PROCEEDINGS OF THE SECOND GENERAL ASSEMBLY OF THE AFRICAN FISHERIES RESEARCH AND MARINE SCIENCE INSTITUTES NETWORK (RAFISMER)

CASABLANCA (MOROCCO)
FEBRUARY 11TH AND 12TH 2016
PROCEEDINGS
OF THE SECOND GENERAL ASSEMBLY OF THE
AFRICAN FISHERIES RESEARCH AND MARINE
SCIENCE INSTITUTES NETWORK
(RAFISMER)

CASABLANCA (MOROCCO)
FEBRUARY 11TH AND 12TH 2016
# Table of contents

**WELCOME CEREMONY** .................................................................................................................. 3

**OPENING REMARKS BY MR. ABDELMALEK FARAJ, PRESIDENT OF RAFISMER** ......................... 3

**OPENING REMARKS BY MR. ABDELOUAHED BENABBOU, EXECUTIVE SECRETARY OF ATLAFCO** ................................. 4

**OPENING REMARKS BY MRS. ZAKIA DRIOUICH, SECRETARY GENERAL OF THE DEPARTMENT OF FISHERIES OF MOROCCO** .................................................................................................................. 6

**SPEECH OF MR YOSHIKI NAKAMURA, REPRESENTATIVE OF THE JAPAN EMBASSY IN MOROCCO** .......... 7

**AGENDA** ...................................................................................................................................... 8

**THE WORK PROGRAMME** ........................................................................................................... 9

**FINAL REPORT** ............................................................................................................................ 10

**REVIEW OF THE AGENDA** ........................................................................................................... 10

**PRESENTATION OF THE BALANCE OF THE ACTIVITIES OF THE OUTGOING EXECUTIVE BOARD OF RAFISMER** .................................................................................................................. 10

**RENEWAL OF THE MEMBERS OF THE EXECUTIVE BOARD** ......................................................... 12

Presentation of RAFISMER’S medium term Strategic Vision ................................................................ 12

**2016-2017 Biannual Action Plan** .................................................................................................. 15

**ADOPTION OF THE REPORT** ........................................................................................................ 16

**ANNEXES** .................................................................................................................................... 18

**PARTICIPANTS LIST** ....................................................................................................................... 48
The African Fisheries research and Marine Science Institutes Network (RAFISMER) held its first General Assembly on the 11th - 12th February 2016 in Casablanca (Morocco).

Seventeen member countries of the Network took part to this meeting. Representatives of the Fisheries Department, the FAO / CECAF, embassy of Japan, and the Platform "Océan- Climat" attended this meeting as guests. The list of the participants is joined in appendix 1.

Speeches were pronounced by the President of the RAFISMER, the Representative of the embassy of Japan in Morocco and the Executive Secretary of the ATLAFCO.

---

**WELCOME REMARKS BY MR. ABDELMALEK FARAJ, PRESIDENT OF RAFISMER**

Madam General Secretary of the Department of Marine Fisheries,

Mr. Executive Secretary of ATLAFCO,

Mr. Representative of the Japanese Embassy,

Madam Director of Cooperation and Legal Affairs of the Department of Marine Fisheries,

Distinguished Directors representing the RAFISMER member institutions,

It is with great pleasure and honor that I take the floor in front of this honorable General Assembly of the African Network of Fisheries Research and Marine Science Institutes Network from the countries of the Atlantic coast, knowing that we did not meet for different reasons, for a certain period time in the framework of this network.

As you know, our network consists of twenty-two members and focal points of African countries. We are now seventeen members taking part in this Assembly.

According to its statutes, RAFISMER is defined as a permanent organization for the exchange of ideas, dialogue and cooperation in the field of fisheries research and marine science. Its goals are first of all to promote scientific research, promote collaboration between our researchers and strengthen cooperation both between research institutions and agencies in charge of science in African countries, in other words: South-South cooperation in the field of research. Of course, enhancing the skills of our countries in the fields of fisheries and marine science, is very important for the sustainability of our resources. Skill strengthening must be done through the dissemination of knowledge and research results and the improvement of these results.

To meet these goals, RAFISMER held several meetings at the moment of its inception. We will assess its achievements in a few minute. Several achievements have been made: we will see the deliverables. Unfortunately, there was an interruption of activities and it is now time to resume our activities and re-energize the network through the effective support of ATLAFCO.

To that end, we are here today first of all to assess the achievements of the RAFISMER activities, to renew the officers of the Executive Board, to set the strategic priorities and the biennial action plan, and also to consider cooperation mechanisms and funding for the network.
Ladies and Gentlemen,

It is important, and we all know it, given the challenges related to fisheries and in connection with climate change and the impact it has on our resources, that our country and the institutions and organizations that represent research, handle these issues and assimilate its scientific dimensions so as to answer the decision makers with the elements that are appropriate to the problems of our countries. We can fully achieve this only if we are united. United does not mean doing the same thing. United means working together, representing and providing a platform, common speaking partners versus donors, and so on.

I think that we have the opportunity today and tomorrow to discuss these issues together, so that through this network, through this union, we can be creditworthy partners that can attract both donors and research activities likely to help us build together our skills as a network and those of our respective institutions.

Finally, I would like to take this opportunity to thank ATLAFCO, its Executive Secretary and all the staff that led us to revitalize, hopefully, the network of scientific institutes and supported us a lot in organizing this meeting.

I also thank the Department of Fisheries of Morocco and, in particular, Madam General Secretary of the department, who attended the opening of the meeting in recognition of the importance that Morocco attaches to our network.

I wish you a pleasant stay in Casablanca and full success in our work.

Thank you

WELCOME REMARKS BY MR. ABDELOUAHED BENABBOU, EXECUTIVE SECRETARY OF ATLAFCO

Ladies and Gentlemen,

I am glad to be here today to participate in the opening of the RAFISMER General Assembly session. I take this pleasant opportunity to thank you for responding positively to the invitation and I would like to welcome all of you in Casablanca and wish you a pleasant stay.

The holding of this General Assembly is part of the implementation of the 2015-2016 ATLAFCO action plan approved by the 9th Conference of ATLAFCO Ministers held in September 2014 in Rabat that emphasized the need to provide to Member States the necessary visibility to better manage the sector of fisheries by encouraging the promotion of scientific growth and by strengthening the scientific basis for fisheries management and the development of aquaculture.

This General Assembly is an opportunity for us to assess the progress made, and to generate for our network a new momentum that takes into account the forces that are both inside and outside fisheries research system in our region.

Ladies and Gentlemen,

RAFISMER was established in 2005 during the Libreville meeting of ATLAFCO, the goal being to make it a valuable tool for promoting scientific research for the fisheries sector.

The Network had therefore to propose activities aiming at improving the quality of research undertaken by its members on the one hand, and at contributing to a better coordination of fisheries
research in our region on the other, through an approach that promotes training and the flow of information.

During its years of existence, the Network has tried to achieve the goals that were set for it by performing some activities in the form of training sessions and publications. These actions remained however scattered and without a real vision.

We can therefore frankly say that for the period that has ended, the balance of our network was not in line with our aspirations.

The reasons are many and of various orders.

You are called upon today at this General Assembly to identify together the nature of these constraints that prevent our Network from operating fully and from making the appropriate proposals for its revitalization and in order to serve fisheries research that is the guarantee of sustainability of fisheries in our region.

The lack of funds for scientific research in general and in particular for fisheries research is one of the major constraints and results in a negative impact on network performance.

It is therefore necessary to consider this barrier and to consider it also in its national dimension in the resolution of the problems of funding of research in Africa that is conducted by the members of our Network.

Each one of us, within our sphere of responsibility at the national level, should raise awareness at our governments so that research is integrated as part of the national development strategy.

For its part, the Secretariat of ATLAFCO, that raised at the request of the 9th session of the Ministerial Conference the level of priority of fisheries research, has mobilized funds for the funding of activities having a scientific character. We are ready to discuss with the Executive Board the possibilities of financing of the Network’s activities on the basis of an action plan that you would have defined together.

However, knowing that the construction of a scientific and technological capacity requires a global response, the Network needs to use these days to prepare the elements of its strategy and set its priorities in terms of strengthening of scientific and socioeconomic knowledge for the sustainable management of fisheries and the development of aquaculture, without omitting to incorporate the threats for the marine ecosystem represented especially by the impacts of climate change.

The high level of participation and representativeness participated in this meeting are all factors that portend a profound and prolific reflection of concrete proposals to enable our organization to grow and to get stronger.

**Ladies and Gentlemen,**

On behalf of ATLAFCO, I would like to thank all participants, members of the Network and partners, for their precious participation in this General Assembly. Special thanks must be expressed to the Japanese Government through the OFCF for its constant and unconditional support.

Finally, our thanks go to the Moroccan authorities for their highly and important useful support that they do not stop to offer to our Network, by enabling us to hold this General Assembly in this beautiful and historic city of Casablanca.

Long life to the African Network of Fisheries Research and Marine Science Institutes.

Long life to the African scientific cooperation.

I wish you full success in your work.
Mr. Representative of His Excellency the Ambassador of Japan

Mr. Executive Secretary of ATLAFCO

Mr. President of RAFISMER,

Distinguished Directors and Representatives of RAFISMER

Let me first of all welcome you to Morocco, on my behalf and on behalf of the Minister of Agriculture and Marine Fisheries. I also wish you a pleasant and fruitful stay with us. Thank you for your participation in this important meeting of RAFISMER which clearly reflects the interest that we all show for the development of scientific cooperation in the African countries bordering the Atlantic.

As you know, and as pointed out by Mr. Representative of ATLAFCO, the origin of the creation of RAFISMER dates back to the 5th session of ATLAFCO held in Libreville (Gabon) in October 2005 in which the members states expressed their desire to base their policies on the management and development of fisheries on scientific grounds.

It is in this context that Morocco, through its marine fisheries strategy, the HALIEUTIS Plan, has greatly strengthened fisheries research and encourages scientific cooperation, particularly under its first pillar, sustainability.

I am convinced, Ladies and Gentlemen, that thanks to the highly positive spirit that exists within your Network and thanks to the friendship between its different members, your work will result, without doubt, in concrete actions likely to continue to promote the synergies that are necessary for the strengthening of the fisheries partnership that is so necessary to restore the fisheries of our respective countries and make their operations sustainable.

Morocco and the Department of Fisheries have high expectations concerning the concerted actions and cooperation coming from your network, and I am convinced that your strategic vision and action plan that you intend to discuss today will match all ATLAFCO members expectations.

Furthermore, let me make a small criticism. We, African countries are still shy on the international scene. We, the African countries that have a maritime vocation, must be an international force of proposals in order to preserve our assets and preserve our interests. We have all the ingredients to be successful and to become such a force: the sea, the fisheries, the framework, we have ATLAFCO where we have 22 countries that are members, and we have women and men needed for us to meet this challenge.

In ending, I wish to extend my sincere thanks to all the people in charge in our brotherly and friendly African countries who made it to Casablanca to participate in this important meeting. I wish you every success in your work, being convinced that the decisions and resulting recommendations will have an impact on scientific cooperation in our continent.

Long live to the Moroccan-African friendship!
Mr. RAFISMER Chairman,

Mr. Representative of the current Chairperson of ATLAFCO,

Madam General Secretary of the Marine Fisheries Department of Morocco,

Mr. Executive Secretary of ATLAFCO,

It is a great pleasure for me to be here today and I would like to express my deepest gratitude to the Moroccan National Fisheries Research Institute (INRH) and to ATLAFCO for inviting Ambassador Kurokawa to this meeting.

