interest of the GFCM member countries. The selection of the activities took into account the proposals made at the Consultation on the Application of Article 9 of FAO Code of Conduct for Responsible Fisheries (CCRF) in the Mediterranean Region (Rome, Italy, July 1999).

19. The total number of participants attending the various activities amounted to 192 (guest lectures not included). Furthermore, it is expected that the offshore mariculture course will attract an additional 30-35 participants from the region. The majority of the participants were nationals of the various Mediterranean and Black Sea countries, however, participants also attended from Austria, Ireland, Germany, Jordan, Norway, Mexico, Portugal, Taiwan (Province of China) and the United Kingdom. Regarding the participant's profile, the activities have aimed at attracting aquaculture experts from the industry, research institutes, universities and relevant public administrations, in order to favour the exchange of experiences.

20. The networks have offered, and will continue to do so, activities to professionals from the Mediterranean region where there is lack of training opportunities and expertise in aquaculture. In the selection of candidates for any given activity, and especially for training courses, emphasis has been given to ensure participation from Southern Mediterranean and Eastern countries. This included financial support to cover all or part of the expenses such as travel, registration fees, accommodation and food. All training courses, apart from their scientific content, have provided an excellent opportunity for interactions between participants and guest lectures with the expectation of future collaboration. Furthermore, the interest of the private sector to attend the various activities offered has increased.

Courses and Seminars

TECAM course on Advances in Fish Reproduction and Application on Broodstock Management

(Zaragoza and Castellon, Spain, 3-7 February 2003)

21. The course was jointly organized by the CIHEAM-IAMZ and the Consejo Superior de Investigaciones Científicas (CSIC), through the Instituto de Acuicultura de Torre de la Sal (IATS). The objective of the course was to provide professionals with an updated vision of the scientific bases and of the progress made in fish reproduction and to demonstrate its practical application to broodstock management. The programme revised the most recent advances in fish reproduction, including control of sex, puberty and reproductive cycle and the effects of captivity and nutrition of broodstock on egg and larvae quality. The applied part of the programme included broodstock handling and gonad development assessment as well as spawning induction, artificial fertilisation, egg and sperm quality analysis and induction of triploidy and gynogenesis. A total of 35 experts from 11 Mediterranean countries and from Mexico, Portugal and Taiwan (Province of China) from research institutions, universities, and private firms attended the course.

TECAM Seminar on the Use of Veterinary Drugs and Vaccines in Mediterranean Aquaculture

(Izmir, Turkey, 21-23 May 2003)

22. The seminar was organised in collaboration with the FAO Fisheries Department, the Turkish Ministry of Agriculture and Rural Affairs (MARA) and the Turkish Fisheries Foundation. In addition a 1-day workshop for local fish producers on Fish Farming and Health Management was organised (May 24) at the premises of the Marine Science Research Center. The objective of the seminar was to provide an updated review on the application and use of veterinary drugs and vaccines for aquaculture with a view to sustainable and responsible development, and to update the latest scientific knowledge on vaccine and veterinary drug developments. The seminar was attended by 92 experts from 12 Mediterranean countries and from Ireland, Jordan, Norway, Portugal and the United Kingdom working at research laboratories, universities, administration, and companies. The proceedings will be published in the CIHEAM's journal *Options Méditerrannéenes*.

TECAM Advanced Course on Recirculation Systems and their Application in Aquaculture

(Sète, France, 12-16 January 2004)

23. The course was jointly organized with the French Research Institute for the Exploitation of the Sea (IFREMER) and the FAO Fisheries Department and took place at the Research Station of Sète. The course was also financially supported by the Administrative Region of Languedoc-Rousillon. The objectives of the course were to review the basis of Recirculating Aquaculture Systems (RAS) and examine the different systems, designs, operations and application of RAS, with special emphasis on Mediterranean aquaculture. The course offered two technical visits to fish farms using such systems. The course was attended by 42 experts from 10 Mediterranean and Black Sea countries and from Germany and Portugal from private firms, research institutions, universities, and administration.

Advanced Course on Marketing of Seafood Products: Trends and Challenges

(Zaragoza, Spain, 16-20 February 2004)

24. This course was organized within the framework of the training activities organized by CIHEAM in collaboration with the FAO Fisheries Department in the field of fisheries and aquaculture pursuing the objectives identified by the GFCM. The main aim of the course was to provide participants with an integrated contemporary vision of the critical factors shaping seafood markets, with special emphasis on the Mediterranean region and on the lessons to be learnt from elsewhere in Europe and the rest of the world. The course was attended by 23 experts from 9

Mediterranean countries and from Austria working at national administrations, research institutions, universities, and companies.

