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Fisheries Management in the Mediterranean Sea: from GFCM Recommendations to its application. The Spanish case.

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ABSTRACT

Fisheries management in the Mediterranean Sea has been related with national measures during many decades. Actually, the fisheries management system in the Mediterranean countries is based on the individual management of each coastal state and the GFCM (General Fisheries Council for the Mediterranean) recommendations and its applications at a national level. In addition, countries could implement more restrictive laws in order to preserve fisheries resources within the economic zones and wherever their national fleet are fishing.

As an example, a review of the GFCM recommendations during the last years (from 1990 onwards) and its application to the Spanish legislation during this period is presented. The capability of such a system is analysed together with its inconveniences. The analysis shows that in general, Spain accomplishes adequately the GFCM recommendations, either because they were previously incorporated in the national legislation measures or because, as a member of the ICCAT, the recommendations of the Commission were implemented before they were accepted by the GFCM.

The Spanish situation possibly cannot be generalised to the different members of the GFCM, as can be inferred from the reiteration of some recommendations and the creation of the FAO-COPEMED Project financed by Spain. Its objective is to facilitate the accomplishment of the tasks and recommendations of the GFCM to the Western Mediterranean countries. . The incorporation of new GFCM members (Japan and the European Union) and the actual transformation of the Council could change the scope in the near future.

INTRODUCTION

This document merely intends to be an initial exercise on the implementation of the GFCM recommendations and resolutions on a member state, Spain. Nevertheless, this document is not a rigorous revision of the GFCM recommendations neither of its Fishing Policy Legislation. It neither pretends to interpret the fishing management measures from a legal viewpoint or doubt of the capacity the GFCM to promote among its member countries a common fishing policy, and much less doubt of the capacity of the Spanish Administration to apply legislation measures originating from the agreements of International Commissions of

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which it is a member state. The intention of this document is to revise the possible influence of the GFCM on its Member States and the advances or delays in the application of its recommendations in the Spanish fishing measures.

THE GENERAL FISHERIES COUNCIL FOR THE MEDITERRANEAN (G.F.C.M) RULES OF PROCEDURE: According the Basic Texts of the *General Fisheries Council for the Mediterranean: Agreement and rules of procedure* (Anon., 1963)², the Contracting States that are mutually interested in the encouragement of an adequate exploitation of the living marine resources of the Mediterranean, the Black Sea and its communicating water masses promoted the international co-operation by founding the General Fisheries Council for the Mediterranean in an extraordinary session of the FAO in May 22, 1963, and it has its main office at the FAO headquarters in Rome. The celebration of this Fourth ESSFIN Workshop in the southern waters of the European Union coincides with 35th Anniversary of the GFCM foundation.

The functions of this supra-national entity and its responsibilities are estipulated in Article III of the Agreement and Rules of the Council. In summary, it encourages the development, the conservation and the rational management of the living marine resources. To accomplish this principal objective, the GFCM has the following functions and responsibilities:

- < Examine the state of the resources.
- < Formulate and recommend measures for the conservation and the rational management of the living marine resources, including the fishing gear regulations, the minimum fishing size, the application of closed fishing seasons and the catch regulation and distribution among its Member States.
- < Put into practice the recommended measures..
- < Consider the socio-economic aspects of the fishing industry.
- < Promote, recommend, co-ordinate and formulate initiatives towards formation, investigation and development.
- < Publish and disseminate information on the living marine resources and its fisheries.

Thus, the role of the GFCM is clearly defined as an organization responsible for the management of the resources by the formulation of measures and recommendations, as well as, the application of such measures. From this standpoint, it seemed that the capacity of the GFCM to formulate management fishing measures would produce substantial changes in the joint regulation of the Mediterranean fisheries, because these measures should be adopted by a majority of two-thirds of the present members and the Council voters. But Article V.3 points out that every Member of the Council can within 120 days from the notification of the recommendation present objections to the recommendations. If this is the case, it will not be required to carry out the recommendations put forward. This open door to the objections posed problems in the adoption of management measures which has not allowed to put forward many of the GFCM recommendations

² Anon., 1977.- Basic Tests 7. Vol III. FAO Third Edition (revised).

among its Members. On the other hand, the application of management measures refer to the jurisdictional waters, and in general, only apply to 12 nautical miles. In consequence, there is an extensive territorial margin in which these recommendations of the Council are ineffective. Outside this 12 mile limit, the legal framework is the International Law of the Sea³.

The habitual way of establishing decisions in the GFCM is the following: the Technical Consultations and Working Groups formulate recommendations that are reported to the Fisheries Management Committee. This Committee examines and decides which recommendations should be presented at the next Council Session, and moreover decides on other new proposals. In the Council Assembly, it is decided by a qualified majority which of these recommendations will form part of the Resolutions approved by the GFCM, as pointed out in Article XIV.3 of the Council's Rule of Procedure.

METHODOLOGY

To compare the recommendations of the different Committees and Technical Consultations of the GFCM and its application on behalf of Spain, the documents of the Technical Consultations for the Evaluation of Stocks of the Balearic and Gulf of Lions Divisions have been revised, as well as, the different Expert Consultations and the joint ICCAT and GFCM meetings, the reports of the Fishing Management Committee and the reports of the General Assembly of the Council. Moreover, the document GFCMFUP5⁴ presented by the FAO-COPEMED Project to the X Meeting of Fishing Management Committee has also been revised. This document presented a revision of the GFCM recommendations since 1990. On behalf of the Spanish administration, a revision of the fishing legislation measures as published by the Ministry of Agriculture and Fisheries⁵ has been made. Furthermore, a compilation of management fishing measures in relation to resources and their conservation, published by the Spanish Official Bulletin from 1994 to present has been done to complete the previous information (Annex I).

