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Organización  
de las  
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para la  
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## FISHERY COMMITTEE FOR THE EASTERN CENTRAL ATLANTIC

### Twenty-first session

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### Fisheries Management in the CECAF region: fisheries management recommendations and their utilization for fisheries management

#### ABSTRACT

For nearly 50 years, the Fishery Committee for the Eastern Central Atlantic (CECAF) has been working to encourage the sustainable use of living marine resources in a particularly productive region comprising 21 coastal states from Morocco to Angola. Due to the inadequate scientific information at the time of its establishment in 1967, CECAF directly set about strengthening scientific cooperation, developing research programmes and assisting member countries to establish the scientific basis needed for fisheries development. Today in the CECAF region, many planning initiatives concerned with fisheries have been developed which require the availability of better scientific information in order to propose decision support tools involving all relevant issues, whether biological, economic, social or related to marine or coastal ecosystems.

In this regard, CECAF continues to make recommendations for fisheries management, based mainly on the results of stock assessments. In order to better determine the expectations and needs of countries as regards the information needed for fisheries management and particularly the elaboration of development and management plans, this document will first analyze the prerogatives of CECAF concerning fisheries management and their evolution since its establishment.

Secondly, the document will examine the recommendations of CECAF and particularly the process by which these recommendations were developed, the data and information used in the formulation of scientific opinions, and the methods for analyzing these data leading to the formulation of the recommendations.

Lastly, the results of the survey carried out in the CECAF coastal countries will be analyzed, to better ascertain the extent of consideration and implementation of CECAF's recommendations in the fisheries management process, as well as the needs and expectations of member countries regarding the information and scientific analysis used in decision-making and for fisheries management in general.

## **1. INTRODUCTION**

For nearly 50 years, the Fishery Committee for the Eastern Central Atlantic (CECAF) has been working to encourage the sustainable use of living marine resources in a particularly productive region of the world comprising 21 coastal states from Morocco to Angola. Due to the inadequate scientific information available at the time of its establishment in 1967, CECAF directly set about strengthening scientific cooperation, developing research programmes and assisting member countries to establish the scientific basis needed for fisheries development.

CECAF was established during the period when concerns over the use of natural resources emerged with the problem of governance of oceans and management of fisheries.

Later in 1982, the United Nations Convention on the Law of the Sea (UNCLOS) helped to define the exclusive economic zones (EEZs) which confer on coastal States certain rights and responsibilities in the management and use of fisheries resources. With no change in its prerogatives, the efforts of the Committee have from this period been designed to support the development of national capacities in the management of fisheries and ensure the coordination of management measures among countries sharing the same resource in the CECAF region. Most of the work done by CECAF continued to focus on improving the scientific knowledge base and assessing the state of resources.

With the global development of marine fisheries continuing at a rate inconsistent with the resource renewal cycle, new approaches for planning and management of fisheries have emerged and being an organ of FAO, CECAF was able to play an important role in the dissemination of international instruments and work undertaken by FAO such as the Code of Conduct for Responsible Fisheries, International Plans of Action (IPOAs) and more recently the ecosystem approach to fisheries (EAF). At the same time, CECAF has continued to play an important role in sharing knowledge, experiences and achievements with the member countries and other partners such as subregional organisations or projects, which strengthen the role of CECAF as a catalyst for fostering exchanges in the fisheries sector. This is especially true for researchers who could provide and contribute their knowledge at the various scientific working group meetings.

Today in the CECAF region, many planning initiatives have been developed which require the availability of better scientific information in order to propose tools to support decision-making and fisheries management involving all relevant issues, whether biological, economic, and social or related to marine and coastal ecosystems.

In this regard, CECAF continues to make recommendations for fisheries management, based mainly on the results of stock assessments. In order to better determine the expectations and needs of countries as regards the information needed for fisheries management and particularly the elaboration of fisheries management plans, we will first seek to understand the prerogatives of CECAF concerning fisheries management and how they have evolved since its establishment.

Secondly, we will study the recommendations of CECAF and particularly the process by which these recommendations were elaborated, the data and information used in the

formulation of scientific opinions, and the methods for analyzing these data leading to the formulation of the recommendations.

Lastly, we will examine the results of the survey carried out in the CEEAF countries. This survey was intended i) to better ascertain the extent of consideration and implementation of the recommendations in the fisheries management process, and ii) to identify the needs and expectations of member countries regarding the information and scientific analysis used in decision-making and for fisheries management in general.

## **2. EVOLUTION OF CEEAF'S PREROGATIVES WITH REGARD TO FISHERIES MANAGEMENT<sup>1</sup>**

CEEAF was established in June 1967 with the objective of *"promoting the sustainable use of living marine resources within its area of competence by the proper management and development of the fisheries and fishing operations"*.

Established under Article VI paragraph 2 of the FAO Constitution, CEEAF is a statutory body, which is an integral part of FAO, whose statutory objective is *"to study and report on issues relating to the goals of the organization"*.

At the time of its establishment its Terms of Reference <sup>2</sup> were:

- To promote, coordinate and support national and regional research and development programmes for rational use of marine resources;
- To assist member governments to establish a scientific basis for regulatory measures to ensure the conservation and improvement of marine resources;
- To encourage education and training through the strengthening or creation of national and regional institutions and by the promotion and organisation of seminars, study trips and training centres;
- To assist member governments to develop programmes and implement them with international financing in order to achieve the above-mentioned objectives;
- To promote relations and cooperation between the institutions concerned in the area of competence of the Committee.

Thus, the first two elements of its terms of reference, directly concern CEEAF's role in fisheries management according to the above definition, by the compilation and analysis of information useful for the management process.

In 1992, at the twelfth meeting of the Committee, several amendments were made to its Terms of Reference and its mandate, notably with new objectives which were to develop marine aquaculture in brackish waters and to improve related processing and marketing activities<sup>3</sup>.

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<sup>1</sup> The term "fisheries management" used in this report is that defined in the FAO Technical Guidelines on Responsible Fisheries No.4: *The integrated processes of compilation of informations, analysis, consultation, decision-making, allocation of resources and formulation and improvement, with implementation if necessary, of rules governing fishery activities with a view to ensuring the sustainable production of resources and achievement of other objectives with regard to fisheries.*

<sup>2</sup> Statutes of CEEAF promulgated by the FAO Director General on 19 September 1967

<sup>3</sup> Report of the 12<sup>e</sup> session of the Fishery Committee for the Eastern Central Atlantic. Accra, Ghana, 27 April–1 May 1992. FAO, Fisheries Report. No. 469 Rome, FAO. 1992, 85p.

In 2001, a technical consultation organized by CECAF suggested that issues dealing with aquaculture in brackish waters and processing and marketing activities, which had been associated in 1992 with the objectives of CECAF, should be removed. These changes were approved at the sixteenth session of the Committee held 2002<sup>4</sup> and validated at the one hundred and twenty-fourth session of the FAO Council in 2003, during the adoption of the modified CECAF Terms of Reference<sup>5</sup> :

- To keep under review the state of resources within its area of competence and of the associated industries;
- To promote, encourage and coordinate research in the area related to living resources and to draw up programmes required for this purpose and to carry out such research as appropriate;
- To promote the collection, exchange, dissemination and analysis or study of statistical, biological, environmental and socio-economic data and other marine fishery information;
- To establish the scientific basis for regulatory measures leading to the conservation and management of marine fishery resources, to formulate such measures through subsidiary bodies, as required, to make appropriate recommendations for the adoption and implementation of these measures and to provide guidelines/advice for the adoption of regulatory measures by Member Governments, sub-regional or regional organizations, as appropriate;
- To provide advice on monitoring control and surveillance, especially as regards issues of a subregional and regional nature;
- To encourage, recommend and coordinate training in the priority areas of the Committee;
- To promote and encourage the use of the most appropriate fishing craft, gear and techniques;
- To promote liaison among and with competent institutions within the (maritime zone) of the Committee and to propose and keep under review working arrangements with other international organisations which have similar objectives within that area.

## **Structure**

To undertake these various tasks, CECAF established in 1972:

- The Sub-Committee for Management of Resources within the national jurisdiction, with special membership offered to coastal States in the region;
- The Working Group on the assessment of resources;
- The Working Group on fisheries statistics; and
- The Sub-Committee on fisheries development.

In 1998, the Committee dissolved its four statutory bodies and opted for a more simple structure, formed solely of the Committee and Scientific Sub-Committee (SSC).

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<sup>4</sup> Report of the sixteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 22-24 September, 2002

<sup>5</sup> Report of the FAO Council. One hundred and twenty fourth session. Rome, 23–28 June 2003.

At its first meeting in 2000, the SSC established three Working Groups:

1. A Working Group on small pelagics;
2. A Working Group on demersal species;
3. A Working Group on artisanal fisheries.

For operational reasons, the scientific groups for small pelagics and demersal resources were each sub-divided into two sub-groups:

- The sub-group north covers the area between Morocco and the southern border of Senegal, and
- The sub-group south covers the area from Guinea Bissau to Angola, including the island States.