Today, I was honored to participate myself and to fill in for Ambassador Kurokawa who unfortunately was on another mission.

ATLAFCO and Japan have worked and are working together within many international organizations such as IWC, CITES and ICCAT.

This is because ATLAFCO and Japan share the same view and because our work is based on the same principle, namely, sustainable use of natural resources.

Japan always appreciates the cooperation with ATLAFCO members.

I think that this Second General Assembly of the Network of African Institutes Fisheries Research and Marine Science (RAFISMER) provides an important opportunity to determine our future path with respect to the accumulation of scientific knowledge that will become the basis of the sustainable use of natural resources.

Finally, I hope that this General Assembly will be fruitful for research institutes, international organizations of the countries concerned, and for all the persons who were in attendance today.

Thank you very much for your attention.
AGENDA

RAFISMER/GA2016. Doc1

<table>
<thead>
<tr>
<th>Points of the Agenda</th>
<th>Room papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. RAFISMER Graphic Chart and web</td>
<td>RAFISMER/GA2016. CG</td>
</tr>
<tr>
<td>3. Renewal of RAFISMER executive office</td>
<td>RAFISMER/GA.2016. SW</td>
</tr>
<tr>
<td>6. Other questions.</td>
<td></td>
</tr>
</tbody>
</table>
# The Work Programme

## Thursday February 11th 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 am</td>
<td>1. Participants registration</td>
</tr>
<tr>
<td>09.30 am</td>
<td>2. Opening Ceremony</td>
</tr>
<tr>
<td></td>
<td>- Welcome speech by the RAFISMER Chairman</td>
</tr>
<tr>
<td></td>
<td>- Welcome remarks of the Representative of the ATLAFCO current Chairman</td>
</tr>
<tr>
<td></td>
<td>- Opening remarks of the General Secretary of The Maritimes Fisheries Department of Morocco (host country)</td>
</tr>
<tr>
<td></td>
<td>- Speech of the representative of the Japan Embassy in Morocco.</td>
</tr>
<tr>
<td>10.00 am</td>
<td>3. Agenda adoption</td>
</tr>
<tr>
<td>10.10-10.45 am</td>
<td>4. Activities of RAFISMER’s Office.</td>
</tr>
<tr>
<td></td>
<td>- Presentation of the activities report by RAFISMER Chairman</td>
</tr>
<tr>
<td></td>
<td>- RAFISMER Web site and Graphic Charter Presentation</td>
</tr>
<tr>
<td></td>
<td>- Discussions</td>
</tr>
<tr>
<td>12.45 am</td>
<td>5. Renewal of RAFISMER executive office</td>
</tr>
<tr>
<td></td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
</tr>
<tr>
<td>1.00 pm – 2.00 pm</td>
<td>Afternoon: 6. RAFISMER strategic vision</td>
</tr>
<tr>
<td></td>
<td>7. Inter institutional cooperation development and identification of new partners</td>
</tr>
<tr>
<td></td>
<td>Dinner offered to all participants</td>
</tr>
<tr>
<td>3.00 pm – 5.00 pm</td>
<td>Friday February 12th 2016: 8. RAFISMER Action Plan 2016-2017</td>
</tr>
<tr>
<td></td>
<td>10. Other questions.</td>
</tr>
<tr>
<td>1.00 pm – 2.00 pm</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
</tr>
<tr>
<td>3.00 pm – 5.00 pm</td>
<td>Afternoon: 11. Visit of the INRH Laboratories.</td>
</tr>
</tbody>
</table>
### REVIEW OF THE AGENDA

1. The agenda as presented (RAFISMER / AG2016. Doc1) was adopted unanimously.

### PRESENTATION OF THE BALANCE OF THE ACTIVITIES OF THE OUTGOING EXECUTIVE BOARD OF RAFISMER

2. The activity report of the outgoing Executive Board (Document RAFISMER / AG2016. Doc2. Appended) was presented to members of RAFISMER by Mr. Said Taleb (Head of the Legal Affairs Division at INRH) who made a presentation of the past activities of the Executive Board and of the network activities since its creation. He also informed the members of the constraints faced and of the efforts to overcome them. He also outlined the achievements to be recognized as assets in the network between 2003 and 2006.

   i. The constitution of the network, of its Executive Board and the development of its statutes filed with the local authorities of the city of Casablanca;
   
   ii. The holding between 2003 and 2006 of four meetings of the Executive Board of RAFISMER.
   
   iii. The actions carried out by the Executive Board during the 2003 - 2005 period have made it possible to organize the first edition of the directory of fisheries research and Marine Sciences institutes and centers of the 22 countries in the ATLAFCO region. This edition was produced both as a document, allowing to incorporate new information, and as a multi-media tutorial on CD Rom. Being interactive and evolving, this product can be improved and expanded in the future with the availability of new data.
   
   iv. The publication of a guide (booklet and CD Rom) of crustaceans and cephalopods species and other pelagic resources of the ATLAFCO countries.

3. In terms of prospects defined in 2006 in Luanda, the Executive Board had maintained the following actions:

   i. the establishment of a directory of experts, researchers and technicians working in the field of fisheries research. The goal was to stimulate once again the gathering of the information that is necessary for this directory, based on the questionnaire prepared already for this purpose in 2004;
   
   ii. Setting priorities for research at each of the three sub-regions ecosystems, through the organization of consultations within each of these sub-regions;
   
   iii. The organization of scientific and technical workshops of mutual interest to the countries of the region, particularly in each of the three ecosystem sub-regions. The themes already approved by the Executive Board of the Network during its last two sessions will be addressed according to the priority of each theme.
iv. The Executive Board had also agreed to establish ties of cooperation and consultation mechanisms between RAFISMER member institutions and subregional, regional and international organizations working in the field of fisheries, particularly CECAF.

v. It was also agreed to facilitate the dissemination of information among researchers of the Network member countries, by making available to them the summaries of articles and publications as well as the research programs being implemented in the region.

vi. On the other hand, the creation of a specific RAFISMER web site and the publication of a newsletter to improve communication and dissemination of information were also among the items selected during the Luanda meeting as was the case during previous meetings.

vii. It was finally agreed that the 4th meeting would be held in one English speaking country of the North of the Gulf of Guinea. The Permanent Secretary of ATLAFCO was supposed to make the necessary contacts to identify the country that would host the meeting. This action has not been subject to follow-up, particularly because of the constraints in terms of funding opportunities for the RAFISMER activities.

4. The stocktaking presentation highlighted the financial constraints that have hindered the implementation of these measures, despite a clear willingness to act.

5. The President then informed the members of the latest achievements with financial support from the ATLAFCO secretariat: the RAFISMER graphics and website were presented to the attendees by Ms Rachida HOUSSA (Head of the Documentation and Information Center of the INRH).

6. While welcoming the reactivation of the network, the attendees welcomed recent achievements, and made a number of comments and suggestions making it possible to capitalize on these achievements and to take advantage of the Network graphics and website to increase its visibility and readability. It was especially recommended:

   **AG2016. R1.** To continue the construction and improvement of the website:
   - Strengthening the possibilities of scientific and technical information sharing offered by the website for a "virtual community" that could potentially lead to the launch of initiatives;
   - Capitalizing on scientific productions and other information produced by the institutions by providing information on the web site;
   - Improving the visibility of the institutional research capacities of member States (member institutions and associated institutions)
   - Taking into account the working languages within the Network in terms of content writing (French, English and consider the possibility of a Portuguese version).

7. The President invited Ms. HOUSSA to get in touch with the focal points of the various institutions in the shortest possible time in order to build and supply the agreed editorial sections with the ad hoc information.

8. The Chair then asked the attendees to vote to select a logo from the models. The attendees adopted the logo that obtained two thirds of the votes.
9. The term of the outgoing Executive Board having expired, the Chairman invited members to express their positions in order to carry out the renewal of members.

10. The attendees voted for the renewal of the members of the outgoing Executive Board for another term.

11. The composition of the Executive Board thus remains as follows:

- Morocco: President
- Namibia: 1st Vice President,
- Mauritania: 2nd Vice President,
- Cameroon: 3rd Vice President,
- Senegal: Secretary;
- Nigeria: Treasurer;
- Cabo Verde: Assessor.

Presentation of RAFISMER’S medium term Strategic Vision

12. The President invited Ms. Souad KIFANI (INRH Secretary General) to present to the attendees a draft medium-term strategic vision for the RAFISMER as a result of internal reflection within IINRH (RAFISMER / GA2016. Attached Doc 3).

13. The presentation described the status of transnational threats and challenges in the region including those related to climate change, overfishing and anthropogenic pressures on coastal biotopes.

14. She also drew the attention of the attendees to the challenges facing the region in terms of development of research capacity to take advantage of the oceans and their resources in a lasting manner.

15. Ms. Souad KIFANI then submitted to the attendees:

- the strategic areas proposed for a contribution by RAFISMER to the strengthening of regional research capacities, a contribution that would be suited to the current needs and future challenges.
- the proposals for regional strategic projects, defined on the basis of the regional context, for which RAFISMER should focus more on supporting the sharing of experiences and expertise as well as supports joint efforts and initiatives.
- A partnership-based strategy of the Network with third-party organizations that can provide support to its actions, in particular in terms of development of expertise and access to resources and information.

16. The presentation also emphasized the importance for the network of having, for this purpose, substantial resources to fully assume the catalytic and integrating role of a regional cooperation
platform. The Executive Board will work to mobilize the necessary funds and gain commitment from institutional and financial partners on a longer term.

17. The Chairman invited members to comment on the draft that was submitted to them.

18. The attendees took note of RAFISMER's medium-term draft strategic vision.

19. The discussion that followed emphasized that the identified threats require some research so as to provide solutions, which is the rationale behind the existence of the network members research institutions, but also highlighted some deficiencies at the national level in various countries, in terms of expertise and resources in different areas that are needed to meet present and future challenges.

20. The meeting also raised the problem of the dispersion of efforts and resources and expressed the need to make the most of the existing initiatives in which countries are or were committed. The opinions converge towards solutions based on the efforts and resources of the region: human resources (exchange of expertise and know-how, training for and by research), information resources (usual uses of the collected databases, documentation ...) and technical resources (fisheries oceanographic cruises conducted by the countries of ships of the region in different EEZs, submission of a request to acquire a research equipped by the RAFISMER institutions, and harmonization of the ocean drifters and buoys).

21. The matching of supply and demand in terms of regional resources and training opportunities and in terms of exchange of experience should be one of the strategic levers of the Network.

22. The attendees also expressed a need to develop resource mobilization and funding mechanisms to support the efforts of the network and defend research projects and strengthen cooperation between the member institutes and associated institutes.

23. Following these discussions, the attendees adopted the following strategies:
   - Axis 1: Exchange of expertise, training, workshops, working groups, seminars ...
   - Axis 2: Pooling of resources, strengthening of logistics capabilities
   - Axis 3: Interface for the development of initiatives, research projects and studies.