A revision and classification of the information has been carried out following the published model of the Spanish Fishing Legislation previously mentioned. It includes the following sections in relation to Spanish fisheries:

- < General Dispositions
- < Fisheries Administrative Organization
- < Fishing Resources
- < Fishing Structures
- < Census
- < Fishing Market
- < Marine Aquaculture

³ Salz, P. (Coord.) 1997.- Comparison of Mediterranean and Atlantic Fisheries Management. The Hague, LEI-DLO OV 155.

⁴ Anónimo, 1997,. Recommendations of Different GFCM Meetings (Doc. FUP5). Comité de Ordenación de Pesquerías. Roma, Junio de 1997.

⁵ Anónimo, 1994.- Legislación Pesquera (Régimen jurídico de la pesca marítima). Secretaría General Técnica del MAPA (Edit.). Madrid, 1994.

- < Agreements and International Fishing Organizations
- < General Rules of Interest Applicable to Fisheries
- < Other

Once classified, comparative tables showing the GFCM Recommendations and the actual Spanish Fishing Legislations procedures analyzing its content and conclusions have been made.

RESULTS AND DISCUSSION

The revision of the reports of the Technical Consultations of the Statistical Divisions for the Balearic and the Gulf of Lions Area (Statistical Area 37.1 of the GFCM) indicates that it has not produced an excessive amount of recommendations for the management. In many cases, they were very general and emphasizing on research recommendations (basic statistics, stock delimitation, and evaluation of the main exploited species etc.). The revised Technical Consultations and Expert Consultations (GFCM-ICCAT) are listed below.

The tables elaborated for the Fishing Management Committee Meeting (Rome, 1997) are presented in Annex 2. These tables include a selection of recommendations formulated by: the Technical Consultations, the Fishing Management Committee and the Council. The recommendations presented to the Fishing Management Committee coming from the Technical Consultations and from its own recommendations conform Committee recommendations. The Committee has not always taken into account the recommendations of the Technical Consultations, although it has fundamentally adopted the ICCAT recommendations. In addition, the recommendations of the three meetings celebrated by the Fishing Management Committee during the study⁶ period have been revised. Furthermore, the three meetings of the Council have also been revised.

With respect to the Spanish legislation, a total of 46 Rules have been revised (Anexo 1). These refer to Spanish fisheries in the Mediterranean, according to its Fishing Gear (Trawl, Purse Seine, Artisanal gear, Coral fishing, Sport Fishing and other gear), Fleet Census, to a series of regulations related with the obligation to maintain logbooks for determined fleets, or the competence of the Autonomic Communities, and to the regulation of fishing activity, the creation of Marine Reserves or Protected Areas for fisheries, or the establishment of Protected Fishing Zones for the conservation of the resources.

⁶ GFCM. Sixth Technical Consultation on Stock Assessment in the Gulf of Lions and Balearic Divisions. Casablanca, Morocco, 28-2 June 1990.

GFCM-ICCAT. Expert Consultation on Evaluation of Stocks of Large Pelagic Fishes in the Mediterranean Area. Bari, Italy, 21-27 June 1990.

GFCM-ICCAT. Expert Consultation on Stocks of Large Pelagic Fishes in the Mediterranean Area. Iraklion (Crete), Greece, 17-23 September 1992.

GFCM. Seventh Technical Consultation on Stock Assessment in the Gulf of Lions and Balearic Divisions. Sete, France, 19-23 September 1994.

GFCM. Eighth Technical Consultation on Stock Assessment in the Western Mediterranean. Casablanca, Morocco, 14-17 October 1996.

Another aspect to consider in reference to the Spanish Fishing Regulation in the Mediterranean is the (CEE) 1626/94 Regulation of the Council, by which determined types of technical measures for the conservation of resources and other fishing measures are established for Mediterranean EU member countries. This regulation includes aspects related with minimum mesh size, minimum fish size, fishing vessel characteristics and fishing gear, etc., of obligated accomplishment which reduces the illegal fishing practice within the member states.

With the previously reported information, a comparative table has been elaborated. It compares the Recommendations of the Technical Consultations of the Balearic and Gulf of Lions Area, the recommendations of the Committee on Fisheries Management, the resolutions of the General Council and the Spanish fishing regulation, pointing out in each case the date of the recommendation and the resolution (in the case of the GFCM) and the date of publication in the Spanish Official Bulletin of the resolution of obligatory accomplishment for the Spanish fleet (Royal Decree, Royal Order, etc.).

PRINCIPAL RECOMMENDATIONS AND RESOLUTIONS OF THE GFCM.	APPLIED RULES FOR SPANISH FISHING LEGISLATION
TRAWL FISHERY	
Introduce of a minimum mesh size of 40 mm. Carry out studies on the specific objectives for increasing the mesh size among big trawlers and about possible biological and economical effects. (TC, 1990)	RD 6791/1988; Regulates the Trawl Fishery. Minimum mesh size of 40 mm. Horsepower <500 HP. Minimum vessel length >12 m. Minimum size for different species. Order January 90. Fixes for January 1993 the date of adaptation
TUNA FISHERIES	
Establish a system of licences and some prohibitions on the utilization of large scale driftnets. (TC, 1990)	Order 30 January 1989. Publishes an operative fleet Census for fishing modality and region.
-Adoption by the Council of a measure setting a bluefin minimum capture weight identical to that recommended by ICCAT. (CFM, 1991)	RD 560/1995. Establish a minimum size of 70 cm or 6,4 Kg for Bluefin Tuna in the Mediterranean. ⁷ ICCAT Recommendation: Year 1975
-Endorse the U.N. General Assembly resolution 44/225 concerning driftnets. (CFM, 1991)	Order of October 22, 1990 that prohibits the use of driftnets in the Mediterranean.
-Take measures to make available information on fishing boats in the Mediterranean under flags of States which are not members of the GFCM and are not contracting States of ICCAT. (CFM, 1994)	Order of July 4, 1991 on the regulation of origin controls of catches from foreign fishing vessels of non-European community members ICCAT Recommendation
Recommended that the management measures adopted by ICCAT for the management of tuna and tuna-like fisheries in the Mediterranean, should also be adopted formally by GFCM, and should be applied by member countries of GFCM including those which are no ICCAT members. GFCM/ICCAT, 1994) ⁸	RD 1315/97 that establishes a protected fishing zone in the Mediterranean outside the 12 limit for the conservation resources. RD 71/1998 that regulates the tuna fishery and tuna-like species in the Mediterranean. ICCAT Recommendation