*In brief, CECAF is a consultative body created under Article VI.2, which, unlike bodies created under Article XIV, cannot adopt regulatory measures relating to fisheries management which are binding on members. With regard to fisheries management its role is to:*

- *Establish the scientific basis for the elaboration of regulatory measures;*
- *Make recommendations for the adoption and implementation of these measures ;*
- *Provide advice for adoption of regulatory measures by member governments, regional and/or subregional organisations.*

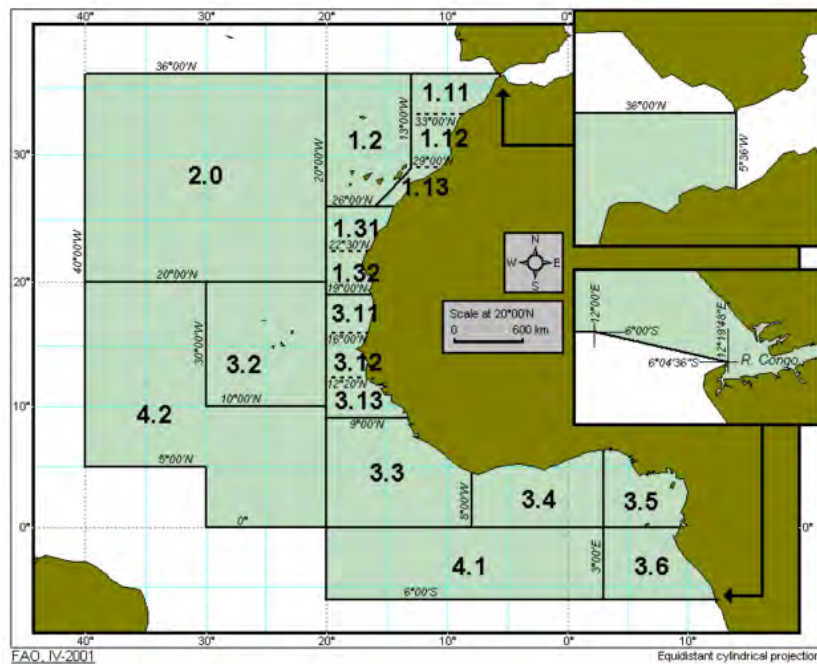
*It should also be noted that its prerogative regarding IUU fishing consists in:*

- *Providing advice on monitoring, control and surveillance at regional or sub-regional level.*

### **Area of competence**

The area of competence of CECAF is defined as all the living marine resources, and corresponds to a large extent to the statistical area 34 of FAO, from Cape Spartel to the River Congo, comprising both the exclusive economic zones (EEZs) of coastal countries and areas beyond national jurisdictions (ABNJ).

Figure: Statistical area 34 of FAO: Eastern Central Atlantic



Before the creation of the EEZs, the work undertaken by CECAF covered its entire area of competence. However since 1982 and the new Law of the Sea, CECAF has focused its work mainly on coastal areas located within the EEZs.

It should also be noted that despite Angola's membership of the Committee in 2006, CECAF's geographic area of competence has not yet been reviewed to reflect this membership status. In fact, since its establishment, the southern limit of the Committee's jurisdiction was fixed at the mouth of the River Congo and consequently Angola, which was then a Portuguese colony, was not part of it. However, in reality, the stock assessments and recommendations take Angola into account.

### 3. RECOMMENDATIONS OF CECAF ON FISHERIES MANAGEMENT

#### 3.1 Process for formulation of recommendations

Since 1998, the Scientific Sub-Committee (SSC) has been responsible for providing scientific advice to support fisheries management decisions. This "advice or recommendations" are then sent to the CECAF committee for validation and transmission to member countries.

Those in charge of formulating scientific opinions are the four scientific working groups (WGs) below<sup>6</sup>, which analyze the data available in order to assess the status of demersal and small pelagic resources and make recommendations for fisheries management.

<sup>6</sup> In 2000, the SSC decided to create 3 Working Groups: i) small pelagics; ii) demersals; and iii) artisanal fisheries. For implementation purposes, the first two Working Groups were sub-divided into two sub-groups each: north and south.

- Two Working Groups on small pelagics (WG-SP North and WG-SP South);
- Two Working Groups on demersal species (WG-D North and WG-D South).

The WGs also make recommendations on scientific research, the collection of data, methods of analysis or training requirements. All the work undertaken and conclusions of the WGs are compiled in scientific reports which are presented and discussed at the SSC in their entirety in the form of a summary report for validation.

### **3.1.1 Data and information used for the assessments and formulation of scientific opinions**

The Working Groups use several types of data for their work:

- National statistics which are transmitted to the different Working Groups by member countries through their experts and which include data on quantities caught and effort for each type of fish and fishing area as well as fishing fleets,
- Databases on the catch statistics of the FAO statistical programme Fishstat+/CECAF database,
- Data obtained from national exploratory and research surveys at sea,
- Data derived from study trips at sea at regional level (for example, R/V *Dr Fridtjof Nansen*),
- Information on biological parameters,
- Information on environmental parameters,
- Data or studies derived from specific reports or relevant projects.

Despite these different sources of information, the deficiencies in terms of availability and quality of data have long been a limiting factor for the assessments on which the formulation of management advice and recommendations is largely based. Though today, the problem of viability and lack of data is far less serious than previously, this problem persists, especially in the area south of CECAF and for demersal species. This problem of sampling and regular collection of data affects the different fishery segments and particularly the artisanal fishery sector.

Concerning the data used in formulating recommendations and scientific opinions, a recent report<sup>7</sup> stipulates that *“the improvement of data and access to existing data is a priority for the elaboration and application of more advanced stock assessment models, as the current, appropriate methods can be improved in terms of assessment by taking into consideration all the available data”*. In spite of this, the report also concluded that, in general, the modeling approaches currently used are appropriate given the available data.

Another problem is the fact that the data provided by countries to the Working Groups generally date back to one year at least. These data are used in the assessments, often with an estimate for the last year, and thus may pose problems in updating the analyses of data and recommendations.

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<sup>7</sup> Report of the CECAF Expert Group on stock assessment and review methods for stocks of small pelagics and demersal species undertaken in the CECAF region. FAO Fisheries and Aquaculture Report N° 1127 Rome, FAO. 2015. 143p

The viability of fisheries data is often called into question and the regular collection of data poses a problem in many countries. Moreover, the collection of biological data is almost non-existent for a large part of the region. Even more so when research surveys which could provide independent fishery information are not regular in the sub-region. It is thus difficult for coastal countries to undertake research surveys in a coordinated manner and to monitor the principal resources/stocks regularly.

Another problem concerns the identity of stocks analyzed and often the Working Group participants are obliged to make assumptions on the distribution area of the species.

### 3.1.2 Formulation of scientific opinions and management recommendations

The scientific opinions and recommendations for fisheries management are formulated based on assessment results and the analysis of results related to reference points (FAO, 2006):

- Target Reference Points: F0.1 and B0.1.
- Limit Reference Points: BMSY and FMSY,

Using this approach, stocks are grouped in three exploitation categories adopted by the Working Groups of CECAF's Scientific Sub-Committee as detailed below:

- **Not-fully exploited:** the current stock is 60% higher than the non-exploited stock, representing a stock that is above that which supports the maximum sustainable yield (MSY). In other words the stock is in a good state and fishing pressure can be increased without affecting sustainability. However, any increases should be considered within the context of the general situation of the environment,
- **Fully exploited:** the current stock is between 40% and 60% of the non-exploited stock, which is roughly the size of the stock which can produce a MSY. In other words, fishing is done within sustainable limits. Current fishing pressure seems sustainable and can be maintained,
- **Overexploited:** the current stock is 40% below the non-exploited stock, a stock which is less than that which sustains a MSY. Fishing is at an undesirable level both in terms of biomass and fishing mortality. Fishing pressure should be reduced to allow the stock to develop.

When the models give inconclusive results for a stock or that the stocks cannot be assessed due to limited data, the Working Groups make recommendations based on previous assessment results and available data trends.

In general, the WGs recommend that fishing effort or catches be reduced for overexploited stocks or maintained for the other stocks fully or not fully exploited. For stocks not fully exploited an increase in use (effort or catch) could also be proposed, indicating the importance of taking into account other factors such as the environment. The opinion is intended to provide advice for stock management to enable the different stocks to develop in a manner for each stock to be exploited at an optimum level.

The recommendations are made in a general manner to allow the countries to decide on the most appropriate management measures for implementing the recommendations.

It is to note that the Terms of Reference of the artisanal Working Group were modified in 2005 in order to do away with the collection of biological parameters which was logically incumbent on the other WGs responsible for assessment of stocks. Again, the terms of reference of this Working Group were reviewed in 2015 by the Scientific Sub-Committee to bring them up to date with current circumstances, by dealing with the emerging issues of the artisanal fishery and especially supporting the implementation of the voluntary guidelines aimed at ensuring the sustainability of the artisanal fishery. It should also be pointed out that since 2015 and the modification of its Terms of Reference, the artisanal Working Group can make recommendations for a better management of the artisanal sector, based on the activities undertaken and in collaboration with the Working Groups on the assessment of demersal species and small pelagic fish.

### 3.1.3 Formulation of scientific opinions and frequency of statutory meetings

The Working Groups report on their conclusions and recommendations to the SSC which should normally meet every two years, alternately with the Committee. However, since its establishment this has generally not been the case since the SSC meetings (indicated in blue in the Table below) have not been held regularly since 2007 mainly due to lack of funding. This time gap between the SCC meetings and the meetings of the Working Groups have a direct impact on the validation of the WG reports and their official publication, although provisional WG reports are generally made available directly after the meetings.

Table 1: Meetings of the Committee, SSC and WGs

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Comité	1		1		1		1		1		1			1				1	7
Sous-Comité Scientifique			1		1		1	1		1				1				1	7
GT-petits-pélagiques-Nord				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
GT-petits-pélagiques-Sud									1			1					1		3
GT-espèces-démersales-Nord						1	1			1			1			1			5
GT-espèces-démersales-Sud						1		1			1			1					4
GT-pêche-artisanale				1	1	1		1		1									5
																			46

In fact, if the SSC does not meet, there can be no scientific validation of the WG's deliberations, and thus the publication and final and formal distribution of the WG reports cannot be done. This delay in the final publication of the WG reports poses a problem. The assessment of resources and management advice have a "limited duration of relevance" or "expiry date" and should thus be distributed rapidly so they can be taken into consideration by the competent authorities. All the provisional reports of the Working Groups are shared with the scientists of the countries and can be used by the member countries to formulate management measures. The problems linked to the gap between the meetings of the Working Groups and the meeting of the SSC, to the translation and validation of reports by the SCC were discussed at the last Scientific Sub-Committee meeting. The SCC supported a recommendation to distribute a first version of the Working Groups' reports as early as possible after the meetings (even in a form with mixed languages) and to publish the final report in electronic form, even before it is discussed within the SSC by adding an exemption clause.