24. The RAFISMER members also recommended:

**GA2016. R2. Adding a fourth strategic pillar: “External Communication & Participation in decision-making in international fora” on:**

- The strengthening of the RAFISMER communication strategy;
- Consultation and harmonization of positions for common views in fora and international bodies;
- Increased RAFISMER participation in the decision-making process in international fora;

25. They also made a number of other recommendations to complement the strategic vision of the network and identify the main lines for the actions of the 2016-2017 biennial plan:

**GA2016. R3. Establish a diagnosis of the research capacities of the Network member institutions and associated institutions (HR, media, data bases ...).**
GA2016. R4. Develop mechanisms to capitalize on - and take ownership of - the existing initiatives in terms of research in the member countries and at the regional level.

GA2016. R5. Establish a comprehensive diagnosis of the threats and vulnerabilities throughout the region and its sub-regions and by relying on the expertise of the network.

GA2016. R6. Adopt the holding of a scientific conference every 2 to 3 years.

GA2016. R7. Consider the possibility for RAFISMER to make a strong contribution to the training needs through research (young researchers) and to the upgrading of research capacities in terms of HR (exchange and development of expertise ...)

GA2016. R8. Identify opportunities to pool resources in the region (materials, equipment, expertise, information)

GA2016. R9. Identify mechanisms to ensure consistency of efforts and for the mobilization of funds for research.

26. In order to maintain its dynamism, the attendees also strongly recommended:

GA2016. R10. To adopt the practice of holding RAFISMER statutory meetings on a regular basis.

27. After a rich debate, the attendees also decided to stay the execution of a previous recommendation relating to the signing of a cooperation protocol with CECAF, pending further review of the expectations and of the possibilities covered by this agreement.

28. The attendees, in connection with the foregoing, opted for the formulation of a request with FAO / CECAF to enable RAFISMER to take part in its meetings as an observer.

29. The attendees also stressed the importance of collaboration between RAFISMER and FAO / ICSEAF; knowing that some RAFISMER member countries are not part of the CECAF region.

30. The attendees then closely followed the presentations of Mrs. Merete TANDSTAD (from the Marine Resources Service of FAO in Rome and CECAF Coordinator) and Ms. Françoise GAILL, Emeritus CNRS researcher and scientific coordinator of the Ocean & Climate Platform.

31. Ms. TANDSTAD recalled the threats facing fishery resources and marine ecosystems in the region. She also informed the participants about the initiatives by or with FAO in the region. She also highlighted the gaps and inadequacies in the CECAF performance and the areas for improvement.

32. Ms. GAILL, in turn, attracted the attention on the issues of oceans in the international rounds of negotiations on climate change. She introduced for that purpose the Ocean & Climate Platform which she represents, and the major role that this platform is playing now in terms of lobbying for the oceans in the climate negotiations (http://www.ocean-climate.org/). She also drew attention to the need to join this initiative.

33. Participants then emphasized the importance for the countries bordering the CECAF region that are all part of RAFISMER should support this organization by working to improve its functioning.
Participants also expressed interest in working with the Ocean & Climate Platform and agreed on a number of activities to be carried out together in preparation for RAFISMER’s activities in the sidelines of the COP22 conference in Marrakech in November 2016.

2016-2017 Biannual Action Plan

After discussion, the attendees approved the pillars and main lines of the two-year action plan.

The President also recalled that in view of its missions, RAFISMER must operate as a research and resource-based agency and should therefore not substitute itself to member research institutions in terms of programming of their current activities in function of their missions:

RAFISMER, through its missions, should:
- facilitate the exploitation of the resources offered by bilateral and multilateral agencies for scientific and technical cooperation without any exclusivity;
- help harmonize the potential requirements, means, and services in terms of scientific and technical cooperation;
- contribute to the listing of the media to be used for the activities to be undertaken;
- study and promote all forms of cooperation, by developing all efforts so that this entity for dialogue, consultation and coordination is recognized by all international agencies;
- and promote agreements and support the cooperation teams on the basis of functional and organic relationship with the competent authorities of the countries concerned.

This aims at:
- strengthening cooperation between African research institutions;
- improving the training of researchers in member countries;
- building capacity in the areas of scientific and technological research in the field of fisheries and marine science;
- disseminating research results with the different users in the most appropriate form;
- promoting scientific research in collaboration with similar sub-regional, regional and international organizations;

Based on the Four Strategic Areas adopted by the attendees, the main lines of action were broken down as follows:

Axis 1: Exchange of expertise, training, scientific events (workshops, working groups, seminars etc.)
- Action 1.1. Identify and typify the requests for training through research (young researchers) and for research (development of expertise and upgrading of human resources) of the member and associated research institutions.
- Action 1.2. Holding of a scientific symposium every 2 to 3 years.

Axis 2: Pooling of resources and improving logistical and informational capacities
- Action 2.1. Identify opportunities for pooling of regional resources (materials, equipment, expertise, and information) to facilitate access to analytical platforms, the mobilization of research vessels for campaigns over several EEZs, the harmonization of facilities and observation systems (ocean drifters), etc.
- Action 2.2. Support the strengthening of statistical coverage capabilities, biological monitoring, and the assessment of fisheries stocks.

**Axis 3: Interface for the development of initiatives, as well as research projects and studies**

- Action 3.1. Establishing mechanisms to capitalize and take ownership of the existing initiatives in research in member countries and within the region.
- Action 3.2. Establishing mechanisms to ensure consistency of efforts and for the mobilization of funds to support structures and research teams.
- Action 3.3. Promoting the emergence of a multi-stakeholder West African platform for research on aquaculture.
- Action 3.4. Supporting the emergence of a regional platform for the development of operational oceanographic products and services for monitoring, forecast and alert, meeting the needs of decision-makers and players of the fisheries sector.
- Action 3.5. Mobilizing the resources, skills, expertise and data of the network for the implementation of a comprehensive diagnosis of the threats and vulnerabilities throughout the region and its sub-regions.

**Axis 4: External Communication & Participation in decision-making in international fora**

- Mobilization of RAFISMER for the COP22 conference (Ocean & Climate platform and other initiatives for a better integration of the role of oceans in the climate system).

40. The attendees also adopted the implementation of a cross-cutting activity:

- **Cross-cutting activity:** Making a diagnosis of the research capacities of member institutions as well as those of the network’s associate institutions (HR, media, data bases ...).

41. The Executive Board will in the shortest possible time be in charge of implementing in detail the actions adopted within the program of activities planned in time and budgeted.

42. Some activities have already been identified:

- RAFISMER’s participation in the Symposium on Climate Risk planned in Casablanca in June / July 2016.
- Participation of RAFISMER in a session of scientific side events (Ocean Forum) organized in the sidelines of COP22.
- Participation of RAFISMER in COP22 where INRH will reserve to RAFISMER a space in its booth;
- The invitation extended by Mauritania to RAFISMER members to attend the next Working Group on the development of Mauritanian fisheries.

**ADOPTION OF THE REPORT**

43. The report of the second General Assembly was adopted on February 12, 2016 at 1.00 pm.
### Crosscutting activity

Making a diagnosis of the research capacities of member institutions as well as those of the network’s associate institutions (HR, media, data bases ...).
ANNEXES
RAFISMER was established pursuant to the recommendation of the 5th session of the Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic Ocean (ATLAFCO), held in Libreville in October 2001, during which the Ministers expressed their willingness to base policy management and development of fisheries on a reliable and credible scientific basis. They translated this by recommending the establishment of a network grouping the Fisheries Research and Marine Science Institutions of the West African region.

The constituent meeting of the Network was held in Casablanca on 17 and 18 February 2003, with financial support of the French and Moroccan Governments. Eight of the twelve ATLAFCO member states featuring fisheries or marine research institutions were represented at the meeting: Morocco, Senegal, Mauritania, Guinea, Côte d’Ivoire, Gabon, Cameroon and Namibia.

The meeting considered the following activities:

- the consideration of the draft statute and the adoption of the amendments
- the establishment of a provisional RAFISMER Executive Board consisting of: Morocco: President, Namibia: 1st Vice President, Mauritania: 2nd Vice President, Cameroon: 3rd Vice President, Senegal: Secretary; Nigeria: Treasurer; and Cabo Verde: Assessor.

The Provisional Committee was mandated to finalize the amendments to the draft Statutes and draft Internal Rules of the network.

The first meeting of the Interim Executive Board of RAFISMER that was also held in Casablanca in July 2003, asked the President of the Executive Board and the Permanent Secretary of ATLAFCO to draft the network Internal Rules by taking into account changes in statutes during the previous meeting.

Several other issues were also discussed during the first two meetings that reviewed the regional particularities and fisheries research strategies undertaken by different countries and issued the first recommendations for harmonization work between the countries of the region through different
mechanisms (targeted training and refresher training activities, facilitating exchange of expertise, information and documentation between countries ...).

As a first step in the process, the Interim Executive Board recommended the holding of consultations in each of the three ATLAFCO sub-regions (subregions of the Canary Current, the Gulf of Guinea and the Benguela Current) with a view to:

- The establishment of a directory of institutions and institutions devoted to fisheries research and marine science;
- Identification of the Network’s focal points in each country;
- The establishment of a directory of experts, researchers and technicians working in the field of fisheries research and marine science;
- Definition of research priorities of each of the three subregions and of a short strategic program for the short and medium term.

There were also discussed at these meetings the possibilities of organizing scientific and technical workshops of mutual interest to the countries of the region, and it was recommended to organize two workshops on a theme chosen from the following identified themes:

- Assessment of fishery resources;
- Monitoring the health of the marine environment;
- Development of aquaculture;
- Fishing gear technology
- Dissemination and popularization of research results to industry stakeholders;
- Fisheries management;
- Enhancement of the value of current fish products and development of new products.

These actions were the elements of the action plan for the 2003-2004 period.

The draft statutes of the Network that was improved thanks to the remarks of delegates from different countries was reviewed by a lawyer in the context of a consultation carried out for this purpose in accordance with recommendations of the 1st RAFISMER Executive Board Meeting. The final version was submitted to the appreciation of the members of the Executive Board on the occasion of the holding of the second meeting of the RAFISMER Executive Board held in Douala, Cameroon, in July 2004 that adopted amendments to the Statutes.

It was agreed that the Chairman of RAFISMER will inform all Network members of the adoption of amendments to the Statutes and will specify the prerogatives of the Executive Board, elected for a term of 3 years, during the Constituent Assembly, held in Casablanca in February 2003.

The statutes of RAFISMER were filed with the Moroccan authorities in accordance with the statutory rules defined in the legislation. The headquarters of the Network are set at the National Fisheries Research Institute (INRH) of Morocco based in Casablanca. The headquarters can be moved by decision of the Executive Board of the network subject to ratification by the General Assembly. In this case, the network will be governed by the laws of the country of its new headquarters.

Four countries (Cameroon, Morocco, Senegal and Gabon) took part in the 2nd Executive Board meeting during which was discussed the progress made in the implementation of the action plan and of the recommendations.
The Executive Board recommended the creation of a specific website for the Network and the publication of a newsletter to improve the communication and dissemination of information.

Due to a lack of budget, the hiring of a consultant, recommended during previous meetings, to make a comprehensive inventory of research institutions and experts from the member countries of RAFISMER, could not be made. To do his work, the President of RAFISMER appointed a small working group consisting of a representative of RAFISMER and a representative of the Permanent Secretariat of ATLAFCO. To this end, two forms relating to institutions and experts were prepared and sent to member countries.

The organization of the two thematic workshops was defined within the framework of RAFISMER’s 2003-2004 action plan, requiring the mobilization of funds. In the absence of these funds, no theme has unfortunately been addressed. It was found however that these actions were needed to finalize the first directory of research institutions, including the identification of focal points.