TECAM Advanced Seminar on Offshore Mariculture

(Zaragoza, Spain, 17-22 May 2004)

25. This activity was under preparation when the present document was printed. The seminar will be organized under the sponsorship of the Spanish Agency for International Cooperation (AECI), through the NAUTA Programme (an AECI Programme for aquaculture and marine environment in northern Africa) and by CIHEAM through the IAMZ. The objective of this seminar will be to provide participants with the most recent information available on offshore mariculture, including site assessment and the technical, economic and environmental aspects of these systems. The seminar is expected to count on the participation of 30-35 experts from 10-12 Mediterranean countries.

Technical Survey

TECAM Survey on Mediterranean Aquaculture Diagnostic Laboratories

26. The survey was carried out by CIHEAM-IAMZ and FAO Fisheries Department, and aims to acquire greater knowledge about the Mediterranean laboratories working on diagnosis of diseases of fish and shellfish. A directory of Mediterranean laboratories has been completed and will be published in a special volume of the CIHEAM journal *Options Mediterranéennes*, and will be linked to the SIPAM website. The publication will also include a reference report on existing diseases and pathogens and their incidence and distribution in Mediterranean aquaculture.

GFCM/ICCAT AH HOC WORKING GROUP ON SUSTAINABLE BLUEFIN TUNA FARMING

27. The General Fisheries Commission for the Mediterranean and International Commission for the Conservation of Atlantic Tunas (GFCM/ICCAT) Ad Hoc Working Group on Sustainable Bluefin Tuna Farming in the Mediterranean (WG) was set-up following a 2002 decision by GFCM which, in view of the recent expansion of tuna farming in the Mediterranean, decided that it needed practical guidelines to ensure the sustainability of this activity.

28. A Coordinating Committee was created to facilitate the work of the WG which met at the end of January 2003 to set-up a proposed work plan for the WG to consider, as agreed during the Twenty-seventh Session of the Commission. Part of the plan included a draft survey outline to determine the current situation of bluefin tuna farming practices in the Mediterranean. The first meeting of the WG was held in Rome, Italy, from 12 to 14 May 2003 and was attended by 21 experts from 8 GFCM Members and representatives from the GFCM Secretariat and from ICCAT. The WG members, selected from both the public and private sector, expressed their views based on their personal capacities in a multi disciplinary group.

29. During this first meeting the WG agreed that efforts should be concentrated on producing pratical guidelines that were more technical than legal in nature and in order to do so it concluded that the WG needed to (a) summarize the current situation of bluefin tuna farming in the Mediterranean, (b) identify problem areas with respect to the issues to be addressed, and (c) propose solutions. The main output of the first meeting was an agreed annotated survey form that would enable all GFCM Members engaged in bluefin tuna fisheries and aquaculture to collect the required information.

30. The WG discussed at length its future workplan. It was agreed that the WG's final product (guidelines) should be finalized in 2004. With this target in mind, it was discussed whether it would be useful to hold a large workshop during the intervening period and, if so, what

were its goals, who would participate in it, and what would be the necessary logistical arrangements. In the end, the WG decided that instead of holding a large and potentially expensive workshop, it would be more cost-effective to have two additional meetings of the WG with the possibility of enlarging it by inviting experts in various fields.

31. The second meeting of the WG was organized in Izmir, Turkey, from 15 to 17 December 2003 following the official invitation from the Turkish Ministry of Agriculture and Rural Affairs (MARA). The main objectives of this meeting was to finalize the snapshot on the current situation of bluefin tuna farming and to make good progress on the drafting of the guidelines.

32. The WG participants reviewed the summary of the national survey reports which had been submitted prior to the meeting. The summary snapshot consisted in three documents covering capture fisheries, farming and marketing/trade of bluefin tuna in the Mediterranean. The WG recognized that the reports received focused largely on the aquaculture component, hence it was difficult to form a comprehensive picture of the flow of bluefin from the capture side, to the farms and to the markets. Furthermore the WG expressed its concern for the fact that, no reports were received from countries where either bluefin tuna farming, or catching of bluefin tuna destined for farming, is taking place. This situation makes it difficult for the WG to fulfil its mandate.

33. The WG was subdivided into smaller groups that developed ideas around the issues identified in the WG's mandate (statistical, environmental and biological, and management issues) including the listing of potential solutions or potential research. These issues were then discussed and altered during plenary sessions and would serve as the primary source for the WG's guidelines. The full report of this second meeting is available as an information document (see GFCM:CAQ/IV/2004/Inf.9).