It is noted for instance that the last two SSC meetings were held every four years and the Working Group on small pelagics, sub-group North which has met every year since its

establishment had to wait each time 4 to 5 years before its deliberations and recommendations could be validated.

It is also observed that the four other WGs meet much less frequently, despite the fact that they meet every 2 to 3 years. This is mainly due to lack of funding.

To conclude, if it is considered that the data used for the assessments are at least a year old, in addition to the long period between the assessments and the review carried out by the SSC, the management recommendations are often outdated when the official reports become available.

### 3.2 Dissemination of reports

The deliberations of CECAF are published in an irregular manner but are mainly disseminated with much delay for various reasons as explained above.

The documents published by CECAF are disseminated on the website of the FAO Fisheries Department and when a search for CECAF publications is made on the FAO web site, there are 79 references for the publications and 44 concerning the meetings. However, we cannot find all the CECAF documents and especially the WG meetings. One has to log onto the CECAF website to access these documents. In order to facilitate the search for these documents, a summary is presented in Annex 1, with the list of all the reports of the meetings of the Committee, SSCs and WGs available and the internet link needed to gain access to them.

Since 1998, there are 38 reports that can be downloaded on the 46 last meetings held, of the Committee, Scientific Sub-Committee and Working Groups.

Table 2: Documents accessible on the internet

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Comité	1		1		1		1		1		1				1				7
Sous-comité Scientifique			1		1		1	1		1				1				1	7
GT-petits-pélagiques-Nord				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
GT-petits-pélagiques-Sud									1			1					1		2
GT-espèces-démersales-Nord						1	1			1			1				1		4
GT-espèces-démersales-Sud						1		1			1			1					3
GT-pêche-artisanale				1	1	1		1		1									0
																			38

It should also be pointed out that since 2006<sup>8</sup>, CECAF has made available to FIRMS<sup>9</sup> the reports of its Working Groups, so that they can be shared and also disseminated on its website and CECAF has published on the FIRMS website, 98 reports on the status of marine resources and 77 reports on the state of fisheries<sup>10</sup>.

<sup>8</sup> Study of the CECAF-FIRMS fisheries inventories. Information on updates and their use. CECAF/SCCVII/2015/8

<sup>9</sup> FIRMS (System for monitoring fish stocks and fisheries) aimed at facilitating access to a large range of quality information on the status and trends of marine fish stocks, fisheries and their management worldwide. Its global objective is to provide decision-makers with the information they need to draw up effective fisheries policies, in accordance with the Code of Conduct for Responsible Fisheries.

<sup>10</sup> CECAF in collaboration with FIRMS, initiated in 2007, fisheries inventories in its region. Currently, the resources and fisheries inventories of CECAF comprise 217 marine resources and 289 fisheries.

### **3.3 Historic review of the types of recommendations made by CECAF**

As indicated above, CECAF has made recommendations on the management of fisheries since its establishment but the implementation of these recommendations is done on a voluntary basis, since CECAF is a consultative body. Thus, the implementation of these management recommendations has been relatively unsatisfactory<sup>11</sup>. At its last meeting in 2012, the Committee noted that: “...*despite the relevance of the recommendations made by the SSC, the implementation of these recommendations by the decision-makers remains inadequate and in most cases little or no action is taken to give due consideration to the management recommendations*”.

In spite of that, it is worth recognizing the hard work done by CECAF since its establishment and the efforts made to formulate useful management recommendations which can be easily implemented. The formulation of these recommendations has largely improved since the 1970s.

#### **Technical recommendations on mesh size**

At the beginning of its work, CECAF made recommendations for the adoption of technical management measures such as specific recommendations on fishing gear. The first recommendations which can be viewed online and were formulated by the Committee date back to 1979, at the 6<sup>th</sup> meeting of the Committee<sup>12</sup>.

They relate to the limitation of mesh size for trawlers targeting the demersal stock. The CECAF member countries agreed at the sixth session (Agadir, 1979) to recommend a single mesh size of 60 mm minimum for the exploitation of all demersal species within the CECAF region.

In fact, in 1970 a Working Group on regulatory measures for demersal stocks was set up (FAO, 1970) and at the end of its first session in April 1970, it recommended to accept a mesh opening (in the pocket of trawlers) of 70 mm for depths below 10 m and 90 mm beyond mainly aimed at sparidae stocks on the shelf and at hakes on the continental slope.

Finally, the Committee at its 1986 meeting stressed that the traditional management measures such as the regulation of mesh size or the protection of juveniles should be conceived and implemented within the framework of a global limitation of fishing effort.

#### **Recommendations concerning the regulation of fishing effort**

Recommendations concerning the regulation of fishing effort were made in 1968 for lobsters, 1969 for sparidae, 1970 for hakes, 1971 for cephalopods and the small coastal pelagic fish. In 1975–76, the Working Groups indicated that fishing effort had reached or exceeded the level corresponding to the average maximum production for sardines from Morocco<sup>13</sup>. Measures to regulate fishing effort were thus suggested at the beginning of the

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<sup>11</sup>(CECAF/XV/2000/6, paragraphs 29 & 31 and foot notes on pages 4 & 22).

<sup>12</sup> Report of the sixth session of the Fishery Committee for the Eastern Central Atlantic (CECAF) Agadir, Morocco, 11-14 December 1979

<sup>13</sup> Poinard, F. and S. Garcia, 1984 Stock assessment and fisheries management in the CECAF region: A perspective view. Rome, FAO, 34 p, CECAF/ECAF Series 84/32

CECAF activities (FAO, 1969) and then “firmly recommended” in 1971 at the second session of the Working Group on regulatory measures for demersal stocks (FAO, 1971). Rapidly, indirect regulatory measures were to be recommended based on authorized total catches and quotas.

But due among others to the multi specific nature of fisheries, the problem of viability of data and implementation difficulties, it was impossible to apply these measures and the issue of regulating fishing effort remained unresolved.

The evolution of the law of the sea in the late 70s and early 80s facilitated fisheries management. Since then, each country has assumed responsibility for exercising effort over its resources and the limitation of fishing effort was undertaken “*within the framework of national management and development plans*” (first session of the Management Sub-Committee, 1977) in line with the objectives defined by each coastal State.

The problem of effort regulation was thus posed within the EEZs and between coastal states exploiting the same shared or migratory stocks. In the latter case, the Law of the Sea stipulates that the countries are obliged to collaborate to ensure optimal use of these resources.

### **Recommendations in the form of TAC**

In fact, concerning the shared stocks, the Committee in 1979 had identified 3 necessary stages in the process leading to agreements on schemes (or plans) for exploitation and management of shared stocks:

- The determination of total allowable catch (TAC) between the parties concerned,
- The allocation of these catches among the parties,
- The implementation by each country in its EEZ, of the management plan adopted.

At the same time, and in anticipation of these arrangements between several countries interested in the exploitation of the same stocks, the countries concerned were urged to reduce fishing effort in their respective fishing areas, targeting overexploited stocks, in proportion to the level of overexploitation indicated in the stock assessments.

Concerning the fully exploited or overexploited stocks, the Committee recommended that the development of a national fishery be supported by parallel measures to reduce catches of foreign fleets.

At its tenth meeting in 1986, the Committee stressed that for most stocks analyzed the problem is to control fishing effort and even to reduce it in the case of overexploited stocks. The Committee recommended at the same time:

- The search for equity between foreign fleets, development of national capacities and protection of the artisanal fishery sector, and

- To take or strengthen all necessary management measures to resolve the situation and ensure the conservation and optimum exploitation of the resources.

In addition, the Committee suggested that within the limits of national jurisdiction and for national stocks, direct regulation of fishing effort is more appropriate than using authorized catch volumes or total allowable catches (ACVs or TACs). However, in the case of shared stocks, the ACVs can be used but within the framework of global limitation of effort determined and approved by all countries.

#### **4. FISHERIES MANAGEMENT PLANS IN THE CEEAF REGION**

With the introduction of the new Law of the Sea and its implications as regards the responsibility of coastal States vis à vis the management of resources, the Committee at its tenth meeting in 1986, stressed that the absolute priority of management in the CEEAF region was the elaboration of national fisheries management and development plans and thus urged the countries in the region, which had not yet done so, to start drawing up national fisheries management and development plans.

Then at its sixteenth meeting in 2002, the Committee recognized the important role of management plans for the conservation and responsible management of resources. It accepted that the development of management plans based on an ecosystem approach to fisheries for the CEEAF region was a priority and requested the Secretariat to look for a means of organising workshops for the development of these plans in the region.

Since this request, many projects have come into being to support the management process, including some that are directly supporting the work of CEEAF while others are assisting the Working Groups. Examples of such projects include:

- “Assistance with the management and development of fisheries in the Eastern Central Atlantic region – CEEAF” financed by the Swedish International Development Cooperation Agency (SIDA), whose objective is, among others, to help in strengthening the participation of stakeholders in the formulation and implementation of fisheries management plans.
- The EAF-Nansen project which provides support to African countries for the adoption and implementation of an Ecosystem Approach in the management of their fisheries sector. One of the main objectives of this programme is thus to assist with the development of capacities in the various stages of the ecosystem approach to fisheries (EAF) leading to the development of an operational fisheries management plan consistent with the EAF.
- The Canary Current Large Marine Ecosystem (CCLME) and the Guinea Current Large Marine Ecosystem (GCLME) have also supported, through the implementation of their activities, initiatives for the development of a fisheries management plan in their respective regions.