The lack of funds has also been an obstacle to achieving the other two points of the terms of reference for the consultation planned for completion under the 2003-2004 Action Plan, namely:

- the finalization of the inventories of institutions and experts;
- setting priorities for research at each of the three sub-regions. A preliminary work was conducted however, but still needed to be continued and deepened to better reflect the specificities characterizing the three sub-regions;

In the absence of the funds necessary for the various actions proposed, the Executive Board asked member countries for contributions, notably by providing the information required for the achievement of the agreed activities.

The Conference of Ministers meeting in its 6th Session in July 2005 in Rabat, Morocco, noted "with satisfaction the establishment of the African Network of Fisheries Research and Marine Science Institutes (RAFISMER), as appropriate framework for cooperation and promotion of fisheries research at the sub-regional and regional levels" and also urged "States, international organizations and potential donors to lend their support to the development and implementation of regional fisheries research projects ";

The 3rd meeting of the RAFISMER Executive Board held in April 2006 in Luanda, Angola that was attended by delegates from six member countries of the Executive Board (Angola, Cabo Verde, Côte d’Ivoire, Morocco, Mauritania and Senegal), was the opportunity to present RAFISMER’s new 2007-2011 draft strategic program for research, developed at the request of ATLAFCO’s Permanent Secretariat through a consultation, as well as the progress of the planned activities during the last year of office of the Executive Board.

President of RAFISMER’s Executive Board insisted during the 3rd meeting on the possibilities to organize in the future, workshops and scientific and technical seminars of mutual interest to the countries of the region. The themes already approved by the Executive Board of the Network at previous meetings should be addressed as priorities identified for each of the three sub-regions for the consultation planned for this purpose:

In terms of prospects outlined in 2006 in Luanda, the Executive Board had maintained the following actions:
- the establishment of a directory of experts, researchers and technicians working in the field of fisheries research. This will be the reactivation of the collection of information necessary for this directory, based on the questionnaire prepared already for this purpose in 2004;
- the definition of priorities for research at each of the three sub-regions ecosystems, through the organization of consultations within each of these sub-regions;
- the organization of scientific and technical workshops of mutual interest to the countries of the region, particularly in each of the three ecosystem sub-regions. The themes already approved by the Executive Board of the Network during its last two sessions will be addressed according to the priority of each theme.

The Executive Board had also agreed to establish cooperation links and cooperation mechanisms between the RAFISMER member institutions and the subregional, regional and international organizations working in the field of fisheries. All Network members present at the meeting unanimously agreed to the strategic interest and importance of establishing a true partnership between RAFISMER and CECAF.

It was also agreed to facilitate the dissemination of information among the researchers of the Network member countries, by making available summaries of the articles and publications and research programs in progress in the region. It was also agreed to create a specific RAFISMER website and to publish a newsletter to improve communication and dissemination of information, as one of the recommendations reiterated at the meeting in Luanda.

It was finally agreed at the end of this 3rd RAFISMER Executive Board meeting that the 4th meeting would be held in an English-speaking country of the northern part of the Gulf of Guinea. The Permanent Secretary of ATLAFCO was in charge of establishing the necessary contacts to identify the country that would host the meeting. There was no follow-up on this action, particularly because of the constraints in terms of funding opportunities for the RAFISMER activities.

These financial constraints that do not enable most often the Network to implement selected activities and hold its meetings in accordance with the statutes were again highlighted at the Conference of Ministers meeting at its 7th session in Abidjan, Côte d’Ivoire in 2007. Recognizing the importance of research in the establishment of the definitions of the fisheries development policies and management of fisheries and reiterating its commitment to energize RAFISMER, the Conference stressed the need for a financial contribution of ATLAFCO Member States to ensure smooth running of the RAFISMER activities.

A request for financial and technical support had also been made on July 17, 2007 with the Delegation of the European Commission in Morocco to perform two actions by RAFISMER for the organization of a workshop relating to an assessment of the fisheries research status in the countries of the ATLAFCO region with an estimated cost of US $ 70,000 and the organization of the 4th meeting of RAFISMER’s Executive Board with an estimated cost of US $ 50,000. This funding, however, could not be made available.

**In terms of balance of the achievements of the outgoing Executive Board of RAFISMER:**

- The establishment of the network, of its Executive Board, and the development of its statutes filed with the local authorities of the city of Casablanca;
- The holding between 2003 and 2006 of four meetings, including three meetings of RAFISMER’s Executive Board
- The information collected by the Executive Board during the period ranging from 2003 to 2005 has allowed for the publication of the first directory of fisheries and marine research institutes and centers of the 22 countries belonging to the ATLAFCO region. This edition was produced both as a document, allowing to incorporate new information and multimedia tutorial on CD Rom. Being interactive and scalar in nature, this product can be improved and expanded in the future with the availability of new data.

- The information also helped to meet one of four main terms of reference of the consultation, namely the identification of RAFISMER’s focal points in each of the 22 countries of ATLAFCO.

- The publication of a guide (booklet and CD Rom) of species of crustaceans and cephalopods and other pelagic resources of the ATLAFCO member countries.

- The completion of the network graphic charter.

- The design of a RAFISMER website that will increase its visibility within the scientific community and among donors. The website will make it possible to make an inventory of resources, programs, expertise and experts, researchers, and technicians working in the field of fisheries research and marine science in the region and will be an information and exchange platform between scientists.

- The preparation of a draft memorandum of understanding with the RAFISMER and CECAF to be submitted at the next meeting of the network and to FAO for consideration.

- The convening and organizing of the first General Assembly.

It should be recalled indeed that the statutes of RAFISMER provide in their Article 6 that the Network's bodies are: the General Assembly and the Executive Board. To date, the Network has never even met as a General Assembly. The statutory provisions also provide for a renewal of the elected members of the Executive Board for a limited period of 3 years. The outgoing members of the Executive Board having completed their mandate, the holding of a General Assembly and a renewal of the Executive Board are required to comply with the terms of good governance of the network.

Accordingly, and in view of reactivating the operation of RAFISMER, the president of RAFISMER convened the first General Assembly in order to adjudicate on the report on RAFISMER’s activities; to renew the Executive Board members, to set RAFISMER’s strategic priorities and biennial action plan, and finally to review the mechanisms of cooperation and network financing.
### Conclusion for Fisheries Research

**Common will to develop fisheries research, although some countries do not have fisheries research centers.**

**Same themes identified as requiring priority within the Research programs** of the participating countries: (i) Stock assessment, (ii) fisheries management; (iii) Development of aquaculture, (iv) Monitoring the quality and safety of the marine environment.

**Constraints to be overcome, in order to set an appropriate research strategy:** the need for capacity building, the lack of synergy between the programs of the countries of the region, the lack of logistical means for research programs, the shortage of suitable scientific staff, the imbalance between the numbers of researchers and technicians who must constitute "research teams", and the insufficiency and discontinuity of funding for Research.

### Recommendations for Organizing Workshops

- Organization of two workshops;
- The meeting recommended the initiation of sub-regional consultations to highlight specific themes that could be the subject of workshops or regional and / or sub-regional meetings.

**Items on the agenda**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Conclusions</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fisheries research strategy</td>
<td>Common will to develop fisheries research, although some countries do not have fisheries research centers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Same themes identified as requiring priority within the Research programs of the participating countries: (i) Stock assessment, (ii) fisheries management; (iii) Development of aquaculture, (iv) Monitoring the quality and safety of the marine environment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constraints to be overcome, in order to set an appropriate research strategy: the need for capacity building, the lack of synergy between the programs of the countries of the region, the lack of logistical means for research programs, the shortage of suitable scientific staff, the imbalance between the numbers of researchers and technicians who must constitute &quot;research teams&quot;, and the insufficiency and discontinuity of funding for Research.</td>
<td>- Organization of two workshops;</td>
</tr>
<tr>
<td>Organizing workshops</td>
<td>The meeting discussed the possibility of organizing workshops on the following topics: (i) Fisheries Resource Assessment; (ii) Monitoring the safety of the marine environment; (iii) Development of aquaculture; (iv) Fishing gear technology; (v) Dissemination of the extension of research results to industry stakeholders;</td>
<td>- The meeting recommended the initiation of sub-regional consultations to highlight specific themes that could be the subject of workshops or regional and / or sub-regional meetings.</td>
</tr>
</tbody>
</table>
(vi) Fisheries Management.

The meeting agreed to organize two workshops: one on the assessment and management of marine resources and the second one on fishing techniques, aquaculture and extension for fisheries sector operators.

| Consultation on the formulation of research programs on international meetings | The States of each of the three main sub-regions (Benguela Current, Gulf of Guinea and the Canary Current) should meet to identify joint programs of common interest in the sub-region and benefit from the assistance of all the skills particularly those of universities; These regional programs should to be mounted in a spirit such that RAFISMER may be able in the future to work towards achieving development objectives:

(I) the quality of fisheries research in the region (training, expertise, logistics);

(II) centers of excellence (sub-regional expertise) and

(III) a common approach to inventory valuation (including shared), fisheries management and conservation of marine ecosystems and their biodiversity. |

| | Meeting to identify joint programs of common interest in the sub-region and benefit from the assistance of all the skills particularly, those of universities. |

| RAFISMER and the scientific community should play a warning role in terms of awareness versus politicians, about the threats that may result from certain measures taken on the international scene. Research and adoption of unified positions in international forums in order to get the best interest for the ATLAFCO member states should be well facilitated. |

| Role warning matters and awareness of policy makers, about the threats that may result from certain measures taken internationally. |

| Adoption of unified positions in international fora in order to get the best interest for the ATLAFCO member states. |

| Because of the difficulties in defining the specific needs of each member state at this point, the meeting recommended the need to launch an upgrade of the capacities of the various research institutes and, for the analysis of human and technical capacity and resources needed to strengthen and diversity to develop an inventory of the research activities and the researchers involved in order to identify strengths and weaknesses in the programming of research activities at the regional and sub-regional levels. |

| Launching a consultation for the development of a directory of research and the researchers involved in order to identify strengths and weaknesses in the programming of research activities at the regional and sub-regional levels. |

| Exchange of researchers and scientific documents | The meeting invited the Permanent Secretariat of the Conference to focus on the skills of the region and to encourage the exchange of researchers and the pooling of logistics (research vessels, etc.) between the states of the region. |
The meeting recommended the establishment of information dissemination tools, namely: A website, to also be a virtual resource center; a statement of research programs; a directory of researchers and technicians in the region and their CVs.

