

October 2002



منظمة الأغذية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations

Organisation  
des  
Nations  
Unies  
pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## FISHERY COMMITTEE FOR THE EASTERN CENTRAL ATLANTIC

SIXTEENTH SESSION

Tenerife, Spain, October 22-24 2002

RECOMMENDATIONS OF THE CECAF SCIENTIFIC SUB-COMMITTEE

**REPORT OF THE SECOND SESSION OF THE  
SCIENTIFIC SUB-COMMITTEE OF CECAF  
SANTA CRUZ DE TENERIFE, SPAIN 23 – 25 SEPTEMBER 2002**

**OPENING OF THE SESSION**

1. The Second Session of the Scientific Sub-Committee (SSC) of the Fishery Committee of the Eastern Central Atlantic (CECAF) was held at the Spanish Institute of Oceanography (IEO) in Santa Cruz de Tenerife, Spain from 23 to 25 September 2002. The Session was attended by 30 delegates from 17 Members of CECAF, and by observers from Angola, Namibia and the Ministerial Conference on Fisheries Cooperation Among African States Bordering the Atlantic Ocean (ATLAFCO). The List of participants and observers is presented in Appendix B.

2. Mrs Angeles Rodriguez Fernandez, Director of IEO in Santa Cruz de Tenerife, welcomed the participants to the Institute and expressed appreciation to the Sub-Committee for accepting the invitation of her centre as venue for the present Session.

3. Mr Benedict Satia, Chief, International Institutions and Liaison Service, FAO Fisheries Department, conveyed the warm greetings of Mr Jacques Diouf, Director-General of the Food and Agriculture Organization (FAO), to the Sub-Committee, and extended the gratitude of the organization to the Government of Spain for hosting the Session and for providing extra-budgetary assistance for the organisation of the meeting. He reminded the Sub-Committee that it was expected to make realistic recommendations to the Committee for resources management in the CECAF region. The Sub-Committee was also expected to draw up a workplan for the future activities of its working groups. He also reminded the participants of the significance of the ecosystem approach to fisheries management and requested the Sub-Committee to take into account the fisheries related recommendations of the just concluded World Summit on Sustainable Development (WSSD) in its deliberations.

4. Mr Eduardo Lopez-Jamar Martinez, Deputy Director-General of the Spanish Institute of Oceanography, welcomed the participants to Spain and reminded them of the relationship between his Institute, set up in 1914, and CECAF. He remarked that this relationship had been mutually beneficial to both structures. He informed Members of the various research programmes conducted in the Institute. He remarked that fisheries statistics collected by IEO had always contributed significantly to the activities of CECAF working parties. He assured the Sub-Committee that the information collected would continue to be made available to its working groups because he strongly believed that IEO shares CECAF's role in ensuring the sustainable exploitation of fisheries resources in the area covered by the Committee. In conclusion, Mr. Lopez-Jamar reiterated his government's continued support for the activities of CECAF.

**ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION**

5. The Sub-Committee adopted the agenda that is given in Appendix A. The documents presented to the Sub-Committee are listed in Appendix C.

## RECOMMENDATIONS ON RESOURCE MANAGEMENT OPTIONS

6. The Sub-Committee made the following recommendations:

For Small Pelagics:

- A precautionary catch level of 500,000 tonnes should be maintained for the Sardinellas (both species) in the Northwest area of the CECAF region.
- The combined catch of small pelagics in Northwest Africa should not be increased above the average level attained during the last 5 years of about 830,000 tonnes, excluding Sardine (*Sardina pilchardus*).
- The fishing effort for Horse Mackerel and Chub Mackerel should be restricted to the current level.

For Demersal Species:

- A precautionary approach on freezing fishing effort should be adopted for all demersal species in the region, including shrimps.
- Conduct annual assessments of stocks to project annual catch levels.
- A regional consultation on the rational exploitation of Black Hake should be organised.
- Use 70 mm stretched mesh size for the Hake fishery and maintain the effort on the stock at its present level.