In order to better assess the extent of consideration and implementation of CEEAF’s recommendations in fisheries management a survey questionnaire was developed and sent to all coastal member States (Annex 2).

In the first part, the information collected concerns fisheries management as per the development plan and in the second part, the questionnaire seeks to identify more specifically the needs of the countries in terms of useful information and scientific analyses for taking decisions with regard to fisheries management.

Out of the 22 coastal countries surveyed, 20<sup>14</sup> returned the completed questionnaire.

#### **4.1 Information on fisheries management**

##### **4.1.1 Regulatory framework and consultative bodies for fisheries management**

In the CECAF region, it seems to be accepted that sustainable fisheries management is a priority and that the development of management plans is recognized as the process to be implemented. There also seems to be a real political awareness since almost all the countries surveyed responded that the need to develop fisheries management plans appears in the sectoral policy documents.

However, although this political will exists, in reality, the conditions required for the elaboration and monitoring of the fisheries management process still do not exist.

The development of the fisheries management plans requires the establishment of a structure specifically dedicated to this function, from the preparation of plans, planning of their implementation and monitoring and assessment for modification of what constitutes a non definitive iterative process. Placed under the authority responsible for management, this structure may be multiform, whether a steering/monitoring committee, an advisory committee or a working group or something similar which should be composed of a multidisciplinary team made up of stakeholders, representatives of the fisheries administration, research department, civil society and fishing communities to eventually include all players in the value chain.

However, it is noted that not all countries have institutionalized advisory bodies to follow this process for the development and monitoring of fisheries management plans since only 10 countries responded that they have a consultative body specifically dedicated to fisheries management.

The Table below shows the various consultative bodies established at national level which are involved in the fisheries regulation process.

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<sup>14</sup> Angola, Benin, Cameroon, Democratic Republic of Congo, Congo, Côte d'Ivoire,, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, the EU, Liberia, Mauritania, Sao Tome and Principe, Senegal, Sierra Leone, Spain, and Togo.

Table 3: Consultative bodies for the development and monitoring of management processes in the CECAF region

	Consultative bodies for fisheries management	Structures established as part of the EAF-NANSEN Project
Angola	N/A	
Benin	National Fisheries Committee	National Working Group
Cameroon	N/A	National Working Group
Cape Verde	N/A	
DR Congo	Fisheries Advisory Committee	National Working Group
Congo	N/A	National Working Group
Côte d'Ivoire	N.A	National Working Group
Gabon	Management Monitoring Committee	National Working Group
Gambia	The Agriculture and Natural Resources Working Group (ANR_ Working Group)	
Ghana	N/A	National Working Group
Guinea	Commission chargée de l'élaboration et du suivi du plan d'aménagement et de gestion des pêcheries Committee responsible for the development and monitoring of fisheries management plan	
Guinea-Bissau	Conseil et commissions techniques	
Equatorial Guinea	N/A	
Liberia	N/A	National Working Group
Morocco	Conseil Supérieur pour la Sauvegarde et l'Exploitation du Patrimoine Halieutique (Higher Council for Protection and Exploitation of Fish Stocks)	National Working Group
Mauritania	Conseil Consultatif National pour l'Aménagement et le Développement des Pêcheries (CCNADP) (National Advisory Council for Fisheries Management and Development)	National Working Group
Nigeria	N/A	National Working Group
Sao Tome and Principe	N/A	
Senegal	Conseil National Consultatif des pêches Maritimes (Marine Fisheries National Advisory Council)	National Working Group
Sierra Leone	N/A	National Working Group
Togo	Comité Interministériel et Interprofessionnel Consultatif des Pêches (Interministerial and Interprofessional Fisheries Advisory Committee)	National Working Group

The structures may have different forms and mandates, as can be seen in the different examples below:

In the Republic of Congo, there is for example a Fisheries Advisory Committee established by Law n° 2-2000 of 1<sup>st</sup> February 2000, whose mission concerns the elaboration of fisheries management plans and consultations with all stakeholders.

In Gabon, it is by an order of the Minister responsible for Fisheries which defines the establishment and organization of the Management Monitoring Committee.

In Senegal there is a National Advisory Council for Marine Fisheries which also plays this role. In addition, national commissions to support the management of specific fisheries have been established as part of the development of management plans for specific fisheries. This is the case for the deep-water shrimp fishery and octopus fishery.

In Mauritania, it is the National Advisory Council for Fisheries Management and Development (CCNADP) which is the structure designed for the elaboration of fisheries management plans. There are also specific advisory boards created for the management of particular fisheries. This is the case for example of the Mullet Advisory Board (CCM) established by ministerial decree in 1990, for the formulation of the small pelagics management plan which started in May 2012 with the establishment of a National Consultative Committee for the sustainable management of small pelagics.

In Morocco, there is a Higher Council for Protection and Exploitation of Fish Stocks. Although the notion of a management plan is not specifically mentioned in the mandate of this structure, the objectives of this Council are, among others, to examine and provide advice on all issues relating to the protection and rational exploitation of fish stocks and to propose actions aimed at the sustainable development of these stocks. It is interesting to note in the case of Morocco that in addition to this national council there are regional councils for the protection and exploitation of fish stocks. In addition to the representatives of a broad panel of stakeholders including professional organisations, these regional councils are members of the national council and are consulted as part of the management process.

In Angola<sup>15</sup>, it's in 1990 that the Fisheries Administration Commission (CAP) was established for the purpose of improving the participation of the private sector and fishing communities in management decisions. The CAP is a forum for representatives of the public administration of fisheries and the fishing industry. This forum is an advisory body to the Minister and analyses issues dealing with the exploitation of resources and management recommendations and measures. The final decisions on the administrative matters relating to fisheries are taken by the fisheries authorities after consultation with this Forum. The CAP also deals with regional and international matters before decisions are taken.

It is also noted that in 14 countries, National Working Groups (GTN) were established from 2007, within the framework of the EAF-Nansen project activities to support the implementation of the ecosystem approach to fisheries (EAF) in coastal countries of Africa and the Canary Current Large Marine Ecosystem (CCLME) project in the case of Morocco, Mauritania, Gambia and Senegal. These structures are “tasked with *directing the process and ensuring the implementation of activities at national level and their adaptation to local conditions*”<sup>16</sup>.

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<sup>15</sup> Fishery and Aquaculture Country Profiles. Country Profile Fact Sheets. In: *FAO Fisheries and Aquaculture Department* [online]. Rome. Updated 2014.

<sup>16</sup> Progress made in the implementation of an ecosystem approach to fisheries in the CECAF region. Fishery Committee for the Eastern Central Atlantic. Scientific Sub-Committee. Seventh session Ténérife, Spain, 14–16 October 2015.

#### 4.1.2 Regulatory framework, structures for management of shared stocks

Although there are a number of national structures in the CECAF region dedicated to the management of national resources, one may ask what arrangements have been made regarding shared stocks.

In the sub-region, there are various structures or regulatory frameworks established or under study, to facilitate the management of shared stocks.

An interesting example is the Agency for Management and Cooperation between Senegal and Guinea-Bissau (AGC) which is a bilateral organisation created in 1993 for the joint exploitation of the Common Maritime Zone (CMZ<sup>17</sup>).

The AGC is competent in the mining, oil and fishery sectors and in the field of marine fishery, its role is to:

1. Ensure, alone or cooperation with other States or bodies, the assessment and management of fishery resources, the monitoring of the marine ecosystem, as well as the management of fisheries in the Common Maritime Zone (CMZ);
2. Exercise or authorize the exercise of the right to fish<sup>18</sup>, especially by the determination and implementation of conditions of access and exploitation of fishery resources in the CMZ;
3. Encourage the search for and exploitation of fishery resources within CMZ;
4. Ensure the marketing of fishery products caught in the CMZ;
5. Control the rational exploitation of resources of the CMZ;
6. Collaborate with Member States and with the competent international bodies to ensure within the CMZ:
  - security;
  - control of regulations and monitoring of activities relating to research and exploitation of resources;
  - protection of the marine environment;
  - prevention and control of pollution;
7. Work for the promotion and strengthening of cooperation between the two countries.

Another example is that of Mauritania where the mandate of national structures may be extended to consultation with other countries. Within the framework of the National Advisory Council for the Management and Development of Fisheries (CCNADP), a consultation with the fisheries authorities of other States in the sub-region is also planned

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<sup>17</sup> Maritime zone between the Azimuths 268° and 220° traced from Cape Roxo, intersection between the Senegal / Guinea-Bissau land border and the coast

<sup>18</sup> However, the AGC no longer intervenes in issues regarding fishing rights. Indeed, in 1996 and 1997, the governments of Senegal and Guinea-Bissau respectively formalized the transfer of their rights and obligations with regard to the management and exploitation of fishery resources of the AGC. In 1997, the AGC signed a Memorandum of Understanding ceding the right to management and exploitation of fishery resources to the Member States, defining the modalities and conditions for retrocession. Access to the fishery resources of the CMZ is currently granted to fishing vessels with valid fishing licences, delivered by either Member State. The exercise of the right to fish within the CMZ under the jurisdiction of the agency is done in accordance with legislative arrangements and regulations in force in Guinea Bissau.

during the establishment of plans for the management of shared stocks notably to ensure harmonization of national fisheries development and management plans. This is true for the mullet and red drum fisheries management plan in Mauritania and Senegal which provides for its implementation at local, national and bilateral levels:

- At local level, the typical structure is the Local Fisheries Advisory Committee (CCL) which comprises, besides the representatives of professionals (artisanal fishers, fish wholesalers, processors, exporters and civil society involved in fisheries management), representatives of the administration, research institutions and other local elected representatives;
- At national level the Technical Committee of the Mullet, Red Drum and Bluefish National Consultative Committee (CNCMCT) ensures the consolidation of management measures taken at the CCL level. This Technical Committee is called to mainly discuss the monitoring and implementation of the PAP for mullet; make recommendations for the annual plan of action or eventually for the review of the PAP for mullet as part of concerted management to ensure, in particular, the harmonization of annual fishery plans in the defined areas, their validation and the proposal of an annual fisheries plan to the Minister responsible for fisheries with a view to its approval;
- In this context a consultative framework between Senegal and Mauritania for the management of mullet, red drum and bluefish has been established within the SRFC by the CCLME project. This is the Preliminary Plurinational Commission (ccp) which was established on 28 April 2015 by the SRFC and is anchored within the Regional Consultative Committee.