<table>
<thead>
<tr>
<th>Network Status</th>
<th>Consideration of the draft statute and adoption of amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Setting up a temporary Executive Board of RAFISMER (Morocco: President, Namibia: the &quot;Vice President, Mauritania: 2nd Vice President, Cameroon: 3rd Vice President, Senegal: Secretary, Nigeria: Treasurer. Cabo Verde Assessor)</td>
</tr>
<tr>
<td></td>
<td>The meeting mandated the Provisional Committee to finalize the amendments to the draft statute, prepare the network of the rules; and ensure the smooth running of the Action Plan 2003-2004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Plan for 2003 and 2004</th>
<th>The meeting defined a timetable for the implementation of the selected measures and a timetable for implementation of the actions identified:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With the possibility of calendar adjustment by the Permanent Secretariat in collaboration with the Provisional Committee if necessary.</td>
</tr>
<tr>
<td></td>
<td>The meeting recommended the development of a medium-term strategic plan that will constitute the basic document for research funding future activities of the network</td>
</tr>
</tbody>
</table>

- Preparation of the terms of reference (TOR) for consultants by the provisional office: March 2003;
- Recruitment of regional consultants: May 2003;
- Execution of the missions of the three experts, respectively in the three regions in order to make an inventory of research institutes (identification of strengths and weaknesses): June 2003;
- Presentation of consultant reports: July 2003;
- Summary of the report of the three experts in relation to the office and sent to member institutions: August 2003;
- Organization of the 1st workshop at the end of 2003;
### Items on the agenda

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of RAFISMER’s draft statutes and drafting of internal regulations.</td>
<td>It was proposed that the amended statute be subject to review by a lawyer for finalization. This latest version will be resubmitted to the Executive Board.</td>
</tr>
</tbody>
</table>

The President of the Executive Board and the Permanent Secretary of ATLAFCO were asked to draft the Internal Rules by taking into account the amendments to the statutes. The draft will be submitted to the Executive Board prior review by a lawyer.

| Establishment of an action plan for 2003-2004 | Development of a database of experts and fisheries research institutions. It was decided to entrust this task to the three consultants who will be recruited for each of the three main sub-regions (Benguela, Gulf of Guinea and the Canary Islands). These also conduct the identification of focal points will be the partners of the Network and will make an inventory of fisheries research institutes and institutions. |

Organization of workshops, the themes are:
- Fisheries Resource Assessment;
- Monitoring the safety of the marine environment;
- Development of aquaculture;
- Fishing gear technology;
- Dissemination and popularization of research results to the stakeholders in the Fisheries Management sector;
- Enhancement and development of new products. | The Provisional Executive Board and the Permanent Secretariat were invited to combine their efforts to mobilize the necessary funds. |
<table>
<thead>
<tr>
<th>Need for synergy between the activities of the Network and CECAF, and need to pay special attention to shared and straddling stocks in order to understand the functioning of regional ecosystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Schedule Action Plan 2003-2004:</td>
</tr>
<tr>
<td>- Launch of a tender for the recruitment of regional consultants, on July 31, 2003.</td>
</tr>
<tr>
<td>- Recruitment of regional consultants, on September 30, 2003.</td>
</tr>
<tr>
<td>- Execution of expert missions: one month between October and December 2003.</td>
</tr>
<tr>
<td>- Filing of Expert Reports: December 2003</td>
</tr>
<tr>
<td>Definition of terms of reference and recruiting of regional experts</td>
</tr>
<tr>
<td>Regional expert selection procedures.</td>
</tr>
<tr>
<td>Consultation on the formulation of research programs and international meetings</td>
</tr>
<tr>
<td>The Provisional Executive Board confirmed the relevance of the joint programs identified by the constituent meeting and concerning:</td>
</tr>
<tr>
<td>- Shared stocks</td>
</tr>
<tr>
<td>- Marine ecosystems</td>
</tr>
<tr>
<td>- Predictive models of development plans</td>
</tr>
<tr>
<td>- Management of fisheries.</td>
</tr>
<tr>
<td>and found that the implementation of such programs in the network framework's aim is to provide joint results used by ATLAFCO to establish a common management strategy for fisheries in the region, and standardize Member States’ positions in international fora. (This was not possible in the medium and long term, given the stage of development of RAFISMER Network).</td>
</tr>
<tr>
<td>Exchange of researchers and scientific papers</td>
</tr>
<tr>
<td>The Provisional Executive Board confirmed the need for an upgrade of the various research institutes but felt that the exchange of researchers and scientific papers will be considered in the medium term (2004-2005). This phase will be possible only after an inventory is established by the regional consultants.</td>
</tr>
<tr>
<td>Consultations to establish the state of research in the 3 sub-regions</td>
</tr>
<tr>
<td>Miscellaneous items</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
## Items on the agenda

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of the draft statutes and rules of procedure</td>
<td></td>
</tr>
<tr>
<td>At the first meeting of the Executive Board, it was proposed that the</td>
<td>The amendments to the statutes were adopted by the Executive Board by</td>
</tr>
<tr>
<td>amended statutes should be subject to review by a lawyer for finalization,</td>
<td>acclamation. These appear in the balance of the RAFISMER activities, which</td>
</tr>
<tr>
<td>and the latest version should be resubmitted to the Executive Board</td>
<td>will be presented to ATLAFCO, when RAFISMER will hold its 5th session.</td>
</tr>
<tr>
<td>members. It is within this framework that the expert lawyer whose services</td>
<td></td>
</tr>
<tr>
<td>have been selected, introduced the draft statutes. After discussion, it</td>
<td></td>
</tr>
<tr>
<td>was recommended to include the definition of Network members in Article 4</td>
<td></td>
</tr>
<tr>
<td>of the draft statute.</td>
<td></td>
</tr>
<tr>
<td>The amendments to the statutes were adopted by the Executive Board by</td>
<td></td>
</tr>
<tr>
<td>acclamation. These appear in the balance of the RAFISMER activities, which</td>
<td></td>
</tr>
<tr>
<td>will be presented to ATLAFCO, when RAFISMER will hold its 5th session.</td>
<td></td>
</tr>
<tr>
<td>President of RAFISMER shall inform all Network members of the adoption</td>
<td></td>
</tr>
<tr>
<td>of amendments of the statutes and shall specify the quality of the</td>
<td></td>
</tr>
<tr>
<td>Executive Board, elected for a term of 3 years, during the Constituent</td>
<td></td>
</tr>
<tr>
<td>Assembly, meeting in Casablanca in February 2003</td>
<td></td>
</tr>
<tr>
<td>At the first meeting of the Executive Board, the recruitment of a</td>
<td></td>
</tr>
<tr>
<td>consultant had been recommended for a comprehensive inventory of research</td>
<td></td>
</tr>
<tr>
<td>institutions and experts from the RAFISMER member countries. Due to a</td>
<td></td>
</tr>
<tr>
<td>lack of resources, the consultant was not recruited. To do this work, the</td>
<td></td>
</tr>
<tr>
<td>President of RAFISMER appointed a small working group consisting of one</td>
<td></td>
</tr>
<tr>
<td>representative of RAFISMER and one representative of ATLAFCO’s Permanent</td>
<td></td>
</tr>
<tr>
<td>Secretariat. To this end, two forms relating to institutions and experts</td>
<td></td>
</tr>
<tr>
<td>were prepared and sent to member countries.</td>
<td></td>
</tr>
<tr>
<td>Of the 22 countries contacted (35 people contacted), 12 have already</td>
<td></td>
</tr>
<tr>
<td>provided the requested information. A summary of the results was the</td>
<td></td>
</tr>
<tr>
<td>subject of a presentation.</td>
<td></td>
</tr>
<tr>
<td>Establishment of cooperation mechanisms between RAFISMER member institutions and sub-regional, regional and international organizations.</td>
<td>The participants agreed to simplify the experts’ questionnaire to facilitate the collection of information. The work being a scalable one, the database will be supplemented, as RAFISMER grows.</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Consultations between the RAFISMER institutions in terms of research programs formulation.</td>
<td>The importance of a dialogue between the institutions of RAFISMER in the formulation of research programs was highlighted by all stakeholders with a view to a common and shared vision of the issues concerning the region.</td>
</tr>
<tr>
<td>Dissemination of research results to different users in the most appropriate form.</td>
<td>Establishing a website that is specific to the Network and publication of a newsletter to improve communication and dissemination of information.</td>
</tr>
<tr>
<td>Reflections on various topics</td>
<td>Following the presentation by Dr. SATIA, FAO expert on the evaluation of fisheries resources programs, the emphasis was put on communication problems between researchers and the fisheries administrations and the need to create synergies between research institutes and the programs being implemented in the region. The goal is to ensure complementarity between various actions. It was also considered appropriate to better use of research results by the administration and the fishing industry. Solicitation of FAO's support to implement the organization of a training workshop on communication between researchers and the fisheries administrations.</td>
</tr>
</tbody>
</table>
promote the work and activities of existing organizations, such as ATLAFCO, SRFC, COREP, CECAF, ICCAT and SEAFO.

Following the presentation of Dr DJAMA on the ecosystem approach, the lack of information on the different components of marine ecosystems (physical environment, biological component, component related to exploitation, etc.), including those obtained from biological sampling, was highlighted as being a constraint to the implementation of ecosystem models. During the debates that took place on this point, the need to take account of shared stocks in the ecosystem approach was highlighted.

Presentation by Dr. TALL on the valuation of fishery products,

Presentation by Mr. NNA on “Aquaculture: constraints and prospects” in which he identified a number of constraints to the development of aquaculture. The presentation dealt mainly with the lack of political will displayed by the different States in terms of aquaculture, with the low level of qualification of operators, with the lack of knowledge on the biology and ecology of native species, with the problems related to producing quality fingerlings, with the land, institutional, legal and tax issues, and finally with the lack of local industries manufacturing fish feed.

Setting up of a think tank made up of veterinarians, microbiologists, biotechnologists, engineers, food industry, etc., to develop a strategy that can enable African countries to improve the enhancement of value of fishery and aquaculture products.

Definition of an aquaculture promotion mechanism in order to attract investors to the sector.

Launch of studies making it possible to obtain quality food and to produce reliable fry.

Establishment of an action plan for the period 2004-2005

The actions to be conducted were adopted.

- To finalize inventory of institutions and experts;
- To complement the list of focal points;
- to develop terms of reference for consultants to conduct an inventory of research projects and programs being implemented in the region;
- to organize an information meeting involving members of RAFISMER and all organizations working in the region;
- To present to ATLAFCO the balance of the RAFISMER activities.
To have RAFISMER make an inventory of research projects and programs already implemented or being implemented in the West African region, in order to rationalize the various interventions in the region. Moreover, the need to better integrate the projects proposed by donors in national policies relating to fisheries was stressed.

| Various | The Representative of the current President of ATLAFCO drew the attention of the Executive Board on the absolute need to involve more the Anglophone and Lusophone members in the Network activities. |
### Items on the agenda

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the presentation of the annual report, the President of RAFISMER recalled that the first stages of the consultation series were performed through the contacts with the institutions. Data were collected and the results of the work have enabled:</td>
<td></td>
</tr>
<tr>
<td>- The development and publishing of the first directory of research institutions of ATLAFCO member countries (Brochures and CD Rom);</td>
<td></td>
</tr>
<tr>
<td>- The identification of RAFISMER focal points;</td>
<td></td>
</tr>
<tr>
<td>- The start of identification of RAFISMER research priorities;</td>
<td></td>
</tr>
<tr>
<td>- The start of the development of the directory of researchers, experts and technicians from ATLAFCO countries;</td>
<td></td>
</tr>
<tr>
<td>- The design and publication of a guide (booklet and CD Rom) on crustaceans and cephalopods, that will be later extended to all the other resources of the ATLAFCO countries;</td>
<td></td>
</tr>
<tr>
<td>- Preparation and submission to the authorities of the city of Casablanca (Morocco) of the statutes of RAFISMER whose final version was adopted in 2004 in Douala.</td>
<td></td>
</tr>
<tr>
<td>The President also stressed the possibilities of organization in the future, of seminars aimed at strengthening scientific capacities in the following areas:</td>
<td></td>
</tr>
<tr>
<td>i) resource assessment and fisheries management;</td>
<td></td>
</tr>
<tr>
<td>ii) monitoring of environmental quality and of the safety of fishery products;</td>
<td></td>
</tr>
<tr>
<td>iii) dissemination and popularization of scientific findings to stakeholders.</td>
<td></td>
</tr>
</tbody>
</table>
The President stressed the importance of establishing a partnership between RAFISMER and CECAF covering almost the same geographical area. This cooperation will promote synergy and complementarity between these two regional organizations.