## REPORT ON THE WORKING GROUP ON SMALL PELAGICS

7. The FAO Working Group on the Assessment of Small Pelagics off Northwest Africa was held in Banjul, The Gambia from 5 to 12 April 2002 to assess pelagic resources and to analyse fisheries management and exploitation options that would ensure optimal and sustainable use of the pelagic resources in the area. The Group had some difficulties in applying the modern stock assessment models such as Virtual Population Analysis (VPA) and Integrated Catch Analysis (ICA) because of insufficient age-length keys in the different stocks. Nevertheless, the group obtained results which enabled it make some management recommendations given in Paragraph 6.

8. Available data on Sardine (*Sardina pilchardus*), Sardinellas (*Sardinella aurita* and *Sardinella maderensis*), Horse Mackerels (*Trachurus trecae* and *Trachurus trachurus*) and Mackerel (*Scomber japonicus*), found between the Southern border of Senegal and the Northern border of Morocco, were used in the assessment.

9. Three stocks of Sardines were identified by the Group: Northern Stock (35° 45' - 32° N); Central Stock (32° N - 26° N) – Zone A & B; and the Southern stock (26° N – Southern limit of distribution) – Zone C. The analysis of the time series 1976 –2001 by separate VPA yielded unrealistic results, both in terms of fishing mortality and level of biomass. High residuals were found for certain age groups, which could indicate possible errors in the input data. On the basis of these results, the Working Group could not reach a conclusion concerning the state of the stock. Considering that there is no new information, the Working Group decided not to make a new

attempt at the present meeting to assess the Sardine stock in Zone C. However, results of acoustic surveys indicate an increase in stock size during the last years.

10. The Sardinellas were identified as one stock for the two species of sardinellas: *Sardinella aurita* and *Sardinella maderensis*, and the BIODYN model was used for their assessment. The results obtained provided useful information on the dynamics and possible state of the stocks. The catch level obtained in the assessment seemed to be consistent with the increasing trends in some CPUE series for Senegal fleets. The Dutch fleet CPUE series in Mauritania for the combined catches of both species of sardinella, for the period 1996 – 2001 show a decline from 1998 to 2001. However, as a measure of precaution, the 500,000 tonnes estimated catch of last year was retained for the maximum catch level for all fleets in the sub-region for 2003.

11. For Horse Mackerel, *Trachurus trachurus* (Atlantic) and *Trachurus trecae* (Cunene), the results indicated that the stock biomass of *T. trachurus*, which exhibited significant fluctuations in the last 20 years, had declined in recent years. On the contrary, *T. trecae* showed increasing trends in stock biomass.

12. In 2001, the Working Group identified two stocks of Chub mackerel; the Northern (Bojador to North of Morocco) and the Southern (Bojador to Senegal). Of these, only the Southern stock was analysed. The results showed a maximum biomass of 1.1 million tonnes in 1995 and a decreasing trend from 1996 onwards.

#### **REPORT ON THE WORKING GROUP ON DEMERSAL SPECIES**

13. The first meeting of the Demersal Species Working Group was held at the Spanish Institute of Oceanography (IEO) in Santa Cruz de Tenerife, Spain from 17 to 20 September 2002. The general objective of the Working Group was to contribute to the improvement of the assessment of the demersal resources of West Africa and to analyse fisheries resources management options. Recommendations were made on the rational utilisation of the demersal resources based on the results of the assessments conducted by the Group.

14. The species for which data was analysed included *Pagellus bellotti*, *Pseudotolithus sp.*, *Dentex sp.*, *Galeoides decadactylus*, *Brachydeuterus auritus*, *Octopus vulgaris*, *Sepia spp.*, *Loligo vulgaris*, *Merluccius merluccius*, *Merluccius senegalensis*, *Merluccius poli*, *Parapenaeus longirostris* and *Penaeus notialis*.