⁷ GFCM. Eighth Session of the Committee on Fisheries Management. Rome, Italy, 28-31 October 1991.

GFCM. Ninth Session of the Committee on Fisheries Management. Rome, Italy, 17-21 October 1994.

GFCM. Tenth Session of the Committee on Fisheries Management. Rome, Italy, 17-20 June 1997.

⁸ GFCM. Eighth Session of the Committee on Fisheries Management. Rome, Italy, 28-31 October 1991.

GFCM. Ninth Session of the Committee on Fisheries Management. Rome, Italy, 17-21 October 1994.

GFCM. Tenth Session of the Committee on Fisheries Management. Rome, Italy, 17-20 June 1997.

- <u>Propose</u> the adoption of ICCAT's management measures for tuna and tuna-like fisheries in the Mediterranean. (CFM, 1994)	RD 1315/97 that establishes a protected fishing zone in the Mediterranean outside the 12 nautical mile limit for the conservation resources. RD 71/1998 that regulates the tuna fishery and tuna-like species in the Mediterranean..
- <u>Adopt</u> ICCAT management measures for tuna and tuna-like fisheries in the Mediterranean. Resolution 95/1 (GFCM, 1995)	Idem.
-Prohibition of the bluefin tuna purse seine fishery during the period 1 to 31 August. -Prohibition of the use of airplanes and helicopters in support of such fishing operations in the month of June. Resolution 97/3 (GFCM, 1997)	ICCAT Recommendations adopted in 1989 and subsequent years concerning fishing activities in the Mediterranean RD 71/1998 that regulates the tuna fishery in the Mediterranean, regulating the use of this fishing gear indicating the specific authorization for this gear ICCAT Recommendation.
-No vessel flying the flag of a Contracting Party of GFCM may keep on board, or use for fishing, one or more driftnets whose individual or total length is more than 2.5 kilometres; -Throughout the fishing referred to in paragraph 1, the net must, if it is longer than one kilometre, remain attached to the vessel. However, within the 12 mile coastal band, a vessel may detach itself from the net, provided it keeps it under constant observation. Resolution 97/1 (GFCM, 1997)	Order of November 24, 1981 that regulates the driftnet fishery. Order of October 22, 1990 that prohibits the use of driftnets in the Mediterranean. Establishes a maximum length of 1,5 Km for its use in the artisanal fishery of bonito, melva y afines. Prohibits the catch of swordfish, marrajo , bluefin tuna and albacore with the use of any type of entangling net in the Mediterranean.

FLEETS	
-Set a inimum length limit of 15 metres for the application of the Agreement to Promote Compliance with International conservation and Management Measures by Fishing Vessels on the High Seas). Resolution 95/2 (GFCM, 1995)	EU Competence
-Call on its member countries to prepare a list of fishing boats in operation from national ports in the Mediterranean and provide this information to the GFCM Secretariat by October 1995. Resolution 95/4 (GFCM, 1995)	Order of January 30, 1989. Publishes operative fleet Census for fishing modality and region.in July of 1994, October of 1995 and October of 1996 (See Annex 1)
Countries should provide their fleet data on the existing fleet of vessels of 15 m OAL currently operating outside national jurisdiction. In the case of Western Mediterranean States, the collection of this data could be facilitated through COPEMED Project. (CFM, 1997)	Spain presented its fleet data to the GFCM through the FAO-COPEMED Project in 1997 ⁹

CONTAMINATION	
-Set up efforts to reduce, and ultimately eliminate, inputs into the Mediterranean marine environment, of substances which are toxic, persistent and liable to bio-accumulate. Resolution 95/3 (GFCM, 1995)	Competence of the Ministry of Environment.

GFCM: General Fisheries Council for the Mediterranean

CFM: Committee on Fisheries Management

TC: Technical Consultation on Stocks Evaluation

The Recommendations and Resolutions have been classified into 4 groups: Trawl Fishery, Tuna Fishery, Fleets and Contamination. The principal part of the recommendations affect the tuna fishery, for different

⁹ Informe de la 3ª Reunión del Comité de Dirección del Proyecto COPEMED. Malta, 12-13 de Marzo de 1998.

reasons. The ICCAT is a prestigious international Commission that from 1994, after celebrating the first joint meeting GFCM/ICCAT held in the city of Málaga, has celebrated meetings with the representatives of other Mediterranean countries (including those which are not members of the ICCAT) with the aim of ameliorating the fishing statistics and protecting the tuna resources, primarily bluefin tuna (*Thunnus thynnus*) and swordfish (*Xyphias gladius*). Both of these species pose important problems because of their migratory behaviour and their spawning grounds' distribution over different Mediterranean areas. Therefore, it was considered fundamental for their conservation, a joint management of their fisheries by the different countries of the Mediterranean.

