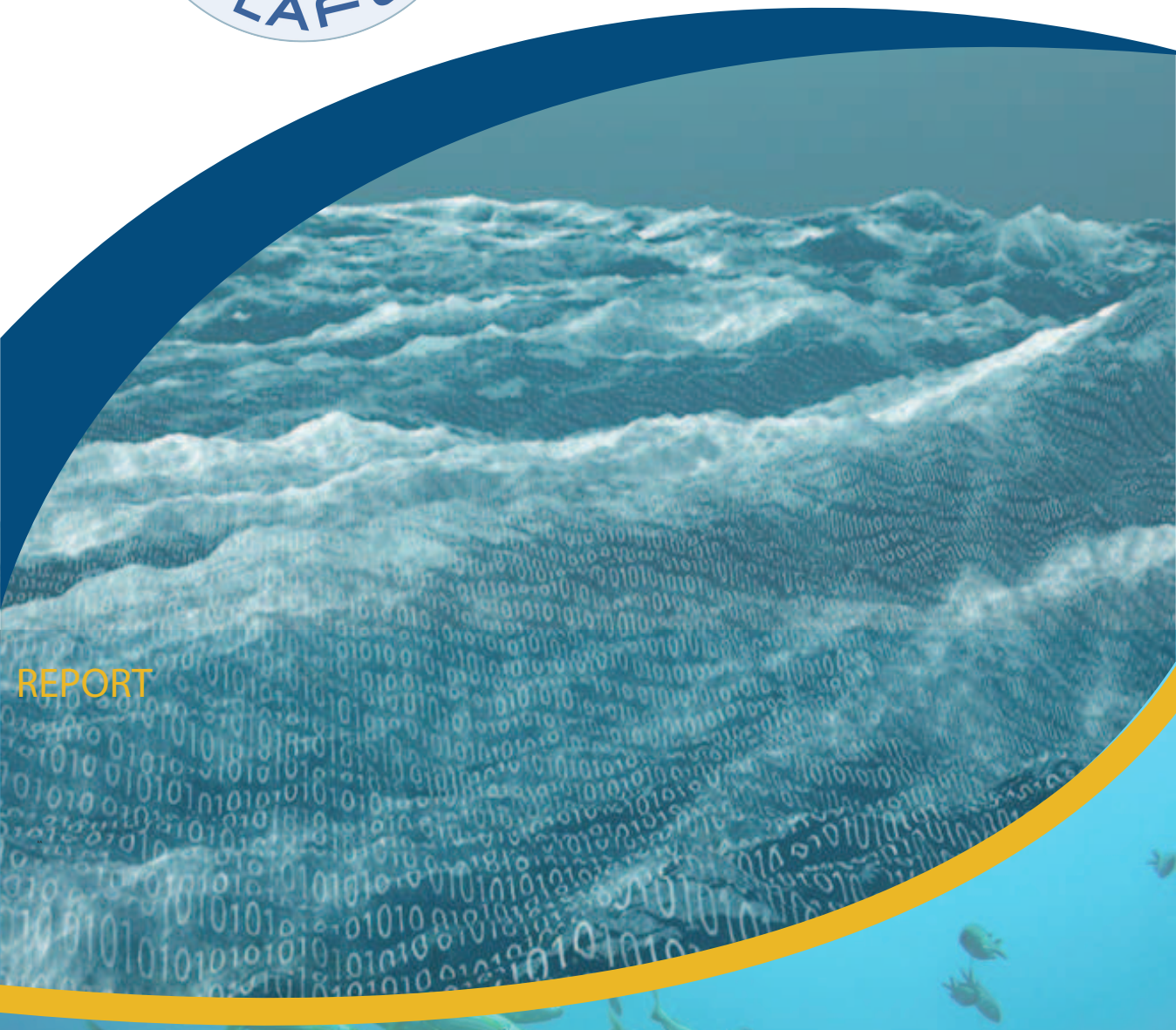
MINISTERIAL CONFERENCE ON FISHERIES COOPERATION
AMONG AFRICAN STATES BORDERING
THE ATLANTIC OCEAN



REPORT

Workshop

"Information and Communication Technologies: What role in achieving sustainable fisheries in the ATLAFCO zone?"

Tangier, 4-5 July 2019

I- INTRODUCTORY NOTE

The world situation of fishery resources is deteriorating from year to year. According to FAO, the proportion of fish stocks exploited at a biologically sustainable level increased from 90% in 1974 to 66.9% in 2015, while stocks exploited at a biologically unsustainable level increased by 10% in 1974 to 33% 2015.

This development is the result of many decades of uncontrolled exploitation of the apparently inexhaustible fisheries resources, unethical fishing practices and degradation of the marine environment. With advances in technology and increasing coastal population, this trend is not about to be defeated if additional efforts are not undertaken for effective implementation of the measures taken by the international community to address them.