15. The Working Group formulated resource management options and elaborated a future research plan.

#### **REPORT ON THE WORKING GROUP ON ARTISANAL FISHERIES**

16. A consultative meeting to define the Terms of Reference of the Artisanal Fisheries Working Group was held in September 2001 in Cotonou, Benin. The first meeting of the Artisanal Fisheries Working Group was held in Abidjan, Cote d'Ivoire in July 2002. At that meeting, the group reviewed the status of artisanal fisheries in the region and identified the constraints that work against the efficient evolution of the sector. It also made recommendations and elaborated a work plan. Its major

recommendations retained by the Sub-Committee for the approval of the Committee are reproduced in Paragraph 24.

## **OBSERVATIONS ON THE ACTIVITIES OF THE WORKING GROUPS**

17. The Sub-Committee acknowledged the work undertaken by its three Working Groups. It noted that the work of its Working Group on Small Pelagics was intimately linked to the work of the Nansen Programme (GCP/INT/730/NOR) and that the Netherlands Government through the Netherlands Institute of Fisheries Research (RIVO) and the Institute of Marine Research (IMR) of Norway provided additional financial resources. The contribution of the Spanish Government to the work of the Demersal Working Group and that of the Sustainable Fisheries Livelihoods Programme (GCP/INT/735/UK), funded by the United Kingdom Government's Department for International Development (DFID) to ensure the work of the Artisanal Fisheries Working Group were also noted. The Sub-Committee expressed its gratitude to these institutions/organisations and projects.

18. The Scientific Sub-Committee took note of the difficulties that the Working Groups had encountered in their work, in particular the Demersal Working Group. The time taken for the preparation of data and the limited time available to the Groups have been observed to have made it difficult to undertake their work effectively. The Sub-Committee reiterated the importance of scientists coming to meetings with compiled data ready for the assessment models and suggested that the time available for future Working Groups be increased.

19. The Sub-Committee endorsed the reports of the three working groups and requested that the summary reports of the three working groups be attached to the present report. These reports are given in Appendices D, E, and F respectively.

## **FUTURE RESEARCH**

20. The Sub-Committee endorsed the following recommendations for Small Pelagics:

Concerning Sardine and Sardinella: A biological sampling programme has to be established for all fisheries in the area. The exchange of otoliths among scientists in the region should be strengthened and a workshop on age reading of Sardinella should be organized.

Concerning Horse Mackerel: The acoustic surveys should be continued; a regional programme to assess the entire stock including the coastal component of Horse Mackerel and other small pelagic species should be established and monthly sampling on board industrial vessels to establish species composition, length and age distribution, etc. be conducted. In addition, stock assessment methods that should incorporate environmental factors and age reading for the most important species should be initiated; while for Mackerel further studies on stock identity should be conducted.

21. The Sub-committee agreed that the establishment of a sub-working group for small pelagic resources in the Southern area of the CECAF region and the

continuation of the R/V Dr Fridtjof Nansen surveys as well as the calibration exercise undertaken in the context of joint surveys with research vessels of the sub-region were priority actions.

22. The Sub-Committee endorsed the following specific recommendations in connection with small pelagic species. A biological sampling programme for all fisheries in the Northwest Africa area and covering the entire fishing season and all fleets should be established; sampling for age composition for the entire length distribution as well as studies on the harmonization of age/size interpretation should be undertaken.

23. The Sub-Committee endorsed the following recommendations with respect to Demersal Species: In the South there is a need to strengthen capacity and harmonize the collection of biological and statistical data of principal species and also to continue the Nansen Surveys. In the North emphasis should be placed on intensifying work on spatio-temporal distribution, reproduction biology and recruitment of major species during trawl surveys and to set up scientific data exchange programmes between research scientists in the sub-region.

In the case of Cephalopods: The main themes are studies on inter-specific relationships between octopus communities, studies on interactions between the octopus fisheries and other species, notably cuttle fish and the squid, further development of an approach of direct estimation methods based on experimental projections and a quantitative geographical treatment as well as relevant genetic analysis of the octopus from different regions.