The second group of recommendations refer to the Fleet. An important aspect to point out is that at the actual moment, in the meetings of the GFCM, as well as in the EU Commission and in the Expert Meetings, it considered essential that the management measures in the fisheries in the Mediterranean must be canalized through fishing effort management measures and through its reduction. It is therefore important to know firstly, the national fleet components and their technical characteristics. This is the cause of such an insistence in knowing the Fleet Census, at least of those vessels over 15 m length that can work outside the 12 mile limit, and exploit shared and straddling stocks.

Lastly, different recommendations related to the increase of a minimum mesh size in the cod-ends of the trawling gear have been put forward, until reaching the minimum of 40 mm. This recommendation was a result of the Technical Consultation held in 1990, but it can be found in other GFCM meetings, in the Western Mediterranean, as well as in the Eastern Mediterranean. The objective of this measure is to reduce the fishing mortality on the juvenile stages, knowing that this age group are preferential in many of the trawl fisheries of the region.

Finally, a last group of recommendations refer to the need of reducing and eliminating contaminating substances that can represent a danger to living organisms due to their toxicity. These substances have been included in the Protocols of the Barcelona Convention for the Protection of the Mediterranean¹⁰

As can be observed in the major part of the cases, Spain already counted on legal regulations that are contemplated in the GFCM recommendations. In the case of the minimum mesh size of 40 mm for the trawl fishery, it is of obligatory accomplishment since January 1993, after going through a period of adaptation from the date of its regulation in 1988, that was previous to the GFCM proposal.

With respect to ICCAT recommendations, Spain as a Contracting Part of the Agreement¹¹, is required to put into practice its recommendations in a 6 month period after the official notification of the Commission, unless

¹⁰ Anónimo, 1996.- Convenio de Barcelona para la protección del Mediterráneo. Programa de Naciones Unidas para el Medio Ambiente (PNUMA). Serie Monografías. Edita: Centro de Publicaciones. Secretaría general Técnica del Ministerio de Medio Ambiente

¹¹ Convenio Internacional para la Conservación del Atún del Atlántico. Textos Básicos. Comisión Internacional para la Conservación del Atún Atlántico. Madrid. España. 1985 (2ª Revisión)

no objections are presented within this period. Therefore, it is not necessary to enforce a national regulation in order to comply with the Recommendations of ICCAT. Nevertheless, Spain has adopted an active policy during the last ten years directed towards the conservation of bluefin tuna and swordfish in the Mediterranean, acting within the framework of the United Nations, as well as in the European Union, the ICCAT or the GFCM, supporting the total elimination of driftnet fisheries and striving towards a major control of the bluefin tuna fisheries in the Mediterranean.

In reference to the fleets, Spain counts on an Operative Fleet Census that is regularly updated. It allows a better knowledge on the fleet composed of vessels over 12 m length and provide the data through the FAO-COPEMED project to the FAO.

One of the major problems of control is the recommendation related to the disposal of residuals. Although the Protocols of the Barcelona Convention have originated national policies in this matter, it should be pointed out that most of the effort and investment to ameliorate the submarine outlets and uncontrolled spills of residuals is under the framework of the local authorities, such as the cities, and therefore, we think that it is in the right way.

To finalize, we would like to point out that although there is an extensive legal framework that protects the resources of the Spanish territorial waters, that even include the offshore limits of the 12 n miles, there still is a basic question, that is in the interpretation of the degree of accomplishment of the legalities. The share of competences between the Autonomic Communities and the Central Administration has increased the vigilance and control of the fleets, fishing periods, minimum sizes, etc., that lead to the execution of international resolutions coming from the GFCM, as well as, from other international entities.

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ANNEX 1.

LIST OF FISHING REGULATIONS THAT AFFECT THE NATIONAL MEDITERRANEAN FISHING GROUNDS AS PUBLISHED BY THE SPANISH ADMINISTRATION.

- < Real Orden de 5 de febrero de 1906. Reglamento para la explotación de la industria esponjera ("MG" del 21).
- < Ley de 31 de diciembre de 1946, sobre represión de la pesca con explosivos o sustancias venenosas o corrosivas (BOE nº 2, de 2 de enero de 1947).
- < Orden de 3 de diciembre de 1963. Pesca marítima. Aprueba Reglamento de la de recreo (BOE nº 34, de 8 de febrero).
- < Orden de 15 de abril de 1969. Regulación de la pesca marítima con artes de "volanta" (BOE nº 22, Rect. 3 de mayo).
- < Orden de 14 de febrero de 1972 (Mº Comercio). Pesca marítima, de langosta de Sahara (BOE nº 54, de 3 de marzo).
- < Orden de 5 de marzo de 1973, sobre reducción de actividad en el Mediterráneo (derogada en cuanto se refiere a pesca de arrastre y cerco y queda en vigor el apartado correspondiente al llamado arte de "mosca" (BOE nº 71, de 23 de marzo de 1973).
- < Resolución de 30 de abril de 1976 que dicta normas para regulación del esfuerzo de pesca de arrastre en el Mediterráneo y para concesión de licencias para costera o litoral de dicha modalidad (BOE nº 133, de 3 de junio).
- < Orden de 24 de noviembre de 1981 por la que se regula el ejercicio de la actividad pesquera con artes fijos o de deriva en el Mediterráneo (BOE nº 289, de 3 de diciembre).
- < Real Decreto 3490/1981, de 29 de diciembre, por el que se transfieren competencias en materia de agricultura y pesca a la Junta de Andalucía (BOE nº 35, de 10 de febrero de 1982).
- < Orden de 30 de julio de 1983 por la que se regula la pesca con arte "claro" en el caladero nacional (BOE nº 200, de 22 de agosto).
- < Orden de 18 de enero de 1984 por la que se regula la pesca con el arte de "palangre de superficie" (BOE nº 51, de 29 de febrero).
- < Real Decreto 1212/1984, de 8 de junio, por el que se regula la pesca del coral (BOE nº 152, de 26 de junio).
- < Real Decreto 2349/1984, de 28 de noviembre, por el que se regula la pesca de "cerco" en el caladero nacional (BOE nº 5, de 5 de enero).
- < Orden de 15 de marzo de 1985, por la que se desarrolla el Real Decreto 1212/1984, de 8 de junio, por el que se regula la pesca del coral (BOE nº 76, de 29 de marzo).
- < Circular 027/33/86, de la Dirección General de Ordenación Pesquera, de 18 de junio de 1986. Obligatoriedad de utilización de Diario de a Bordo por los buques españoles y declaración de desembarco/transbordo.
- < Orden de 27 de abril de 1987 por la que se regula la pesca de la langosta ("Palinurus elephas") en aguas del mar territorial español correspondientes al archipiélago balear, con exclusión de sus aguas interiores (BOE nº 107, de 5 de mayo).
- < Real Decreto 679/1988, de 25 de junio, por el que se regula el ejercicio de la pesca de arrastre de fondo en el Mediterráneo (BOE nº 160, de 5 de julio).
- < Orden de 30 de enero de 1989 sobre la realización de un censo de la flota pesquera operativa (BOE nº 28, de 2 de febrero).