Finally, there are also bilateral agreements or conventions established between the countries for the purpose of fisheries management. There is the example of the convention between the Government of the Republic of Senegal and the Government of the Islamic Republic of Mauritania in the field of Marine Fisheries, established since 1999 concerning the mullet and sardinella fisheries in Mauritania and Senegal.

There are also a large number of bilateral agreements in West Africa on fisheries management which have been listed by Kelleher (Annex 2), which can also provide a regulatory framework for consultation in the management of shared stocks.

#### **4.1.3 Fisheries management plans**

As indicated in the Guidelines for Fisheries Management<sup>19</sup>, the definition of a fisheries management plan (FMP) is a basic element of management, and should consist of a formal or informal arrangement between the competent fisheries authority and stakeholders. The plan should describe the fisheries context, including all the main actors (or stakeholders), the agreed objectives (comprising the economic, social and ecological aspects of fisheries) and the specific rules and regulations that are applicable. The FMP is therefore a management tool which must be consistent with the country's fisheries policy. It provides guidance based on operational management goals and objectives. FAO indicates that the national fisheries policy, if it exists, should define the range of minimum obligations that a fisheries management plan should envisage and determine the broad

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<sup>19</sup> FAO Fisheries Department. Fisheries Management. 2. Ecosystem Approach to Fisheries. FAO Technical Guidelines for Responsible Fisheries. No. 4, Suppl. 2. Rome, FAO. 2003. 120 p.

lines of the type of information needed to be included in a FMP.

In response to the concerns and problems relating to the fisheries sector, but also on the basis of developments in the environment, FAO (being a United Nations agency specialized in food, agriculture and fisheries) launched a process to broaden the paradigm of fisheries management in 1992. The Code of Conduct for Responsible Fisheries (CCRF), non binding, which resulted from it, was adopted in 1995. Its key principles are focused on: the need to manage the ecosystems in order to preserve them; a sustainable exploitation which deals not only with the target species but also non target species and their ecosystems; taking responsible measures in the absence of scientific evidence and decisions based on the best scientific evidence; taking account of traditional knowledge (taking traditional knowledge into account); as well as transparency and caution in decision-making. Aware of the difficulties encountered in integrating the above principles in actual fisheries management, it was determined that it was necessary to initiate processes and activities to facilitate their implementation. The Reykjavik Conference on Responsible Fisheries in Marine Ecosystems (2001) can be considered as an attempt to build a bridge between commitments in the sustainable use of resources that the countries had made over the years and their effective implementation within the fisheries sector. This Conference led in 2003 to the first FAO guidelines for the application of the EAF (FAO, 2003), which were followed by a simplified version (FAO, 2005) and a toolbox for the implementation of the EAF (FAO, 2012).

The EAF is envisaged as the practical approach to the implementation of the CCRF. In the CECAF region, the fisheries management process by way of a management plan is relatively recent and a wide disparity is observed among the countries, both in the number and type of management plans.

Table 4: Fisheries development and management plan and state of implementation\*

<b>Country</b>	<b>Name of plan</b>	<b>Status</b>	<b>Type of plan</b>
Angola	N/A		
Benin	Marine fisheries management plan	Finalized and implemented	Sectoral plan
Benin	Fisheries management plan using the beach seine	Finalized and awaiting implementation	Fishing gear plan
Cape Verde	Fisheries management plan (2004-2014)	Finalized and implemented	Sectoral plan
Cameroon	Management plan for the industrial shrimp fishery in Cameroon	Finalized	Species and fisheries plan
Congo	Management plan for shrimp trawling fisheries	Under preparation	Species or fisheries plan
Côte d'Ivoire	Management plan for the coastal beach seine fishery in Côte d'Ivoire		Fishing gear plan
Gabon	Management plan for the shrimp industrial fishery	Finalized awaiting implementation	Species or fishery plan

Gabon	Management plans for community fishery areas for artisanal fisheries	Under preparation	Spatial plan
Gambia	Cockle and Oyster Co-Management Plan for the Tanbi Special Management Area	Finalized and implemented	Species or fishery plan
Gambia	Fishery Co-Management Plan for The Gambia Sole Complex	Finalized and implemented	Species or fishery plan
Gambia	Small Pelagic Management Plan	Finalized and implemented	Species or fishery plan
Ghana	A national Policy for the management of the marine fishery sector. 2015 - 2019	Finalized and implemented	Sectoral plan
Ghana	Management plan for beach seine fishery in Ghana	Finalized awaiting implementation	Fishing gear plan
Guinea	Fisheries development and management plan for 2016	Finalized and implemented	Sectoral plan
Equatorial Guinea	N/A		
Guinea-Bissau	Annual fisheries management plan	Finalized and implemented	Sectoral plan
Liberia	Plan for the artisanal fishery at sea	Under preparation	Sectoral plan
Liberia	Management framework for fisheries management units of Liberia	Finalized and awaiting implementation	Sectoral plan
Morocco	Management plan for the octopus fishery	Finalized and implemented	Species or fishery plan
Morocco	Small pelagic management plan	Finalized and implemented	Species or fishery plan
Morocco	Shrimp fishery management plan	Finalized and implemented	Species or fishery plan
Morocco	Shark fishery management plan Plan d'aménagement de la pêche des requins	Finalized and implemented	Species or fishery plan
Morocco	Management plan for swordfish in the Mediterranean and the Atlantic	Under preparation	Species or fishery plan
Morocco	Management plan for the blue fin tuna fishery	Finalized and implemented	Species or fishery plan
Morocco	Algae management plan	Finalized and implemented	Species or fishery
Morocco	Coral development plan	Finalized and implemented	Species or fishery plan
Mauritania	Management plan for the octopus fishery	Finalized and implemented	Species or fishery plan

Mauritania	Management plan for the shrimp fishery	Finalized and awaiting validation	Species or fishery plan
Mauritania	Management plan for the mullet fishery	Finalized and awaiting validation	Species or fishery plan
Mauritania	Development plan for the red drum fishery	Under preparation	Species or fishery plan
Mauritania	Small pelagic management plan	Finalized and awaiting implementation	Species or fishery plan
Mauritania	Management Plan for the Development of the Artisanal and Coastal Fishery (PADPAC)	Under review	Sectoral plan
Nigeria	Management plan for the shrimp trawling fishery	Under preparation	Species or fishery plan
DR Congo	Management plan for the shrimp trawling fishery	Under preparation	Species or fishery plan
DR Congo	Sardinella management plan	Finalized and awaiting implementation	Species or fishery plan
DR Congo	Lake Tangayika Management Plan	Finalized and implemented	Spatial plan
Sao Tome	Fisheries master plan	Finalized and awaiting implementation	Sectoral plan
Senegal	Management plan for the deep sea shrimp fishery	Finalized and implemented	Species or fishery plan
Senegal	Management plan for the octopus fishery in Senegal	Under preparation	Species or fishery plan
Senegal	Small pelagics management plan	Finalized and awaiting validation	Species or fishery plan
Senegal	Management plan for the coastal shrimp fishery	Finalized and awaiting validation	Species or fishery plan
Senegal	Management plan for the cymbium fishery	Finalized and awaiting validation	Species or fishery plan
Senegal	Mullet management plan	Under preparation	Species or fishery plan
Senegal	Management plan for the red drum fishery	Under preparation	Species or fishery plan
Sierra Leone	Shrimp management plan	Under preparation	Species or fishery plan
Sierra Leone	Demersal fisheries management plan	At design stage	Species or fishery plan
Sierra Leone	Pelagic fisheries management plan	At design stage	Species or fishery plan
Sierra Leone	Sea cucumber management plan	Under preparation	Species or fishery plan

Sierra Leone	Marine small scale fisheries management plan	Under preparation	Sectoral plan
Sierra Leone	Sharks and rays management plan	Finalized and implemented	Species or fishery plan
Togo	Beach seine management plan	Finalized and awaiting implementation	Fishing gear plan

\* Information in this table was obtained from the questionnaire and from other sources.

The plans have been grouped into 4 different types based on their scope and name:

- *Sectoral or sub-sectoral plans*, which are plans designed for the entire sector (fisheries sector) or sub-sector (artisanal fisheries);
- *Species or fishery plans* are plans developed for the management of a particular species or fisheries (small pelagics, octopus, deep-water shrimp fisheries);
- *Fishing gear plans* concern the particular fishing gear (beach seine development plan);
- *Spatial plans* are developed to understand the management of fisheries in a particular geographic area (management plans for community fishery areas for the artisanal fishery).

All these management initiatives are at various stages, since out of a total of 50 plans identified, two are in planning stage, 14 are under preparation, four have been finalized and awaiting validation, eight are finalized and awaiting implementation, 20 are in the implementation phase and only one plan is being reviewed.