Concerning Hakes: The main actions include stock assessment through trawl surveys in the context of joint surveys in the region of Senegal-Morocco and updating biological information and catch information concerning Spanish trawls and longlines, while for shrimps the main recommendation is joint exploration surveys on deep water shrimps (*P. longirostris*) in the Senegal-Morocco region.

## **RECOMMENDATIONS FOR ARTISANAL FISHERIES**

24. The Sub-Committee endorsed the following recommendations for Artisanal Fisheries: Conduct frame surveys and classify production units of artisanal fisheries in the region; conduct pilot studies on the importance and sustainability of artisanal fisheries in the economies of the respective countries using the guidelines being formulated by the SFLP; update the available information on the migration of artisanal fishermen in the region; regularly conduct biological studies on the major target species and on the selectivity of the fishing gears used in the region; sensitize the various stakeholders on co-management in artisanal fisheries; and encourage regular consultation among fisheries administrations in managing shared stocks exploited by artisanal fisheries in the Gulf of Guinea.

## **FUTURE WORKPLAN**

25. The Sub-Committee agreed on its future work plans. The workplan for Small Pelagics is given in Appendix G, Demersal Species in Appendix H, while Appendix I contains the work programme for the Artisanal Fisheries Working Group.

## **OTHER MATTERS**

### **International Co-operation with the Nansen Programme- Fisheries Management and Marine Environment (GCP/INT/730/NOR) activities for 2001 and 2002**

26. The Sub-Committee noted that the Programme organized two training courses and three workshops and also conducted four surveys during the inter-sessional period. These activities are summarized in Appendix J.

27. The Sub-Committee was informed that the Nansen Programme envisaged a series of training courses and workshops. These activities are summarized in Appendix K.

### **Capture statistics**

28. An overview of the variations of catches for the year 2000 in the Eastern Central Atlantic was presented on the basis of document CECAF/SSC2/2002. In 2000, total catches in the area amounted to 3.5 million tonnes, a decrease of 1.4% with respect to the previous year (1999). Among the 10 major fishing countries in the area, Netherlands and Morocco have reported the highest increase while catches from Spain and the Russian Federation have shown a significant decrease. The analysis of the 2000 data by ISSCAAP (“International Standard Statistical Classification for Aquatic Animals and Plants”) groups, which had been recently revised, revealed an increase of small pelagic catches (in particular of chub and horse mackerels). It also showed a decrease of coastal and demersal fish catches with the only exception of flatfishes, which increased remarkably. Catches of valuable species such as tunas, crustaceans and cephalopods decreased by about 12-15%.

29. The recommendations of the 1<sup>st</sup> Session of the CECAF Scientific Sub-Committee in the area of fisheries statistics were reviewed. The abolition of the STATLANT 34 B was implemented and the data produced by the Las Palmas Survey have been made available in the Fishstat Plus format. Improvements in the management of the Las Palmas Survey database will be shortly discussed by FAO and IEO. The Sub-Committee was reminded that although the STATLANT 34 B was abolished, it was very important that countries continued to collect data on fishing effort using their own forms. The Sub-Committee was requested to lay emphasis on improving the quality and timeliness of fishery statistics and information collected by countries.

30. The Sub-Committee appreciated the fact that an electronic version of the STATLANT 34 A, which included a revised list of species, had been prepared. The meeting was also informed of the availability of the technical handbook “*Sample-based fishery surveys*”, which provided a simple and step-by-step guidance for developing and implementing cost-effective and sustainable fishery surveys. Further information was given about the beginning of a project to prepare a revised version of the FAO Species Identification Sheets for the Eastern Central Atlantic, in collaboration with the Institute of Marine Research, Norway and the Spanish Institute of Oceanography.