- < Orden de 29 de enero de 1990 por la que se determina el periodo de adaptación de las dimensiones de las mallas utilizadas en la pesca de arrastre de fondo en el Mediterráneo (BOE nº 35, de 9 de febrero).
- < Orden de 20 de abril de 1990 por la que se regula la pesquería de la "lampuga", con el arte de lampuguera en los caladeros propios de las islas Baleares, por fuera de aguas interiores (BOE nº 99, de 25 de abril).
- < Orden de 22 de octubre de 1990 por la que se prohíbe el uso de los artes de deriva y se regula su empleo como artes menores en el área mediterránea (BOE nº 255, de 24 de octubre de 1990).
- < Real Decreto 1724/1990, de 28 de diciembre, por el que se regula el ejercicio de la pesca marítima con aparejo de palangre de fondo en el litoral mediterráneo (BOE nº 4, de 4 de enero de 1991).
- < Orden de 4 de julio de 1991 sobre regulación del control del origen de las capturas de buques pesqueros extranjeros no comunitarios (BOE nº 160, de 5 de julio de 1991).
- < Orden de 31 de julio de 1991 por la que se corrigen errores de la de 4 de julio de 1991, sobre regulación del control del origen de las capturas de buques pesqueros extranjeros no comunitarios (BOE nº 214, de 6 de septiembre de 1991).
- < Real Decreto 139/1993, de 29 de enero, por el que se modifica el Real Decreto 2349/1984, de 28 de noviembre, que regula la pesca con artes de cerco en el caladero nacional (BOE nº 49, de 26 de febrero).
- < Orden de 27 de mayo de 1994 por la que se establece una veda temporal para el atún rojo en el mar Mediterráneo (BOE nº 129, de 31 de mayo).
- < Resolución de 18 de julio de 1994, de la Dirección General de Recursos Pesqueros, por la que se hacen públicos los censos actualizados de buques del caladero nacional por modalidades de pesca (BOE nº 180, de 29 de julio).
- < Orden de 29 de julio de 1994 por la que se regula la pesquería del boquerón en el golfo de León (BOE nº 186 de 5 de agosto).
- < Orden de 13 de enero de 1995, por la que se regula la actividad de las embarcaciones de arrastre peninsulares en el caladero de las islas de Ibiza y Formentera (BOE nº 46 de 23 de febrero de 1995).
- < Orden de 21 de marzo de 1995, por la que se establecen fondos mínimos para el arrastre en el litoral de la provincia de Almería (BOE nº 74 de 28 de marzo de 1995).
- < Real Decreto 560/1995, de 7 de abril, por el que se establecen las tallas mínimas de determinadas especies pesqueras (BOE nº 84 de 8 de abril de 1995).
- < Real Decreto 277/1995, de 24 de febrero, por el que se aprueba el Plan rector de uso y gestión del Parque Nacional Marítimo-Terrestre del Archipiélago de Cabrera (BOE nº 92 de 18 de abril de 1995).
- < Orden de 22 de junio de 1995 por la que se establece una reserva marina en el entorno del Cabo de Palos - Islas Hormigas (BOE nº 161 de 7 de julio de 1995).
- < Resolución de 19 de septiembre de 1995, de la Secretaría General de Pesca Marítima, por la que se hacen públicos determinados censos actualizados de buques del Caladero Nacional por modalidades de pesca (BOE nº 250 de 19 de octubre de 1995).
- < Orden de 27 de junio de 1996, por la que se establecen fondos mínimos para el arrastre en el litoral de la provincia de Almería (BOE nº 162 de 5 de julio de 1996).
- < Orden de 3 de julio de 1995 y Orden de 31 de julio de 1996, que modifica la anterior, por la que se establece la reserva marina de Cabo de Gata - Níjar (BOE nº 207 de 27 de agosto de 1996).
- < Resolución de 19 de septiembre de 1996, de la Secretaría General de Pesca Marítima, por la que se hacen públicos determinados censos actualizados de buques del Caladero Nacional por modalidades de pesca (BOE nº 252 de 18 de octubre de 1996).