The presentation of the balance of activities was followed by discussions focused on:

- **The progress of discussions with FAO to establish RAFISMER-CECAF cooperation in accordance with the recommendation of the 2nd meeting of the RAFISMER Executive Board (Douala, Cameroon, July 2003)**

  Enabling the development of a memorandum of understanding between RAFISMER and CECAF.

- **Progress in the implementation of an ecosystem approach to fisheries in African countries that have introduced the approach (Benguela region) and opportunities on the possibility for RAFISMER to organize seminars on this approach.**

- **Relevance of a continuous updating the directories.**

### 2007-2011 Strategic Research Program

<table>
<thead>
<tr>
<th>General orientations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capacity building and upgrading of fisheries research;</td>
</tr>
<tr>
<td>- Review of national or regional research programs,</td>
</tr>
<tr>
<td>- Harmonization of research methods,</td>
</tr>
<tr>
<td>- Environmental monitoring of the distribution of species within ecosystems,</td>
</tr>
<tr>
<td>- Information systems and national and regional databases.</td>
</tr>
<tr>
<td>3. The promotion of cooperation between research institutes on the one hand, and sub-regional, regional and international organizations, on the other.</td>
</tr>
</tbody>
</table>

The Strategy Plan will be submitted for consideration of the sixth meeting of the Executive Board of Ministers of ATLAFCO after revision based on comments and guidance of representatives of members of ATLAFCO countries and responses to the questionnaire that will be sent shortly.
<table>
<thead>
<tr>
<th>Identification of areas of expertise</th>
<th>Discussions focused on the development of centers of excellence. Some countries presented the strengths of their institutions while expressing their support scientific and technological needs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed activities for 2006-2008</td>
<td>The following actions classified by order of priority were adopted pending the finalization of the strategic program:</td>
</tr>
<tr>
<td></td>
<td>i) Organization of a workshop to develop a comprehensive inventory of the state of research (research institutions, experts, available resources, assistance needs, scientific publications and work, ongoing projects in function of the domains and potential donors).</td>
</tr>
<tr>
<td></td>
<td>ii) Organization of a workshop on ecosystem management.</td>
</tr>
<tr>
<td></td>
<td>iii) Organization of a workshop on fishery resources assessment methods.</td>
</tr>
<tr>
<td></td>
<td>Participants also expressed the wish that in addition to the work related to the activities of the Executive Board, a science day be reserved at the next meetings of RAFISMER for the presentation of the results of the researchers' work. This proposal was considered appropriate by the President of RAFISMER. It was then unanimously approved.</td>
</tr>
<tr>
<td>Other questions</td>
<td>Organization of a scientific conference on the sidelines of the upcoming RAFISMER meetings for the presentation of the results of the work of RAFISMER researchers</td>
</tr>
<tr>
<td>Date and place of the next meeting</td>
<td>Contribution of RAFISMER members to the financing of its activities to ensure the sustainability of the Network.</td>
</tr>
<tr>
<td></td>
<td>Contribution of RAFISMER members to the financing of network activities.</td>
</tr>
<tr>
<td></td>
<td>Organized between June and July 2007 in the Northern area of the Gulf of Guinea, in an English speaking country.</td>
</tr>
<tr>
<td></td>
<td>The Permanent Secretary of ATLAFCO shall start the necessary contacts to identify the country that will host the meeting.</td>
</tr>
</tbody>
</table>
## Summary table of the outgoing Executive Board achievements.

<table>
<thead>
<tr>
<th>Main recommendations of the RAFISMER Executive Board meetings</th>
<th>Follow-up on the recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation and submission to the authorities of the city of Casablanca (Morocco) of the statutes of RAFISMER whose final version was adopted in 2004 in Douala.</td>
<td>Executed.</td>
</tr>
<tr>
<td>Preparation and publishing of the first directory of research institutions in ATLAFCO member countries (Brochures and CD ROMs);</td>
<td>Executed</td>
</tr>
<tr>
<td>Identification of RAFISMER focal points;</td>
<td>Executed in 2004</td>
</tr>
<tr>
<td>Starting the identification of RAFISMER research priorities;</td>
<td>not completed</td>
</tr>
<tr>
<td>Start of the development of the directory of researchers, experts and technicians from ATLAFCO countries;</td>
<td>not completed</td>
</tr>
<tr>
<td>Completion and publication of a guide (booklet and CD Rom) on crustaceans and cephalopods, which will be later extended to all the other resources of the ATLAFCO countries;</td>
<td>First steps made, but the goals of the recommendation were not completed.</td>
</tr>
<tr>
<td>Organization of thematic workshops</td>
<td>Participation of RAFISMER in the symposium's work on &quot;sustainable management of fishery resources in the West African coast&quot; in Agadir, Morocco, on May 16-18, 2006 with the support from the Government of Japan</td>
</tr>
<tr>
<td>Realization of a RAFISMER website and logo</td>
<td>Executed (Presentation to the next General Assembly).</td>
</tr>
<tr>
<td>Signing of a Memorandum of Understanding between RAFISMER and CECAF</td>
<td>Non executed</td>
</tr>
<tr>
<td>Signing of a Memorandum of Understanding between RAFISMER and INFOPECHE</td>
<td>Non executed</td>
</tr>
<tr>
<td>Signing of a Memorandum of Understanding between the SRFC and RAFISMER</td>
<td>Not executed</td>
</tr>
<tr>
<td>Consultations to establish the status of research in the 3 sub-regions</td>
<td>Not executed</td>
</tr>
<tr>
<td>A workshop to develop a comprehensive inventory of the state of research (research institutions, experts, available resources, assistance needs, scientific publications and work, ongoing projects in function of the domains and potential donors).</td>
<td>Not executed</td>
</tr>
<tr>
<td>Organization of a scientific conference on the sidelines of the upcoming meetings of RAFISMER for the presentation of the results of the work of RAFISMER researchers.</td>
<td>Not executed.</td>
</tr>
</tbody>
</table>
Draft Strategic Vision for RAFISMER

Preamble:

In recommending the establishment of a network of research facilities of the ATLAFCO region, the authorities of member countries sought through this initiative several objectives:

- Strengthen cooperation in the field of fisheries research;
- Boosting the upgrade process fisheries research through training and the optimum use of human resources and scientific, techniques and naval equipment existing in the region;
- Have regionally, sufficient knowledge on marine ecosystems and fish stocks and build global databases to obtain particularly biological, technological and socio-economic indicators, which are essential to decision-making in management of fisheries resources.

The main mission of RAFISMER is to ensure the capacity and skills of the region in the field of research and to work through scientific cooperation and exchanges in the development of a strategy capable of enabling countries to achieve the above objectives.

Previous meetings of the network's office had reviewed and analyzed the strategies then conducted by the various countries in fisheries research and marine science.

The clear conclusion is that fisheries research faces many constraints at the country level commuted ATLAFCO, namely:

- Deficiencies in financial and human resources,
- The weak coordination between research institutions in the region to support cross-border issues, the regional and sub-regional levels.

Based on this finding and to allow the upgrade between different countries in the region through training and exchange of expertise, information and documentation between the countries, it was considered useful to carry out:
- The establishment of scientific excellence and areas of competence centers according to the specificities and means of each country;
- The development of common approaches to conservation of marine ecosystems and fisheries management.
- Defining research priorities at each of the three sub-regions.

The holding of this General Meeting of RAFISMER with the participation of a large majority of network members is the expression, after several years, of a concrete commitment to inject new momentum to our network.

This dynamic must be consolidated with a strategic vision that is in the alignment of the original objectives and expectations of the Ministerial Conference taking into account the current fisheries and environmental issues challenging African research institutions in the region to provide scientific solutions and immediate and future techniques.

Like all parts of the world, these challenges can be summarized by climate change, the decline of many fish stocks, the major effects of pollution, population growth and finally with food safety requirements.

It should be recalled that from the bio-geographic standpoint, the countries of the ATLAFCO region are grouped around three large marine ecosystems, which although they are connected, require ecological subdivision, namely:
- The "Canary Current" sub-region with 8 members:
- The "Gulf of Guinea Current" sub-region with 12 member countries
- The sub-region of the "Benguela Current" including two members: Angola and Namibia.

Despite this bio-geographical diversity, the countries of these three sub-regions share the same concerns and the same objectives, namely:
- Ensuring food security, job creation and poverty reduction
- Regulation of human pressure on fish stocks and ecosystems and rationalization of operations
- Adapting to global changes (climate change and health and other normative constraints dictated by international markets)
- The development of fisheries research and capacity in marine science and training and research to allow themselves to provide the best expert advice for the benefit of decision makers on the previous points on solutions.

The research will have to adapt to this changing environment and be able to analyze the immediate and future effects.
Regional environmental context:

**Threats of climate change**

The Climate Agreement in Paris reached at the end of the latest international climate negotiations mark a turning point towards a green economy in the world and pays attention to issues related to ocean conservation by mentioning in its preamble "that it is important to ensure the integrity of all ecosystems, including oceans ... " highlighting the importance of the integrity of the oceans as part of the climate balance.

The West African region is considered as one of the areas of high sensitivity to climate change. Following the Paris agreement, the specific vulnerability of the region will certainly be reaffirmed in the light of emerging and significant challenges it will face. The exploitation of marine ecosystems, through the services they provide, is both an asset but also a pressure factor and vulnerability of coastal states to climate forcing.

While there is uncertainty as to the trends and impacts of climate change on biotic and abiotic components of large marine ecosystems in the region, some strong assumptions about the potential impacts of these changes on the Atlantic, however, should be taken into consideration in developing strategies for adaptation and mitigation of climate change.

The following changes are under way:

- **Warming of the Atlantic Ocean**: According to the IPCC 2014 report\(^1\), due to the climate change planned by the middle of this century and beyond, the redistribution of marine species in the world and the reduction of marine biodiversity in sensitive areas will affect the sustainability of productivity of fisheries and other ecosystem services (confidence level: high), with major risks to food security in tropical countries. Most evidence suggests in fact that the ocean warming could lead to a relocation of tropical species to more temperate latitudes or to deeper and cooler waters and to the development of invasive species (gelatinous micro and macro algae ...). Projections in terms of rising sea surface temperature under different scenarios of the IPCC 2014 do provide projections of increased climate of + 0.55 ° C and + 0.30 ° C respectively in the sub regions of the Canary and Benguela currents for the RCP2.6 scenario (moderate scenario set as goal at the COP21 conference on climate change) and of + 0.82 ° C and +0.71 for RCP8.5 scenario (extreme) by 2039. The oceanic temperature variation should reach + 0.97 ° C and + 0.07 ° C for the RCP2.6 scenario (moderate) and + 3.18 ° C / + 2.52 ° C for RCP8.5 scenario (extreme) respectively in the two regions in 2099.