34. The WG agreed that the final guidelines should be drafted and adopted during the third meeting, and that the mandate of the WG would then be completed. In terms of venue, it was noted that, at the last Commission Session, Italy reiterated its offer to host and finance this last meeting. The WG agreed that the meeting would last for 3 days and asked that the GFCM Secretariat arranges for the dates in consultation with the Italian Government and with ICCAT. The Secretariat has suggested that this meeting could be held during the second half of September 2004.

ADRIAMED EXPERT CONSULTATION

35. The meeting on "Interactions between Capture Fisheries and Aquaculture", first announced at the Twenty-sixth Session of the Commission, was organized in Rome, Italy from 5 to 7 November 2003 as an Expert Consultation by the FAO ADRIAMED Project (Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea) and hosted by the Italian Ministry of Agriculture and Forestry Policies, Directorate General for Fisheries and Aquaculture. The Consultation was attended by 21 experts from the ADRIAMED participating countries, Albania, Croatia, Italy, Serbia-Montenegro and Slovenia.

36. The aims of the Consultation were to achieve a comprehensive description and analysis of the aquaculture sector in the countries which border the Adriatic Sea and to acquire the tools to improve the knowledge on the interactions between aquaculture and capture fisheries using the existing knowledge at Adriatic basin level. The full report of this meeting is available as an information document (see GFCM:CAQ/IV/2004/Inf.11).

37. The National contributions provided the Consultation with background information on the aquaculture sector in the Adriatic countries and supplied the necessary basic data set for the discussion. A comprehensive framework on aquaculture in the Adriatic countries and its

interaction with capture fisheries was defined as a result of the information from the countries and from further presentations on specific themes provided by the regional experts.

38. The Consultation defined a matrix to synthesize the interactions between capture fisheries and aquaculture. The identification of some indicators using a systemic approach (ecology, economy, governance and legal framework) helped in the analysis. Finally the consultation provided a series of recommendations related to the interactions between capture fisheries and aquaculture in the AdriaMed countries/area.

WORKSHOP ON BIO-INDICATORS FOR SUSTAINABLE AQUACULTURE

39. At the Twenty-Seventh Session of the Commission France and Italy confirmed that the first and second Workshops on Bio-Indicators for Sustainable Aquaculture would be hosted and funded by their Governments, respectively.

40. The concept of sustainability is today taken into account by most of the public bodies involved in living resources exploitation, at the national and international levels. The identification of bio-indicators to evaluate the sustainability of agro-industry productions, which is still a research field, has to be completed using other indicators in the fields of socio-economy and ethical acceptability. An interdisciplinary working group was created in France to identify the most relevant of them, from an operational point of view. The definition of bio-indicators to evaluate the sustainability of aquaculture production systems and products will be the first outcome of this working group in the coming months.

41. A 1-day session devoted to the sustainable development of aquaculture will take place during the next Bordeaux Aquaculture international meeting in September 2004 (France). The two key issues to be adressed are (1) how to define and characterise the sustainability of aquaculture and (2) how to put into practice a sustainable aquaculture. This session will establish the basis for the organisation of efficient workshops on bio-indicators for a sustainable Mediterranean aquaculture. The first workshop will likely be organized in 2005.

EXTERNAL EVALUATION OF THE COMMITTEE ON AQUACULTURE

42. As mentioned above (Points 9 and 17) the Twenty-eigth Session of the Commission requested the Secretariat to consider undertaking a full external evaluation of the whole activities of CAQ in addition to SIPAM. The external evaluation of CAQ and its Networks was supported by the FAO Fisheries Department with the recruitment of an independent consultant. The evaluation was carried out in two separate phases. The initial part focused on the evaluation of SIPAM and the second covered the overall CAQ through a desk study of relevant documents and discussion with the GFCM Secretariat.

43. An ad hoc Meeting of Experts on the External Evaluation of the GFCM-CAQ and its Networks was held in Rome, Italy, from 29 to 30 March 2004. The meeting was attended by six experts in their personal capacity and officers from the Secretariat. The summary of the recommendations made by the experts are presented in the document GFCM:CAQ/IV/2004/4. The report of the meeting which includes the full report of the external consultant is provided as an information document (see GFCM:CAQ/IV/2004/Inf.12).

SUGGESTED ACTIONS BY THE COMMITTEE

44. The Committee is invited to discuss the programme of work carried out in the intersessional period 2002-2004 by the Networks linked to the Committee on Aquaculture.