- < Orden de 13 de junio de 1997, por la que se regula la pesca de arrastre de fondo en la isla de Alborán (BOE nº 150 de 24 de junio de 1997).
- < Orden de 19 de junio de 1997, por la que se establecen fondos mínimos para el arrastre en el litoral de las provincias de Almería y Granada (BOE nº 153 de 27 de junio de 1997).
- < Orden de 31 de julio de 1997, por la que se establece una reserva marina y una reserva de pesca en el entorno de la isla de Alborán (BOE nº 204 de 26 de agosto de 1997).
- < Real Decreto 1315/1997, de 1 de agosto, por el que se establece una zona de protección pesquera en el mar Mediterráneo (BOE nº 204 de 26 de agosto de 1997).
- < Orden de 1 de septiembre de 1997, por la que se regula la intensidad lumínica de los focos de los botes auxiliares de los buques de cerco en el Mediterráneo (BOE nº 219 de 12 de septiembre de 1997).
- < Orden de 10 de diciembre de 1997, por la que se establece una veda temporal para la pesca de la modalidad de cerco en determinadas zonas del litoral mediterráneo (BOE nº 300 de 16 de diciembre de 1997).
- < Real Decreto 1838/1997, de 5 de diciembre, por el que se regulan el inicio de la actividad pesquera y los establecimientos y cambios de base de buques pesqueros (BOE nº 312 de 30 de diciembre de 1997).
- < Real Decreto 71/1998, de 23 de enero, por el que se regula el ejercicio de la pesca de túnidos y especies afines en el Mediterráneo (BOE nº 33 de 7 de febrero de 1998).
- < Orden de 19 de febrero de 1998, por la que se establece una veda temporal para la pesca de la modalidad de cerco en determinada zona del litoral mediterráneo (BOE nº 47 de 24 de febrero de 1998).

ANEXO 2. RECOMMENDATIONS OF GFCM BODIES (FROM 1990 UP TODAY). According De Leiva. 1997.

Recommendations of GFCM Consultations (1,2,3,4)	Recommendations of GFCM Committee on Fisheries Management (5)	Decisions adopted by the GFCM Council (8)
<p>1) –More collaboration between GFCM and CIESM particularly in benthic biology. -Introduce a minimum mesh size of 40 mm. Carry out studies on the specific objectives for increasing the mesh size among big trawlers and about possible biological and economical effects. -Establish a system of licences and some prohibitions on the utilization of large scale driftnets.</p>	<p>-Collaboration and exchange of information between GFCM and ICCAT scientists and organization of a new joint GFCM-ICCAT experts meeting.</p>	<p>-Agreed on including Ionian and Adriatic seas in the Central Mediterranean area when organizing the Technical Consultation on the stocks of that area.</p>
<p>2) -Convene regular consultations GFCM/ICCAT and promote countries attendance. -Improve close collaboration among scientists. -Improve statistics, sampling and exchange of information. -Ask for Council's decision whether or not bluefin minimum size regulation already recommended by ICCAT should also be the subject of a formal GFCM recommendation.</p>	<p>-Adoption by the Council of a measure setting a bluefin minimum capture weight identical to that recommended by ICCAT.</p>	<p>-Recommend that the list of directors of Fisheries in the Mediterranean needs continuous updating.</p>
<p>3) -Countries should conduct evaluations of existing fishery statistical systems to assess data quality and coverage and identify improvements. -Better coverage of economic and social data. -Establish a list of minimum data requirements and of common definitions and concepts in the GFCM region. -Assist countries with inadequate financial means and trained personnel to improve their fishery statistical systems. -Study the role of economic incentives/disincentives in managing fisheries. -Compile information on regulations governing the exploitation of shared resources and on available studies of fisheries organizations that perform management functions. -More wide-spread use of bio-economic models.</p>	<p>-Further studies and investigations in view of the evaluations of the impact of fishing effort reduction objectives on the state of major commercial stocks .</p>	<p>-Agreed on the Executives Committee's conclusion relating to the necessity for a new approach to fisheries management which should take into consideration the various aspects of the marine environment.</p>
<p>4) -Carry out a study for the Aegean Sea in which both the environment and the renewal resources are discussed together. -Reconcile the work of the GFCM with that of the STCF group of the EC. -Setting up a special workshop on statistical data collection and analysis procedures in the subregion. -Carry out a workshop of commercial species of Mullidae. -Broader coverage for the Consultation which might also include Black Sea.</p>	<p>-Establish data-series concerning catch, fishing effort and fleet composition.</p>	<p>-Develop a research project for studying the decline of anchovy and some sardine stocks.</p>
	<p>-Improve the present statistical data. -Upgrade the scope, coverage and accuracy of the GFCM regional statistics.</p>	<p>-Suggest that a review of the STATLANT B form be undertaken with EC cooperation.</p>
	<p>-Better integration of fishery and environmental considerations as a basis for management advice.</p>	<p>-Agreed that the Secretariat should prepare a review of existing regulations in GFCM member countries.</p>
	<p>-Hold a Mediterranean-wide meeting of directors of marine biological and fisheries laboratories, and of the appropriate regional organizations, to develop a plan for cooperative monitoring of fisheries and environmental factors.</p>	<p>-Agreed that it was necessary to harmonize measures to protect resources and requested the Secretariat to develop a draft of "Principles for the management of fisheries in the Mediterranean" for consideration by the Committee on Fisheries Management and subsequently by the Executive Committee and by the Council.</p>
	<p>-Preparation of a framework for action in the form of a project document that could support environmental aspects of the work of the Council.</p>	<p>-Support the establishment of a joint Ad hoc GFCM/ICCAT Working Group on large pelagic species.</p>
	<p>-National administrations should review their needs in fisheries research, as well as in the associated requirements for complete and reliable data on catch, fleet size and fishing effort.</p>	<p>-Recommend that a cooperative research programme be undertaken to investigate and compare trends in resource abundance in the different basins of the Mediterranean.</p>
	<p>-Better definition of stock units and standardization of sampling schemes among harvesting countries for the main shared resources of the Mediterranean.</p>	<p>-Recommend to broaden and enhance participation in the Executive Committee to make it more representative of the region and to enhance its powers to act on behalf of the GFCM during the intersessional periods.</p>
	<p>-Endorse the U.N. General Assembly resolution 44/225 concerning driftnets.</p>	
	<p>-EEC be associated more actively in future meetings of the Council and in intersessional activities of GFCM.</p>	
	<p>-GFCM continue to cooperate with the Intergovernmental Oceanographic Commission (IOC) within the framework of the OSLR programme.</p>	
	<p>-Reconsider in detail the question of the nature and composition of all the subsidiary bodies of the Council.</p>	