- **Uncertainty on trends of the East edge (Canary and Benguela) and equatorial Atlantic upwellings**\(^2\,\,3\,\,4\): the future development of the activity of upwelling in the sub-regions remains poorly known and probably depends on global warming scenarios and emissions reductions of greenhouse gas obtained under the Paris Agreement.

- **Acidification of the Atlantic Ocean**: one quarter of the CO2 emitted by human activities is absorbed by the oceans. Yet emissions of greenhouse gases currently exceed the capacity of the ocean pump and do alter the physicochemical properties of water bodies, causing an acidification whose first impacts are already visible in the area\(^5\). The evolution of the pH of ocean water has potentially negative effects on organisms with calcareous structure (plankton, corals or shellfish, especially as many of these species cannot move or move in the wrong direction in search of better ecological conditions.

- **Enlargement of the Eastern Atlantic oxygen minimum zones**: recent studies report an increase in oxygen minimum zones (OMZs) in all oceans. The oxygen minimum equatorial of the Equatorial Atlantic area is the one that has been most changed over the last 50 years\(^6\). These oxygen-poor areas can alter the distribution and abundance of marine species \(^7\) and on the biogeochemical functioning of ecosystems\(^8\)\(^9\).

- **Rising sea levels, flooding of coastal environments and coastal erosion**: assuming a sea level rise exceeding 1m, combined with swells generated by storms, the floods will cause irreversible damage in the short and medium terms and modify the coastal geomorphology. Particular attention should be paid in this regard to island states and countries with large coastal urbanization. The operation of some coastal habitats of ecological importance can also be modified as well and have unpredictable consequences in the present state of knowledge on the reproduction of fish stocks, the carbon storage capacity (e.g. mangroves) and coastal protection.

**Threat of overfishing**

According to the latest FAO report on the state of world fisheries\(^10\), 48% of major stocks exploited and evaluated in the Central Eastern Atlantic zone are at biologically unsustainable levels and the remaining 52% are still at sustainable levels. The largest share of biomass and catch of the area comes from unstable small pelagic stocks (sardines from Moroccan waters in this case). The South Atlantic area is itself considered by FAO as a typical fishing area with a general downward trend in catches and since the early 1970s, the reduction rate reaches 50% of the volume of catches. The most important resources (sardine and hake) are currently fully exploited or even overexploited despite elaborate management measures applied in this area.

---


Figure 1. (A) Projected global redistribution taken maximum potential of about 1000 species exploited fish and invertebrates. The projections compare 2001-2010 and 2051-2060 10-year averages, based on a single scenario of emissions under a medium and high warming scenario, without analysis of potential impacts of overfishing or ocean acidification. (B) Summary of projected changes in crop yields (mainly wheat, corn, rice and soybeans) due to climate change during the twenty-first century. The sum of the data for each period is 100%. The graph presents projections for different emission scenarios for the tropical and temperate regions, and for combined adaptation and non-adaptation cases. Changes in crop yields are related to the levels of the late twentieth century. (Source: IPCC 2014)

**Threat of pollution on marine and coastal biotopes.**

The border diagnosis made in the program for the governance of Large Marine Ecosystems (UNEP), clearly shows the impact of rapid urban population, urbanization of the coastline, and pollution of rivers as sources of pressure on the marine environment in the region. The urban and industrial discharges into the marine environment are sources of contamination by trace metals and other contaminants whose eco-toxicological impact on humans and marine biodiversity is unquestionable.

Maritime traffic and offshore oil production in some countries in the ATLAFCO region also represent an important risk factor for marine ecosystems in the region.
Combined with the current impacts of human activities, the threats posed by climate uncertainty on fish farms are challenging more than ever policy makers and researchers, (these latter as providers of knowledge and prospects), as to adaptive management models to be put in place to ensure the sustainability of fish farms and other ecosystem services.

Climatic effects will increase the stress on overfished stocks and ecosystems already affected by human activities. So today, more than ever, it is important to strengthen the observation and research capacity in our sub-regions where the decreasing yields of some stocks may already be an indicator of ecosystem changes.

Faced with food demand and a deficit in terms of fisheries catches, aquaculture represents a promising alternative activity. FAO’s forecasts do say that the development of aquaculture in tropical and subtropical regions such as West Africa, could benefit from climate change. Recognizing this opportunity, ATLAFCO, with the support from the Japanese Foundation for International Cooperation in Fisheries (OFCF), organized in Libreville (Gabon) in 2012, a strategic planning seminar for promoting aquaculture development in member countries and at the end of which was adopted the "Libreville Roadmap for sustainable aquaculture in Africa."

However, if the production of aquaculture operations in these warmer regions could potentially increase with better conditions (strong rates and long growth period, availability of new fish farming areas that used to be too cold in other times...), extreme weather events (floods, cyclones) could however cause damage to fish farms and hinder the development of this sector.

The risk also relates to food safety and animal health related to conflicting uses of the marine environment. For many countries in West Africa, exports of fishery products have become economic and social national development challenges. The human and animal health risk is one of the constraints facing the development of the fisheries sector (with its fisheries, aquaculture and marketing channels components).

This is particularly the case regarding the standards and international requirements relating to the conditions of production and marketing of live bivalve molluscs and other marine products (such as those in force in the EU market, OIE requirements and Codex Alimentarius).

Understanding these risks and facing them therefore requires the establishment of monitoring programs whose purpose is to provide the information base and the scientific tools that are necessary for the evaluation of the status of the marine environment in general and of the coastal environment in particular, as well the exposure levels of human and of wild herds and livestock to chemical and microbiological contaminants, to toxins of phytoplankton origin, and to other pathogens.

This implies for the States and research institutions, given the level of development of countries in the region to unite their efforts for an integrated management approach taking into account all risks and assessing the full range of consequences for developing (adaptive and mitigation) management responses at appropriate scales.

The scientific knowledge and expertise developed in different areas will be a major challenge over the coming decades.
Strategic areas for RAFISMER’s contribution to strengthening regional and subregional research capacities adapted to current needs and future challenges.

Its statutes define RAFISMER as a permanent body for reflection, dialogue and cooperation in fisheries research and marine science, whose goals are:

(i) to promote scientific research in collaboration with similar sub-regional, regional and international organizations;
(ii) strengthening cooperation between African research institutions;
(iii) strengthen skills in the fields of scientific and technological research into fisheries and marine science;
(iv) disseminating research results to different users in the most appropriate form;
(v) improving the training of member country researchers.

To this end, the network sets for itself as essential missions:

(i) the facilitation of the exploitation of the resources offered by bilateral and multilateral agencies for scientific and technical cooperation without any exclusivity;
(ii) helping to harmonize the needs, means and possible services to be provide in terms of scientific and technical cooperation;
(iii) contributing to an inventory of the material necessary for the actions to be undertaken;
(iv) studying and promoting all forms of cooperation, by developing all efforts so that this structure of dialogue, consultation and coordination is recognized by all international agencies;
(v) promoting cooperation agreements and supporting teams on the basis of functional and organic relationships with the competent authorities of the countries concerned.

Article 7 of the Statutes of RAFISMER states that its General Meeting sets the strategic direction and program of the network in accordance with its objectives and scope of its missions.

RAFISMER will therefore have to fully play the role of catalyst and integrator of the regional cooperation platform that was assigned to it and must therefore reflect on the levers that can be accelerators of South-South cooperation in the region and that could be structured in three large pillars of the strategic action of the network.

- Pillar 1: Exchange of expertise, training, workshops, working groups, seminars ...
- Pillar 2: Pooling of resources, strengthening of logistical capabilities
- Pillar 3: Interface for the development of initiatives, research and studies projects.

The future regional and sub-regional uniting projects of the Network will be defined in light of contextual developments across the region that have been listed above, and for which one will have to put in this regard a greater emphasis on the strengthening of joint efforts, on the development and sharing of knowledge, as well as capacity building.

The following proposals could constitute some of the strategic projects that can be conducted together. These pilot proposals are submitted to the members as lines of thought. These proposals could represent the scope the next two-year action plan to be presented more precisely during the
discussion sessions of the general assembly of the Network to be held in Casablanca on February 11 and 12, 2016:

The pilot strategic projects are proposed as follows:

*The ocean forecasting capabilities for the adaptation of fish farms to climate change:*

- **Large scale project 1.** Mobilization of RAFISMER as part of the International Climate & Ocean platform and other initiatives for a better integration of the role of oceans in the climate system and in order to achieve unified positions and recommendations of the West African research intended to supply national and regional action plans for adaptation to climate change and the fight against its effects. These positions and recommendations will underpin the action of RAFISMER in support of fisheries and environmental policies in West Africa during the COP22 conference.

- **Large-scale project 2.** Strengthening of the oceanographic observation and forecasting capabilities in order to better understand the meaning and extent of changes in marine ecosystems. The focus will be on the strategy of strengthening of oceanographic observation and forecasting means (*in situ* observations, remote sensing, reanalysis data, modeling, ...) in the region. This would include, by promoting the transfer of knowledge and development of digital tools and oceanographic observation, contributing to the emergence of a regional platform for product development and operational oceanographic monitoring, forecasting and alert meeting the needs of decision makers and stakeholders of the fisheries sector. Some potential already exists in the region. The goal is to help reduce their fragmentation by looking for synergies.

*Scientific and technical support capabilities for the development of West African aquaculture.***

- **Large-scale project 3.** Encouraging the emergence of a West African multi-stakeholder platform for research on aquaculture. From the discussions held during a previous reflection workshop organized by ATLAFCO on the aquaculture sector in the region, it turns out that this sector is characterized by a wide variety of activities and levels of development with regard to the scientific and technical research structures and capacities of the countries. This project will make it possible to focus initially on the scientific and technical issues, aquaculture development options and the most appropriate solutions to support aquaculture in the region. It will make it possible in the medium and long term to strengthen and structure partnerships through collaborative projects and to stimulate cooperation and coordination between decision makers, the aquaculture industry, and the R & D players in West Africa.

*West African fisheries stocks and systems monitoring capabilities*

- **Large scale project 4.** Strengthening statistical coverage capabilities, biological monitoring and assessment of stocks and fisheries. This project will be developed as part of a concerted action with CECAF in order to increase synergies with this regional organization, taking into account its mandate and by taking into account the recommendations of its SCS (Draft Memorandum of agreement with the CECAF).

The joint actions, needs and offering in terms of scientific, technical and logistical assistance will be discussed for the preparation of the biennial plan of action that will also specify the conditions of
implementation and the budgetary resources necessary for the implementation of the various activities.

The mechanisms and sources of financing for RAFISMER will also be reviewed by the General Assembly. The Network will provide for this purpose substantial resources to fully assume the role of catalyst and integrator of the regional cooperation platform. The commitments of the institutional and financial partners also need to be negotiated and obtained for longer-term support to enable the RAFISMER to support the sustainable development efforts of its member states.

*Opportunities for collaborative action that can support the dynamics of the large scale projects.*

RAFISMER was also established to help position the member institutions in the global environment of the scientific and technical research in West Africa. The integration of the Network in the regional and international programs and projects working towards the same goals in the region is important. This will require to seek complementarities and synergies between RAFISMER and other regional organizations, including CECAF, SRFC, COREP, and ICCAT as has been repeatedly stressed in previous meetings. The potential offered by these partnerships is real and should be realized by the protocols.