There are also plans under preparation for management of shared resources:

Table 5: Initiatives for management of shared resources

Mauritania Senegal	Mullet and red drum management plan in Mauritania and Senegal	Under preparation
Morocco, Mauritania, Gambia and Senegal	Sub-regional management framework to support the coordinated management of small pelagics	Under preparation
Angola, Congo, DR Congo and Gabon	Regional fisheries management plan for shared sardinella stocks in the South Gulf of Guinea	Under preparation

When countries are questioned to know if the data and scientific recommendations of CECAF have been helpful in preparing the diagnosis for the preparation of the management plan, the majority have replied that they have been helpful, very helpful indeed. However, for 20% of the countries, the data or information provided by CECAF have not been helpful for the diagnosis, or for the initial and preparatory phases of the management process.

Similarly, the vast majority of countries surveyed consider that the CECAF recommendations have been useful for the formulation of management measures

identified in management plans or for the formulation of management measures in general.

**4.2 Needs of countries as regards the scientific information and analyses useful for taking decisions on fishery management.**

In order to best identify the needs of countries with regards to the scientific information and analysis needed for the preparation and implementation of fisheries management plans, we asked what their needs were concerning the state of resources, the situation of industries and fleets dependent thereon, biological studies, environmental studies and risk assessment, socio-economic studies, other information on fisheries, the marine sector, and finally the particular case of the artisanal fishery. For each of these specific fishery-related themes we asked how often CECAF should provide this information and also in what form it should be provided. The results of this survey are presented in the Table below.

Table 6: Needs of countries regarding information and scientific analyses

Type of information	Yes	No	No opinion
State of resources (assessments)	89%		11%
Situation of industries and fleets dependent thereon	72%	17%	11%
Biological studies	89%		11%
Environmental studies and risk assessment	89%		11%
Socio-economic studies	83%	6%	11%
Other information on fisheries and marine sector	66%	17%	17%
Specific case of artisanal fishery	77%	6%	17%

It is more than clear that the needs of the countries for scientific information and analysis fairly reflect the information needed for the preparation of fishery management plans. Information on the state of resources and stock assessments, biological studies, environmental studies and risk assessment remains a top priority with about 90 % of positive responses.

Next, the countries are in great need of socio-economic information and finally, to a lesser extent, the countries expressed their needs concerning the artisanal fishery in particular, the situation of industries, fishing fleets and finally on other information relating to marine fisheries.

The vast majority of countries consider that all this information should be disseminated and transmitted at least once a year where possible, or at least once every two years.

Concerning the form of these reports it seems that the countries would like to have summarized versions of studies and assessments carried out by CECAF. Moreover, while it seems that the publication of these reports in hard copy is still useful, most of the countries expressed the need to receive the reports by email.

On the current management recommendations and recommendations on scientific research, the majority of countries believe that they are indispensable for fisheries management but that their implementation and application is very difficult for various reasons such as:

- Lack of political will;
- Lack of information on the recommendations and on the challenges of their implementation;
- Problems of understanding the recommendations;
- Recommendations often old and outdated;
- Insufficient human, technical and financial resources.

Likely solutions proposed by the countries to facilitate the consideration and implementation of CECAF's recommendations are numerous.

- Although the CECAF recommendations are not binding, every effort must be made to disseminate these recommendations to stakeholders and particularly to the fisheries administrations including the Fisheries Minister. Particular attention should be paid to raising awareness about the recommendations and the implications of their non adoption. The resource users should also be made aware of the recommendations and the importance of their implementation;
- Communication and the extensive dissemination of the recommendations is also an important aspect stressed by the countries which generally regret that the recommendations are not easily accessible and available for consultation by all;
- The capacity building of administrative and research staff is an aspect which was also emphasized and which would promote a better understanding and appropriation of the CECAF recommendations by the beneficiaries;
- Finally, the regular holding of meetings of the Working Groups and of sessions of the sub-committee and the committee was considered indispensable to ensure the updating of scientific information and management recommendations.

Concerning the potential role of CECAF in providing advice for monitoring, control and surveillance, the countries expressed a greater need for training of personnel, equipment and funding.

## 5. CONCLUSIONS

For almost half a century, CECAF has contributed to the improvement of the scientific knowledge and the sustainable management of fishery resources, by formulating regulatory measures and recommendations for their implementation. Despite the fact that CECAF is a consultative body established under Article VI.2, and that its recommendations are not binding on member countries, the work done is used in the management process and notably in the diagnostic phase for the preparation of the management plan, but also for the formulation of fishery management measures by the member countries.

However, in recent years, making use of CECAF's work and consideration or implementation of the Committee's recommendations seem to have been inadequate. Certainly, there have been some delays in the publication of results due to the irregular holding of meetings of the various bodies responsible for validation of the results but that does not appear to be the main reason. In fact, even if the results are not published they

are still available to the scientists who participated in the meetings. But in this case, efforts should be made to disseminate more widely the work done by CECAF, its results and recommendations. An effort should also be made to facilitate access to CECAF documents by publishing all the documents on the same website.

Moreover, through efforts made by FAO, CECAF and the different projects which are associated with the work of CECAF (e.g. EAF-Nansen, CCLME) as well as other projects and types of cooperation (e.g. between research institutes), the fisheries management process is developing gradually, through the implementation of the principles of the CCRF and EAF. In spite of a regulatory framework that is not always appropriate, recent developments have been observed in the fisheries management process by adoption of a fisheries management plan in almost all the countries in the region, often on the initiative and with the support of the different projects. However, this process is hampered by a lack of data or competence. Indeed, since its establishment CECAF has focused on the biological aspect of fisheries and conducts assessments on a large number of stocks making it possible to have a more precise idea of the state of resources. Unfortunately, apart from a few analyses provided in the past by the artisanal Working Group, it provides almost no information or social, economic or environmental analysis which would help to include these considerations in the formulation of recommendations. Thus, there is a vast imbalance in terms of information, and the gaps to be filled in these areas are significant and greatly impede the management process.

Finally, it also seems important to raise awareness and develop the capacities of managers and resource users on the need for fisheries management at national and sub-regional levels in order to facilitate the appropriation of the recommendations and work of CECAF, their use and their implementation.

## **6. REQUESTS TO THE COMMITTEE**

The Committee is requested to:

- Examine the results of the work presented in this document;
- Ascertain the possibility of broadening its work and analyses to cover all areas useful for the preparation of management plans based on the ecosystem approach to fisheries and especially the social, economic and environmental aspects;
- Consider the importance of facilitating access to CECAF documents by publishing all the documents on the same website, in order to facilitate their use and dissemination;
- Monitor and support the development and implementation of fisheries development and management plans;
- Consider the importance of disseminating more extensively the work of CECAF, its results and recommendations;
- Encourage efforts to develop the capacities of managers and resource users in the field of EAF at national and sub-regional levels in order to facilitate the appropriation of the recommendations and work of CECAF, their use and their implementation.

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- FAO, 2015.** Rapport de la réunion du groupe d'experts du COPACE sur les méthodes d'évaluation et de revue des stocks de petits pélagiques et d'espèces démersales réalisées dans la zone COPACE, 24-26 juin 2015. *FAO Rapport sur les pêches et l'aquaculture* n° 1127 Rome, FAO. 2015. 143p.
- Fischer, J., Erikstein, K., D'Offay, B., Guggisberg, S. & Barone, M. 2012.** Review of the Implementation of the International Plan of Action for the Conservation and Management of Sharks. FAO Fisheries and Aquaculture Circular No. 1076. Rome, FAO. 120 pp.
- Gulland, J.A., 1979.** Towards the management of the resources of the CECAF region. Rome, FAO, 19p., CECAF/ECAF Series/79/12 (En).
- Owen, D. 2001.** Aspects légaux et institutionnel de l'aménagement des stocks partagés : cas des poissons pélagiques côtiers de la région Nord-Ouest africaine.
- Poinsard, F. and S. Garcia, 1984.** Stock assessment and fisheries management in the CECAF region: A perspective view. Rome, FAO, 34 p, CECAF/ECAF Series 84/32 (En)
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## Appendix 1: List and internet links of reports of CECAF meetings (Committee, SSC and WG)

Committee reports			
Year	Place	Title	Report No./link
1969	Accra, Ghana	Report of the first session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 24-28 March, 1969	FAO Fisheries Report No. 69 <i>Not available online</i>
1971	Casablanca, Morocco	Report of the second session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 13-19 May, 1971	FAO Fisheries Report No. 107 <i>Not available online</i>
1972	Canary Islands, Spain	Report of the third session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 11-15 December, 1972	FAO Fisheries Report No. 132 <i>Not available online</i>
1973	Rome, Italy	Report of the fourth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 8-11 October, 1974	FAO Fisheries Report No. 151 <i>Not available online</i>
1977	Lomé, Togo	Report of the fifth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 7-11 March, 1977	FAO Fisheries Report No. 195 <i>Not available online</i>
1979	Agadir, Morocco	Report of the sixth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 11-14 December, 1979	FAO Fisheries Report No. 229 <i>Not available online</i>
1981	Lagos, Nigeria	Report of the seventh session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 10-14 April, 1981	FAO Fisheries Report No. 255 <i>Not available online</i>
1982	Lomé, Togo	Report of the eighth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 10-14 September, 1982	FAO Fisheries Report No. 282 <i>Not available online</i>
1984	Banjul, The Gambia	Report of the ninth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 15-18 October, 1984	FAO Fisheries Report No. 322 <i>Not available online</i>
1986	Tenerife, Spain	Report of the tenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 24-27 November, 1986	FAO Fisheries Report No. 391 <i>Not available online</i>
1988	Douala, Cameroon	Report of the eleventh session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 7-9 December, 1988	FAO Fisheries Report No. 420 <i>Not available online</i>
1992	Accra, Ghana	Report of the twelfth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 27 April-1 May, 1992	FAO Fisheries Report No. 469 <i>Not available online</i>
1995	Dakar, Senegal	Report of the thirteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 18-20 December 1995	FAO Fisheries Report No. 534 <i>Not available online</i>
1998	Nouakchott, Mauritania	Report of the fourteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 6-9 September, 1998	FAO Fisheries Report No. 591 <a href="http://www.fao.org/fishery/nems/11186/en">http://www.fao.org/fishery/nems/11186/en</a>
2000	Abuja, Nigeria	Report of the fifteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 1-3 November, 2000	FAO Fisheries Report No. 642 <a href="http://www.fao.org/fishery/nems/11229/en">http://www.fao.org/fishery/nems/11229/en</a>
2002	Tenerife, Spain	Report of the sixteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 22-24 September, 2002	FAO Fisheries Report No. 693 <a href="http://www.fao.org/fishery/nems/13148/en">http://www.fao.org/fishery/nems/13148/en</a>
2004	Dakar, Senegal	Report of the seventeenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 24-27 May, 2004	FAO Fisheries Report No. 754 <a href="http://www.fao.org/fishery/nems/14584/en">http://www.fao.org/fishery/nems/14584/en</a>
2006	Douala, Cameroon	Report of the eighteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 3-5 October, 2006	FAO Fisheries Report No. 828 <a href="http://www.fao.org/fishery/nems/32028/en">http://www.fao.org/fishery/nems/32028/en</a>
2008	Cotonou, Benin	Report of the nineteenth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 4-6 November, 2008	FAO Fisheries Report No. 893 <a href="http://www.fao.org/fishery/nems/36396/en">http://www.fao.org/fishery/nems/36396/en</a>