- 1) GFCM. Sixth Technical Consultation on Stock Assessment in the Gulf of Lions and Balearic Divisions. Casablanca, Morocco, 28-2 June 1990.
- 2) GFCM-ICCAT. Expert Consultation on Evaluation of Stocks of Large Pelagic Fishes in the Mediterranean Area. Bari, Italy, 21-27 June 1990.
- 3) GFCM. Working Party on Fisheries Economics and Statistics. Rome, Italy, 27-31 May 1991.
- 4) GFCM. Fourth Technical Consultation on Stock Assessment in the Eastern Mediterranean. Thessaloniki, Greece, 7-10 October 1991.

Recommendations of GFCM Consultations (6,7,9,11,12)
6) -Make available the catch and biological data of vessels flying flags of convenience. -Implementation of joint research programmes. -Establish an "Ad Hoc Working Group on Large Pelagic Fishes in the Mediterranean".
7) -Implementation of co-operation in research surveys. -Establish regular working groups on shared stocks that should examine the potential yield currently available. -Establish a working group in <u>Mnemiopsis</u> control. -Recommend the Black Sea GEF Programme that in setting targets for pollution levels the impacts on fisheries should be taken into account. -Set up or relaunching a specific Black Sea management body in order to achieve co-ordinated action on fisheries assessment.
9) -Management of shared stocks should be supported by joint assessment carried out in cooperation among the concerned countries. -Different approach methodologies can improve stocks assessment and bioeconomic modelling in particular must bring additional management elements. -Fisheries management objectives are not of the exclusive Administrator's responsibility. Those goals should originate from broad consultations with the fishing industry operators. -Need of fostering: -the financing for common research activities; -the coordination at the level of research program conception; -the standardization of research methodologies; -the number of trained and up to date scientific staff. -Increase official collaboration with other Mediterranean scientific fora (CIESM, ICCAT, etc).
11) -Enter Italian and Tunisian data in POPDYN database. -Regular funding of research programmes. -Identification of essential time series information. -Standardize data collection methods and analysis.
12) -Propose the Council to accept the minimum size of 15 metres for the purposes of the "Compliance Agreement". -Need for a regional mechanism for maintaining a record of vessels authorized to fish on the high seas.

Recommendations of GFCM Committee on Fisheries Management (10)
-Take measures to make available information on fishing boats in the Mediterranean under flags of States which are not members of the GFCM and are not contracting States of ICCAT.
-Propose the adoption of ICCAT's management measures for tuna and tuna-like fisheries in the Mediterranean.
-Minimum frequency of regular assessments of the key stocks in the Western Mediterranean should be of two years.
-Management of shared stocks in the Western Mediterranean should be carried out in a co-operative manner and on the basis of co-operative assessments by the countries concerned;
-Recommend the use of modern standard approaches for the assessment of Western Mediterranean stocks;
-POPDYN database should be adopted by all member countries.
-Establishment of management objectives should follow from a broad consultation among all those concerned in the fishing industry;
-Develop research programmes to assess the impact of oceanographic and climatic conditions and fishing for juveniles on the status of the Mediterranean anchovy and sardine stocks.
-Propose the reduction of the Technical Consultations on Stock Assessment to three.
-Try to establish and update regularly a network of key persons and institutions engaged in all aspects of fisheries research and management.
-Associate as much as possible membership by non-EU scientists to EU research projects.
-Request the Working Party on Fisheries Economics and Statistics to develop minimum standards for statistical data collecting.
-Direct assessment of the marine resources by scientific surveys should also be developed as a supplement of using national statistics in stocks assessment.
-Carry out research programmes that integrate environment and fisheries aspects.
-More detailed guidelines for and effort-based management system should be laid down by the Secretariat.
-The Black Sea GEF Programme should take into account the impact on fisheries when addressing the issue of pollution of the Black Sea and incoming rivers.

- 5) GFCM. Eighth Session of the Committee on Fisheries Management. Rome, Italy, 28-31 October 1991.
8) GFCM Meeting, 20th Session, Qwara, Malta, 5-9 July 1993.

Decisions adopted by the GFCM Council (13)
-Adopt ICCAT management measures for tuna and tuna-like fisheries in the Mediterranean. Resolution 95/1
-Set a minimum length limit of 15 metres for the application of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas). Resolution 95/2
-Set up efforts to reduce, and ultimately eliminate, inputs into the Mediterranean marine environment, of substances which are toxic, persistent and liable to bio-accumulate. -Reduce inputs of nitrogen and phosphorus, especially in enclosed and semi-enclosed marine areas where eutrophication has or may have detrimental environmental impacts such as fish kills and shellfish poisoning with serious economic losses for the fisheries and aquaculture sectors. -Promote all necessary measures to protect sensitive Mediterranean habitats, such as coastal lagoons, important to fisheries and intensive aquaculture. Resolution 95/3
-Call on its member countries to prepare a list of fishing boats in operation from national ports in the Mediterranean and provide this information to the GFCM Secretariat by October 1995. Resolution 95/4
-Acknowledge the need to improve the status of statistics in the Mediterranean and agreed on the review and the analysis of the STATLANT forms.
-Endorse the recommendation of the GFCM Committee on Fisheries Management that there should be three sub-regional Technical Consultations: Western Mediterranean, Eastern Mediterranean and Black Sea.
-Follow up closely with ICCAT on the possibility of formalizing cooperation not only at the technical level, but also at the management level.
-Recommend that the question of the autonomous budget should be kept under review.
-Request the Secretariat to obtain the information available on SARP activities.