### **Ecosystem Approach to Fisheries Management**

31. The Sub-Committee followed with interest the presentation by Mr. Birane Samb on the outcome of the FAO Expert Consultation on the production of guidelines on Ecosystem Approach to Fisheries Management. The Meeting was organised by FAO and was held in Reykjavik, Iceland, 16-19 September 2002. Mr. Samb recalled that the *“Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem”* adopted in October 2001 had recommended that guidelines be elaborated on the subject.

32. The Consultation agreed that the guidelines should have 3 main sections and proceeded to develop the elements for the various sections. The first of the three sections would be an introduction which would indicate the different parameters of ecosystems and the various international instruments related to sustainable development, taking into account socio-economic considerations. Section two of the guidelines would outline possible management measures (fishing effort, capacity, close seasons and areas, protected areas, protection of the environment, etc). Section three would address the processes and mechanisms to facilitate the application of ecosystem approach to fisheries management such as participatory management, elaboration of management plans, taking into account all the users (fishers, tourism, agriculture, industry, etc.) and the need for effective Monitoring, Control and Surveillance. The aspects of research and the definition of terms were also developed. It was envisaged that the FAO Secretariat would finalize the draft guidelines by December 2002.

#### **Ministerial Conference on Fisheries Co-operation Among African States Bordering the Atlantic Ocean (ATLAFCO)**

33. The Representative of ATLAFCO informed the Sub-Committee of recent developments within the Ministerial Conference on Fisheries Cooperation Among African States bordering the Atlantic Ocean. The information is summarized in Appendix L.

#### **RENEWAL OF THE MANDATE OF THE WORKING GROUPS**

34. The Sub-Committee agreed to renew the mandate of its three working groups for another two years. The Terms of Reference agreed at the First Session of the CECAF Scientific Sub-Committee remain unchanged.

35. The Sub-Committee noted progress in twinning arrangements regarding resource survey in which research vessels in the region were assisting in the evaluation of stocks in other countries. The Sub-Committee further noted that Spain planned to undertake such activities in Guinea-Bissau and Gabon very shortly. The Sub-Committee recommended that members should collectively address requests for such survey activities, as it was possible the European Union would positively respond to them. It was, however, emphasized that in making such requests, it should be borne in mind that a two-year interval may be required before the surveys were undertaken.

#### **ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON**

36. The Sub-Committee re-elected by consensus, Mr Birane Samb and Kwame Koranteng as Chairperson and Vice-Chairperson respectively, in conformity with Paragraph 5 of the Terms of Reference of the Scientific Sub-Committee.

### **DATE AND PLACE OF THE THIRD SESSION**

37. The Sub-Committee acknowledged the offer of the Mauritanian Delegation to host the Third Session in December 2003. The Director-General of FAO in consultation with the Chairperson of the Sub-Committee will decide on the date and place of the Third Session.

### **ADOPTION OF THE REPORT**

38. The report of the Second Session of the CECAF Scientific Sub-Committee was adopted on 25 September 2002.

### **VOTE OF THANKS**

The Sub-Committee expressed its appreciation to the Government of the Kingdom of Spain and in particular to the Spanish Institute of Oceanography for hosting the Session. The note of appreciation is given below:

« With appreciation of the very warm welcome accorded us during our stay in this magnificent city of Santa Cruz de Tenerife, we the participants of the Second session of the CECAF Scientific Sub-Committee express our deep gratitude to the Kingdom of Spain and in particular to all the staff of the Canary Islands Oceanographic Centre of the Spanish Institute of Oceanography to whom we owe the good organisation and success of our work.

Permit us to extend our sincere thanks to the Director of the Centre, Dr Angeles Rodriguez Fernandez and a special mention of Dr. Eduardo Balguerias and his team who have put in all the effort to facilitate our entry into Spain and our enjoyable stay.

Once more, the Canary Islands Oceanographic Centre has lived up to its reputation of high sense of hospitality that is an African tradition. This hospitality raises in us a perpetual desire to participate in meetings organised in Tenerife.

We say again thank you and see you all at the next session of CECAF ».