2012	Rabat, Morocco	Report of the twentieth session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 14-16 March, 2012	<a href="http://www.fao.org/3/a-bl016b.pdf">http://www.fao.org/3/a-bl016b.pdf</a>
2016	Dakar, Senegal	Report of the twenty-first session of the Fishery Committee for the Eastern Central Atlantic (CECAF), 20-22 April, 2016	<i>Soon to take place</i>

<b>Scientific Sub-Committee reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No./link</b>
2000	Abuja, Nigeria	Report of the first session of the Scientific Sub-Committee, 30-31 October, 2000	FAO Fisheries Report No. 641 <a href="http://www.fao.org/3/a-x9682b.pdf">http://www.fao.org/3/a-x9682b.pdf</a>
2002	Tenerife, Spain	Report of the second session of the Scientific Sub-Committee, 23-25 September, 2002	FAO Fisheries Report No. 705 <a href="http://www.fao.org/docrep/006/Y4691B/y4691b01.htm">http://www.fao.org/docrep/006/Y4691B/y4691b01.htm</a>
2004	Lomé, Togo	Report of the third session of the Scientific Sub-Committee, 24-26 February, 2004	FAO Fisheries Report No. 750 <a href="http://www.fao.org/3/a-y5567b.pdf">http://www.fao.org/3/a-y5567b.pdf</a>
2005	Accra, Ghana	Report of the fourth session of the Scientific Sub-Committee, 24-26 October, 2005	FAO Fisheries Report No. 800 <a href="http://www.fao.org/3/a-a0650b.pdf">http://www.fao.org/3/a-a0650b.pdf</a>
2007	Casablanca, Morocco	Report of the fifth session of the Scientific Sub-Committee, 4-6 December, 2007	FAO Fisheries Report No. 869 <a href="http://www.fao.org/3/a-i0225b/">http://www.fao.org/3/a-i0225b/</a>
2011	Accra, Ghana	Report of the sixth session of the Scientific Sub-Committee, 7-9 September, 2011	FAO Fisheries Report No. 985 <a href="http://www.fao.org/docrep/015/i2443b/i2443b.pdf">http://www.fao.org/docrep/015/i2443b/i2443b.pdf</a>
2015	Tenerife, Spain	Report of the seventh session of the Scientific Sub-Committee, 14-16 October, 2015	FAO Fisheries Report No. 1128 <a href="http://www.fao.org/3/a-i5301b.pdf">http://www.fao.org/3/a-i5301b.pdf</a>
2017	Côte d'Ivoire	Report of the eighth session of the Scientific Sub-Committee, TBD	

<b>Small Pelagic NORTH Working Group Reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No./link</b>
2001	Nouadhibou-Mauritania.	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa 24-31 March 2001	<a href="http://www.fao.org/DOCREP/005/Y2668B/Y2668B00.htm">http://www.fao.org/DOCREP/005/Y2668B/Y2668B00.htm</a> <i>FAO Fisheries Report No. 657</i>
2002	Banjul, The Gambia	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 4 - 12 April 2002	<a href="http://www.fao.org/docrep/005/y4427b/y4427b01.htm">http://www.fao.org/docrep/005/y4427b/y4427b01.htm</a> <i>FAO Fisheries Report No. 686</i>
2003	Agadir, Morocco	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 31 March–10 April 2003	<a href="ftp://ftp.fao.org/docrep/fao/007/y5081b/y5081b00.pdf">ftp://ftp.fao.org/docrep/fao/007/y5081b/y5081b00.pdf</a> <i>FAO Fisheries Report No. 723</i>
2004	Saly, Senegal	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa., 17-27 March 2004.	<a href="http://www.fao.org/docrep/007/y5823b/y5823b00.htm">http://www.fao.org/docrep/007/y5823b/y5823b00.htm</a> <i>FAO Fisheries Report No. 762</i>
2005	Nouadhibou, Mauritania,	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 26 April–5 May 2005.	<a href="http://www.fao.org/3/a-a0828b/a0828b01.pdf">http://www.fao.org/3/a-a0828b/a0828b01.pdf</a> <i>FAO Fisheries Report No. 785</i>
2006	Banjul, Gambia	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 2–11 May 2006.	<a href="http://www.fao.org/docrep/009/a0827b/a0827b00.htm">http://www.fao.org/docrep/009/a0827b/a0827b00.htm</a> <i>FAO Fisheries Report No. 811.</i>
2007	Agadir, Morocco	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa., 17–26 April 2007.	<a href="http://www.fao.org/docrep/010/a1485b/a1485b00.htm">http://www.fao.org/docrep/010/a1485b/a1485b00.htm</a> <i>FAO Fisheries Report No. 849.</i>
2008	Saly, Senegal	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 6–15 May 2008.	<a href="http://www.fao.org/docrep/011/i0467b/i0467b00.htm">http://www.fao.org/docrep/011/i0467b/i0467b00.htm</a> <i>FAO Fisheries Report No. 882</i>
2009	Nouakchott, Mauritania	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. Nouakchott, Mauritania, 21–30 April 2009.	<a href="http://www.fao.org/docrep/014/i2237b/i2237b.pdf">http://www.fao.org/docrep/014/i2237b/i2237b.pdf</a> <i>FAO Fisheries Report No. 965</i>
2010	Banjul, the Gambia,	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 18-22 May 2010.	<a href="http://www.fao.org/docrep/015/i2236b/i2236b.pdf">http://www.fao.org/docrep/015/i2236b/i2236b.pdf</a> <i>FAO Fisheries and Aquaculture Report No. 975</i>

2011	Casablanca, Morocco,	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 24–28 May 2011.	<a href="http://www.fao.org/docrep/017/i3135b/i3135b.pdf">http://www.fao.org/docrep/017/i3135b/i3135b.pdf</a> FAO Fisheries and Aquaculture Report No. 1026
2012	Dakar, Senegal	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 21–25 May 2012.	<a href="http://www.fao.org/docrep/019/i3346b/i3346b.pdf">http://www.fao.org/docrep/019/i3346b/i3346b.pdf</a> FAO Fisheries and Aquaculture Report No. 1036
2013	Nouadhibou, Mauritania	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 10 -15 June 2013	FAO Fisheries and Aquaculture Report No. 1115 <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref2b.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref2b.pdf</a>
2014	Banjul, The Gambia	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 19 - 24 May 2014	FAO Fisheries and Aquaculture Report No. 1116 <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref3b.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref3b.pdf</a>
2015	Casablanca, Morocco	Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. 20 – 25 July 2015	FAO Fisheries and Aquaculture Report No. 1122 <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref8e.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref8e.pdf</a>

<b>Small Pelagic SOUTH Working Group Reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No.</b>
2006	Limbé, Cameroon	Report of the FAO/CECAF Working Group on the Assessment of Small Pelagic Fish – Subgroup South Limbé, Cameroon, 25 September–1 October 2006	<i>Not available online</i>
2009	Accra, Ghana	Report of the FAO/CECAF Working Group on the Assessment of Small Pelagic Fish – Subgroup South Accra, Ghana, 19–28 October 2009	<a href="http://www.fao.org/docrep/018/i2909b/i2909b.pdf">http://www.fao.org/docrep/018/i2909b/i2909b.pdf</a> CECAF/ECAF Series No. 12/74
2014	Pointe Noire, Congo	Report of the FAO/CECAF Working Group on the Assessment of Small Pelagic Fish – Subgroup South. Pointe Noire, Congo, 17–23 March 2014	CECAF/ECAF Series No. 15/75 <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref5b.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref5b.pdf</a>

<b>Demersal NORTH and SOUTH Working Group Report</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No./link</b>
2003	Conakry, Guinea	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources Conakry, Guinea, 19–29 September 2003	<a href="http://www.fao.org/docrep/009/a0536b/a0536b00.htm">http://www.fao.org/docrep/009/a0536b/a0536b00.htm</a> CECAF/ECAF Series No. 06/67