Given the mandate of CECAF and the mission of RAFISMER, some collaborative actions coordinated between the two organizations, that cover almost the same geographical area, will certainly contribute effectively to the achievement of their common goals. A Memorandum of Understanding between the two organizations could be signed as soon as possible to this end. RAFISMER, with the support of ATLAFCO, might as well join its efforts to those of CECAF to contribute to skills building involved in the different CECAF working groups.

The last technical reviews of the reports of the various sub-groups of CECAF, undertaken in 2014 and 2015 by a group of independent experts to review the results that ensued, has indeed identified some shortcomings that are common to the four working groups requiring data improvement efforts and the application modeling approaches that are more advanced from a statistical point of view and that are adapted to the different types of stocks and fisheries.

The improvement of data was deemed to be priority over the development of more sophisticated approaches and even constitutes a prerequisite according to the findings of the expert group. The available information for evaluating stocks varying according to the areas and fisheries CECAF, the lifting of certain data constraints would need technical support, according to the expert who also stressed the need to encourage procedures management that are consistent with available information.

The Scientific Sub-Committee of CECAF, meeting in its 7th session (Tenerife, Spain, 14-16 October 2015), invited the various sub-groups of CECAF, following the conclusions of this expertise, to explore alternative evaluation methods at future meetings, looking for ways to train members of the working groups for the appropriation of the methods and/or evaluation approaches used based on available data.

Coordination of the actions RAFISMER and of CECAF could thus contribute to reducing the gap in terms of data and development of fishery assessment model skills.

By signing the "Ocean and Climate" Declaration in Dakar on the eve of the COP21 on Climate Change, several research institutions in African countries expressed their support to the spirit of the "Ocean and Climate" initiative and sent a strong message to policy makers about the urgent need for
monitoring, evaluation and monitoring of the key parameters of the marine environment of African states bordering the Atlantic tropical, on the one hand, and in terms of the increased need for the assessment of the impact of climate change on the sectors of fisheries and the marine environment in general.

Membership in the “Ocean and Climate” initiative should be extended to all ATLAFCO countries, policy makers and research institutions to mark the commitment of the African States so as to address the challenges related to climate change in the region and unify their position at the COP22 to be held in Marrakech on the African continent in an ATLAFCO member country.

Regional networks aiming to strengthen the technical capacity and expertise of African countries in particular on the issue of safety such as the HANA network on phytoplankton and biotoxins and the RAF project of IAEA on chemical and radioactive pollution involving several African countries including the RAFISMER member countries (Morocco, Senegal, Cameroon, Nigeria, Namibia, Côte d’Ivoire ...) do already exist and experience and resources can be capitalized as part of RAFISMER.
**Participants List**

**Angola**
Mme Filomena Vaz Velho  
Director of the National Institute of Fisheries Research  
Tel.: +244940130820  
E-mail: menavelho@gmail.com

**Benin**
M. SOHOU Zacharie  
Directeur de l'Institut de Recherche Halieutique et Océanographique du Bénin (IRHOB)  
Tel.: +229 97072057  
E-mail: zsohou@yahoo.fr

**Cameroon**
Mr. Jules Romain NGUEGUIM  
Chef de Station spécialisé de recherche halieutique et océanographique de Limbé  
Cameroon.  
Tel.: +2376777 9062  
E-mail: njules_romain@hotmail.com

**Côte d'Ivoire**
Mr. Bamba Siakabarthélémy  
Directeur du Centre de Recherche Océanographique  
29, Rue des Pêcheur - BP V 18 ABIDJAN - Côte d'Ivoire.  
Tel.: +225 21 35 64 48/+225 08 08 47 23  
E-mail: cro-ci@hotmail.fr  
bambasb@hotmail.com

**Congo Brazzaville**
Mr. Atsango BENOIT CLAUDE  
Directeur de l'aménagement des pêcheries maritimes  
Ministère de la Pêche et de l'Aquaculture - Tour Nabemba15ème étage - Brazzaville - Congo  
Tel.: +242 05 536 97 93  +242 06 613 13 29  
E-mail: atsangoclaude@yahoo.fr

**Ghana**
Paul Bannerman  
Deputy Director an Head of Research  
Minister of fisheries & aquaculture development  
P.O.B * 630 ACCRA - GHANA  
Tel.: +233 244 794859, Fax: +233 302 208048  
E-mail: paulbann@hotmail.com

**Guinea**
Mr. Idrissa Lamine BAMY  
Chercheur Halieute au CNSHB  
Ministère de la Pêche et de l'Aquaculture et de l'économie Maritime, Centre national des sciences Halieutique (CNSHB) – Guinée  
Tel.: +224 622026822 / +224 664 30 51 46/ +224 622 26 03 72  
E-mail: ibamy@gmx.com

**Guinea Bissau**
M. VictorinoAssau NAHADA  
Directeur Général du Centre de Recherches Appliquées à la Pêche (CIPA)  
Tel.: +245966630158  
E-mail: Via_nahada@yahoo.fr  
willvanah06@gmail.com

**Liberia**
Mr. D. Wisseh Kay  
Director Research & Statistics Division - Bureau of national fisheries - Ministry of Agriculture - Liberia  
Tel.: +231 886561193 / +231776066416  
E-mail: d.wissehkay@yahoo.com
MINISTERE DE L'AGRICULTURE ET DE LA PECHE MARITIME

Mme Zakia DRIOUICH
Secrétaire Générale du Département de la Pêche Maritime
Tél : + 212 05 37688261/64
Fax : + 212 05 37688263
E-mail : driouich@mpm.gov.ma

Mme Zahra ROCHDI
Directrice De La Coopération Et des Affaires JuridiquesDépartement de la Pêche Maritime
Tél : + 212 05 37688195/96
Fax : + 212 05 37688194
E-mail : rochdi@mpm.gov.ma

M. Youssef EL OUATI
Chef de la Division de la coopération, Département de la Pêche Maritime
Tél : +212 0537688162
Fax : +212 0537688161
E-mail : elouati@mpm.gov.ma

INSTITUT NATIONAL DE RECHERCHE HALIEUTIQUE (INRH)

M. Abdelmalek FARAJ
Président / RAFISMER
Directeur de l’INRH
2, Bd Sidi Abderrahmane – Ain Diab - Casablanca
Tél : +212 (0)522397385
Fax :+212 (0)522397388
E-mail : faraj@inrh.ma / secretariatdg1@inrh.ma

Souad KIFANI
Secrétaire Général de l’INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : kifani@inrh.ma

Mounir ITAOUI
Chef du Département d’Appui à la Recherche INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : itaoui@inrh.ma

Mohamed MALOULI IDRISI
Chef du Département des Ressources Halieutiques INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : malouli@inrh.ma

Karim HILMI
Chef du Département d’Océanographie et d’Aquaculture INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : hilmi@inrh.ma

Samir BENBRAHIM
Chef du Département Qualité et Salubrité du Milieu Marin INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : benbrahim@inrh.ma

Mohamed IDHALLA
Chargé du Département d’Aquaculture INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : idhalla@inrh.ma

Said TALEB
Chef de la Division Juridique INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : taleb@inrh.ma

Rachida HOUSSA
Chef du Centre d’Information et de la Documentation INRH
Tel : +212 (0)522397385
Fax :+212(0)522397388
E-mail : houssa@inrh.ma

Mauritania
Institut Mauritanien de Recherche Océanographique et des Pêches (IMROP)
M. Mohamed M’Bareck OULD SOUEILIM
Directeur de l’IMROP - B.P. 22 Nouadhibou
Tél. : (+222) 45 74 51 24 / 53 79 / 50 23
Fax : (+222) 45 74 50 81
E-mail : mbarecks@yahoo.fr

M. KHALLAHI Brahim
Conseiller Scientifique IMROP
Tél. : (+222) 22 42 10 68
E-mail : medfall_khall@yahoo.fr
Namibia
M. Johannes Andries Holtzhausen
Chef FisheriesBiolgist (Sub- Division
Environment) NatMIRC - National Marine
Information Research Institute, swakopmund
Tél : + 264 64 410 1155 (W)
+ 264 64 812654440
E-mail : Hannes.Holtzhausen@mfmr.gov.na

Nigeria
Dr. Augustine OKAEME
Executive Director of Institute for Freshwater
Fisheries Research (NIFFR), New Bussa, Niger
State, Nigeria.
Tél : + 234080 54 79 38 85
E-mail : nkadiokaeme@yahoo.com

Democratic Republic of
Congo - DRC -
Prof. MUTAMBWE SHANGO
Université de Kuyhusa / Ministère de
l’Agriculture et Elevage
Tél : + 2438 15 83 03 47
E-mail : mutambwe@yahoo.fr
mutambue1@gmail.com

Sao Tome and Principe
Dra Mirian Gorot GmesCravid
The Department of Fisheries Research (Direccas
das pescas) Sao Tomé et Principe
Tél : + 2399 85 00 91
E-mail : miriangomescravid@gmail.com

Senegal
Massal Fall
Directeur du Centre de Recherche
Océanographiques de Dakar (CRODT / ISRA) -
ISRA, Pôle de Recherche de Hann (ISRA/ PRH),
Dakar
Tél : + 221648333 -
+ 22163992 -
+ 221 63689
E-mail : massal.fall@gmail.com

Sierra Leone
Dr Raymond G Johnson
Responsible of the Institute of Marine Biology
and Oceanography (IMBO) Fourah Bay College
(FBC), University of Sierra Leone (USL), Mount
Aureol, Freetown, SIERRA LEONE
Tél : + 232 76 62 93 55
E-mail : raymond12001@yahoo.com

Gabon
Mr. Jean Hervé MVE BEH
Responsable du laboratoire d’hydrobiologie et
d’ichtyologie - Institut de Recherche
Agronomiques et Forestières
Tél : +241 07 54 18 27
E-mail : woleuntem@hotmail.com
Jh_mve@yahoo.fr

ATLAFCO
Abdelouahed BENABBOU
Executive Secretary - ATLAFCO
Tél : +212 5 30 77 42 21
Fax :+212 5 37 65 18 10
benaboucomhafat@gmail.com
secretariat.comhafat@gmail.com

Atsushi ISHIKAWA
Japanese Expert- ATLAFCO
Tél : +212 5 30 77 42 21
Fax :+212 5 37 65 18 10
secretariat.comhafat@gmail.com

Mohammed HADDAD
ATLAFCO
Tél : +212 5 30 77 42 21
Fax :+212 5 37 65 18 10
secretariat.comhafat@gmail.com

Abdenaji LAAMRICH
ATLAFCO
Tél : +212 5 30 77 42 21
Fax :+212 5 37 65 18 10
secretariat.comhafat@gmail.com
Hosts:

M. Nokamura Yoshiaki
Représentant de l'Ambassadeur du Japon au Maroc
Tél : 0537.63.17.82 à 84
Service consulaire : + 0537.63.17.85
Fax : + 0537.75.00.78

Mme FRANÇOISE GAIL
Centre National de Recherche Scientifique Plateforme Océan Climat - Paris France
Tel : +33631868369
E-mail : francoise.Gaill@cnrs-dir.fr

Mme Merete Tandstad
FIROFAO /COPACE Italie - Fishery Resources Officer Marine et Aquaculture Resources Use & Conservation Division FAO /COPACE
Tél : +39 0 6 57 05 2019 - + 39 348 8704374
E-mail : Merete.tandstad@gmail.com

Mme Rachida MESSOUDA
Réseau Africain de la Femme de la Pêche
Tél : +212633066117