- 6) GFCM-ICCAT. Expert Consultation on Stocks of Large Pelagic Fishes in the Mediterranean Area. Iraklion (Crete), Greece, 17-23 September 1992.
7) GFCM. Second Technical Consultation on Stock Assessment in the Black Sea. Ankara, Turkey, 15-19 February 1993.
9) GFCM. Seventh Technical Consultation on Stock Assessment in the Gulf of Lions and Balearic Divisions. Sete, France, 19-23 September 1994.
10) GFCM. Ninth Session of the Committee on Fisheries Management. Rome, Italy, 17-21 October 1994.
11) GFCM. Third Technical Consultation on Stock Assessment in the Central Mediterranean. Tunis, Tunisia, 8-12 November 1994.
12) GFCM. Ad hoc Meeting of Experts on the Application of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas. Valletta, Malta, 6-8, March 1995.
13) GFCM Meeting, 21st Session, Alicante, Spain, 22-26 May 1995.

Recommendations of GFCM Consultations (14,15)
<p>14) -Data on discards should be collected, studied and presented in detail, particularly the juveniles of commercial species.</p> <p>-Once again remember that States should give priority to improve fishery statistics.</p> <p>-Convene the DYNPOP Working Group in population dynamics of the CIESM/CIHEAM with the aim of preparing before the end of 1997, an analysis of the impact of mortality rates (natural as well as fishing mortality) by age in population dynamics and in the diagnostic of the proportion of adults and spawners of the exploited stocks.</p> <p>-A debate about different approaches for population analysis and management measures should be carried out in the next Committee on Fisheries Management.</p> <p>-An expert consultation for the identification of Mediterranean stock units should be celebrated in the near future.</p>
<p>5) -Establishment of a working group for drafting appropriate measures to execute the following recommendations:</p> <p>-Countries should adopt measures to avoid or reduce the taking of swordfish and dolphin fish juveniles.</p> <p>-Institution of closed season(s)/areas at times of the year and localities when and where juveniles make up a large proportion of swordfish catch.</p> <p>-Set-up a registry of vessels that take substantial numbers of swordfish.</p> <p>-A special effort be made to improve the database concerning those fisheries whether the fishery is directed or incidental.</p> <p>-Set up an ad hoc working group to deal with sports/recreational part-time fishing and assess its impacts.</p> <p>-Ask Member Countries to provide detailed accounts of the methods used for collection, treatment, summarization and storage of catch data by species reporting nationally to FAO.</p> <p>-A compendium of fisheries management regulations in use by Mediterranean countries should be prepared by the Secretariat.</p>

Recommendations of GFCM Committee on Fisheries Management (16)
-Inform the Council about cooperative work prepared in the Transboundary Diagnostic Analysis on Mediterranean fisheries that would be presented to a donors meeting within an investment portfolio of other issues by the end of 1997.
-Need to strengthen GFCM in order to permit it to address the new challenges facing it and to play its role as a regional management organization.
- Countries should provide their fleet data on the existing fleet of vessels of 15 m OAL currently operating outside national jurisdiction in the format given in Appendix I to this report, and ensure that it arrived at the Secretariat not later than 1 October 1997, so that a summary could be prepared for consideration at the next session of the Council. In the case of Western Mediterranean States, the collection of this data could be facilitated through COPEMED Project.
-Request the Secretariat to review the draft document on the Scale of Contributions and align it with a proposed detailed two-year Programme of Work. The Secretariat was further requested to also present a medium and long-term Programme of Work for the GFCM.
-The formulation of a regional strategy for the implementation of the Code of Conduct for Responsible Fisheries together with the elaboration of regional guidelines should be one of the priorities of the new structure of GFCM.-
-Agreement with the COPEMED project activities proposal.

Decisions adopted by the GFCM Council (17)
-Prohibition of the bluefin tuna purse seine fishery during the period 1 to 31 August.
-Prohibition of the use of airplanes and helicopters in support of such fishing operations in the month of June. Resolution 97/3
-No vessel flying the flag of a Contracting Party of GFCM may keep on board, or use for fishing, one or more driftnets whose individual or total length is more than 2.5 kilometres;
-Throughout the fishing referred to in paragraph 1, the net must, if it is longer than one kilometre, remain attached to the vessel. However, within the 12 mile coastal band, a vessel may detach itself from the net, provided it keeps it under constant observation. Resolution 97/1
The General Fisheries Council for the Mediterranean, acting under Article III, paragraph a) of the GFCM Agreement,
-CALLS UPON States which are not members of GFCM, but whose vessels engage in fishing activities in the region, to become members of GFCM or otherwise cooperate in the implementation of the recommendations adopted by the Council.
-CALLS UPON members of GFCM to report to the Council on any fishing activities by vessels flying the flag of non-members which undermine the effectiveness of GFCM recommendations, as well as on the activities of flagless vessels. Resolution 97/2
-The Council agreed upon a number of modifications to the proposed Amendments to the Agreement of GFCM.
-The Council in accordance with Article II.7 of the Agreement adopted by consensus the Rules of Procedure of the Council.

14.-GFCM. Eighth Technical Consultation on Stock Assessment in the Western Mediterranean. Casablanca, Morocco, 14-17 October 1996.

15.-GFCM. First Technical Consultation on Stock Assessment in the Central and Eastern Mediterranean. Nicosia, Cyprus 9-12 December 1996.

16.-GFCM. Tenth Session of the Committee on Fisheries Management. Rome, Italy, 17-20 June 1997.

17.- GFCM Meeting, 22nd Session. Rome, Italy, 13-16 October 1997.