<b>Demersal NORTH Working Group Reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No./link</b>
2004	Saly, Senegal	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources - Subgroup North. Saly, Senegal, 14-23 September 2004	<a href="http://www.fao.org/3/a-a0831b.pdf">http://www.fao.org/3/a-a0831b.pdf</a> CECAF/ECAF Series No. 06/68
2007	Banjul, The Gambia	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup North Banjul, the Gambia, 6–14 November 2007	<a href="http://www.fao.org/docrep/015/i2545b/i2545b00.pdf">http://www.fao.org/docrep/015/i2545b/i2545b00.pdf</a> CECAF/ECAF Series No. 10/71
2010	Agadir, Morocco	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup North Agadir, Morocco, 8–17 February 2010	FAO Fisheries and Aquaculture Report No. 11/72
2013	Fuengirola, Spain	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup North Fuengirola, Spain, 18-27 November 2013	CECAF/ECAF Series No. 15/77 <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref7b.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref7b.pdf</a>

<b>Demersal SOUTH Working Group Reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No.</b>
2005	Cotonou, Benin	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup South, Cotonou, Benin, 13–21 September 2005	<i>Not available online</i>
2008	Freetown, Sierra Leone	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup South Freetown, Sierra Leone, 9–18 October 2008	<a href="http://www.fao.org/docrep/015/an155b/an155b.pdf">http://www.fao.org/docrep/015/an155b/an155b.pdf</a> <i>CECAF/ECAF Series No. 11/73</i>
2011	Accra, Ghana	Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup South Accra, Ghana, from 15-24 November 2011	<i>CECAF/ECAF Series No. 15/76</i> <a href="ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref6b.pdf">ftp://ftp.fao.org/FI/DOCUMENT/cecaf/Cecaf_SSC7/Ref6b.pdf</a>

<b>Artisanal Working Group Reports</b>			
<b>Year</b>	<b>Place</b>	<b>Title</b>	<b>Report No.</b>
2007	Douala, Cameroon	Report of the FAO/CECAF Working Group on Artisanal Fisheries, Douala, Cameroon, 17-19 September, 2007	<i>Not available online</i>

## Appendix 2: Survey questionnaire



### **Fisheries management in the CEEAF region: state of the development and implementation of fisheries management plans and uptake of CEEAF recommendations**

#### **SURVEY**

Thank you for agreeing to complete this survey, we will appreciate it if you would please answer all questions as precisely as possible.

In order to ensure the most precise responses to the questions, we are also attaching a PDF copy of the survey and we recommend you read through this first and prepare your answers prior to completing the online form. The online survey should take no more than 30 minutes to complete. There are in total 12 questions to be answered. Please be sure to submit the survey at the end so that your answers can be recorded. We ask you kindly to complete it as soon as possible and submit it by the **8<sup>th</sup> of April**.

This survey is designed to gather information on the fisheries management plans of CEEAF member countries in preparation for the 21<sup>st</sup> Commission meeting, to be held in Dakar, Senegal, 20-22 April 2016.

Please access the survey with this link and follow the instructions:

<https://jlfuller88.typeform.com/to/AlcMkl>

*If you have any questions, please do not hesitate to contact Merete Tandstad (Merete.Tandstad@fao.org) or Jessica Fuller (Jessica.Fuller@fao.org).*

## CECAF SURVEY

### 1. Information about the respondent:

- a. Family name
- b. First name
- c. Contact information
- d. Country
- e. Institution
- f. Professional title

### Information on the fisheries management process in your country:

2. Is the fisheries management and the need to develop fisheries management plans referred to in other sectoral policy documents (e.g. Fisheries Strategy...)? YES / NO
3. Is there an institutional consultative framework in place for the development and monitoring of these management plans (e.g. interdisciplinary group)? YES / NO
4. If the response to question 3 is **YES**, describe it in a few words. If the response to question 3 is **NO**, indicate **N/A**:
5. Are there any existing fisheries management plans developed, being implemented or under development in your country? YES / NO
6. If the response to question 5 is **YES**, please respond to questions **6a through 6i**. If the response to question 5 is **NO**, please indicate **N/A** for questions **6a through 6i**:
  - 6.a. Plan name(s)
  - 6.b. What was the background for initiating the development of the management plan? Respond for each management plan identified in question 5
  - 6.c. Have the CECAF recommendations contributed to the initiation of this process? Respond **YES or NO** for each management plan identified in question 5, and if **YES** indicate in your own words how CECAF recommendations have contributed
  - 6.d. For each management plan identified in question 5, describe the status of each plan
    - i. In planning
    - ii. In development
    - iii. Finalized but not yet being implemented
    - iv. Finalized and under implementation
    - v. Finalized and awaiting implementation
    - vi. Under review
    - vii. N/A
  - 6.e. For each management plan identified in question 5, specify if the CECAF data or scientific advice were used for the development of diagnostics in the process of developing the plan:

- i. YES
    - ii. NO
    - iii. PARTLY
  - 6.f. For each management plan indicated in question 5, describe the management objectives:
  - 6.g. For each management plan identified in question 5, describe the proposed management measures:
  - 6.h. For each management plan indicated in question 5, describe if the CECAF recommendations have been helpful for the development of the measures or actions of the plan. Elaborate your response:
7. If the response to question 5 is NO:
- 7.a. Have the CECAF recommendations been helpful for the development of fisheries management measures or regulations in general? YES / NO
  - 7.b. Explain your response if it is **YES** or **NO**:

**What are the needs in terms of information and scientific analysis in support of fisheries management decisions, and what would be priorities for CECAF contributions?**

- 7.c. Resource status (assessment): YES / NO
  - 7.d. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?
- 7.e. Status of fisheries (industries and fleets for target species): YES / NO
  - 7.f. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?
- 7.g. Biological studies: YES / NO
  - 7.h. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?
- 7.i. Environmental studies, impact assessments: YES / NO
  - 7.j. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?
- 7.k. Socioeconomic studies: YES / NO
  - 7.l. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?
- 7.m. Other information on fisheries and the maritime sector: YES / NO
  - 7.n. If **YES**, please elaborate on:
    - a) How often should CECAF provide this information?
    - b) In what form should CECAF provide this information?

7.o. Specific considerations for artisanal fisheries: YES / NO

7.p. If **YES**, please elaborate on:

- a) How often should CECAF provide this information?
- b) In what form should CECAF provide this information?

8. What is your opinion regarding:

- a) the scientific advice of CECAF;
- b) management recommendations; and
- c) research recommendations of CECAF and their use? Elaborate on strength and weaknesses.

9. What are the possible ways to facilitate the adoption or consideration of CECAF recommendations at the national level?

10. What are your requirements for this?

11. What are your requirements and what role could CECAF play with regards to advice on monitoring, control and surveillance?

12. Observations: do you have any other comments concerning the role of CECAF in the fisheries management process? Please specify your answer:

*Thank you for participating in this survey.*

*Merete Tandstad*

### Appendix 3: Bilateral agreements listed by Kelleher

Parties in agreement	Date	Comments by Kelleher
Cape-Verde/Guinea	04.1989	Reciprocal access, fisheries cooperation agreement in general,
Cape-Verde/Guinea-Bissau	06.1995	Fisheries agreement on reciprocal access
Cape-Verde/Mauritania	18.11.1995	Convention which consolidates relations in the fisheries sector consistent with the conservation of the resource, sustainable level of exploitation; cooperation programmes on research, surveillance, training, ship repairs, transport; encouraging joint projects; harmonization of positions ref. International organisations. (2 years, renewable automatically).
Cape-Verde/Mauritania	25.04.2000	Memorandum of Understanding relating to the Coordination of surveillance and pursuit operations, and implementing protocol. There should be an additional protocol (older) between the Ministries of Defence on joint surveillance operations.
Cape-Verde/Mauritania	25.04.2000	Convention for cooperation in the field of investigations (signed between the Directors of the INDP and CNROP).
Cape-Verde/Senegal	29.03.1985	Convention on fisheries. Agreement on a work plan concerning reciprocal fishing access. Annual protocol to be signed on the number of operational vessels.
Cape-Verde/Senegal	29.03.1985	(Implementing protocol). Tuna vessels authorized to fish in all waters, as well as sardine boats (outside 3 miles). No payment for fishing licences. Catches to be declared.
Cape-Verde/Senegal	17.11.1994	Coordination on surveillance and pursuit
Gambia/Senegal	11.11.1992	Senegal-Gambia Convention on Fisheries. Reciprocal agreement on access to the resource with protocols. Specific number of licences to be allocated, exchange of information, joint committee on MCS. At least 51% of vessels should belong to nationals/ enterprises of the parties. Cost of the licence should be the same for both nationals and the other party. Agreement on the tonnage of ships: demersal trawlers, sardine and tuna vessels or boats.
Gambia/Senegal	29.03.1993	Cooperation on surveillance
Gambia/Senegal	25.01.1994	Procès verbal on exchange of GRT by type of vessel, implementation of the Convention sur les Droits d'accès de la CSRP en matière de maillage (40mm for pelagic trawlers). No protocol on pursuit.
Gambia/Senegal	07.05.1999	Procès verbal. Procedures for granting of licences and research. To avoid any potential difficulties, the passage of fishing vessels (ref. right of passage) should be communicated through a channel on 3370KHz and 3512KHz. Commitment to continue joint negotiations on access agreements.
Guinea/Guinea-Bissau	25.01.1980	Not indicated. Amended on 26/09/85

Guinea/Guinea-Bissau	21.10.199 5	Proposals for harmonization of costs of licence and terms and conditions for landing of fish in each Member State (not resolved).
Guinea/Guinea-Bissau	07.06.199 6	The protocol makes reference to the Agreement of 25/01/80 amended on 26/09/95. Makes reference to 'free licences'.
Guinea/Guinea-Bissau	07.06.199 6	Protocol and regulations on the coordination of activities of surveillance and pursuit. Undetermined duration.