The overfishing has obviously costs as well economic, social and environmental. Interrupting this process and giving stocks time to regenerate would increase long-term returns for this sector. Such action is needed to stabilize both fishery resources and the fisheries sector. On the other hand, it is essential to think about alternative solutions and measures taking into account all the dimensions (environmental, socio-economic, political, cultural ...) in order to find the durable and effective solution.

In this context, Information and Communication Technologies (ICT) could be a powerful lever to accelerate progress in achieving sustainable fisheries. They are today a great hope to radically end the over-exploitation of fish stocks or at least to limit their pace and to slow down the deterioration of the marine environment.

Thus, the advent of ICTs would be able to introduce into fisheries management tools whose application would ensure the sustainable exploitation of marine resources and the marine environment.

The question we will be addressing during our meeting is Information and Communication Technologies: *Can they, and should they, play a role, and which, both for the safeguarding of the fish heritage, its protection and even its valuation*? In other words, do new technologies make it possible to consider the problem of the scarcity of fisheries resources differently? Or how could ICTs contribute to the international community's efforts to sustain fish stocks?

Before addressing this issue and in order to fully understand the context of the use of ICT in the marine sector, it seems important to us :

- On the one hand to review the main threats facing marine resources in general and fisheries in particular and which seriously jeopardize their sustainability
- On the other hand, to clarify the scope and impact of the main uses / applications of ICT tools in the management of marine resources in order to stop their degradation and ensure its sustainability.

Then it will be necessary

- To clarify the problem of ICTs in the dynamics of fisheries management and related activities**,** particularly in the context of countries with a level of development comparable to those of the ATLAFCO zone.

Finally, we will try

- To propose ways for an adequate implementation of the applications that can effectively contribute to the sustainability of marine resources in the Region**.**

II- INTRODUCTION

1. A workshop under the theme **'' Information and Communication Technologies: What role in achieving sustainable fisheries in the ATLAFCO zone? ''** was held on 4 and 5 July 2019, in Tangier (Morocco)

2. Attended this meeting

- The delegates of the following Member States: Angola, Benin, Cabo Verde, Cameroon, Congo, Ivory Coast, Gabon, Gambia, Ghana, Guinea Bissau, Guinea, Equatorial Guinea, Liberia, Morocco, Nigeria, Senegal, Sierra Leone, Togo;
- INRH;
- FAO-RSN;
- GFCM;
- Sub-regional organizations FCWC, COREP and SRFC;
- Representatives of civil society: MOFSA;

The list of participants is attached to ANNEX I.

OPENING CEREMONY

3. Opening the meeting on behalf of Mr**. Kobenan Kouassi ADJOUMANI**, Minister of Animal Resources and Fisheries of the Republic of Côte d'Ivoire and acting President of ATLAFCO, Mr. **Diomadé Baba Maxime** Administrator of the Fisheries Monitoring Center, thanked the Kingdom of Morocco for the organization of the conference, and congratulated the Secretariat of the ATLAFCO for the quality of their organization. He urged all participants to be strongly involved in the successful completion of the work, and declared the opening of the work.

4. He then stressed the importance of this meeting and congratulated ATLAFCO on this initiative for the development of sustainable fisheries because of the economic and social importance of this sector for the Member States.

5. He finally declared open the work of this workshop.

6. In his introductory statement, Mr. **Mohamed BENBARI**, Director of the Control of Maritime Fisheries Activities, expressed the wish, on behalf of the Moroccan Minister of Agriculture, Maritime Fisheries, Rural Development and Water and Forests, the welcome representatives of ATLAFCO member countries, as well as the distinguished guests at the workshop.

7. He emphasized that the Kingdom of Morocco attaches paramount importance to the management of its fisheries resources and their sustainability, which is a major focus of the "**Halieutis"** strategy, and makes extensive use of ICT.

8. He recalled that the Department of Fisheries of Morocco has an administrative entity coordinating the control of fishing activities, an updated legal platform, operational procedures and methodologies, monitoring by VMS, and advanced electronic tools for tracking catch traceability.

9. He expressed the hope that the participants would have fruitful exchanges

10. The floor has been extended to Ms. **Eliana HABERKON** from the FAO. She thanked ATLAFCO for the invitation addressed to associate her in this meeting which deals with an important topic for the sustainable development of the fisheries sector in the world and in Africa.

11. She reminded the importance of ICTs for the sustainable management of fisheries resources. In congratulating ATlafco for this initiative, she recalled the availability of FAO to strengthen its collaboration with RFMOs for fruitful cooperation.

12. Mr. **Abdelouahed BENABBOU,** Executive Secretary of ATLAFCO thanked the Moroccan authorities through Mr. **Aziz AKHANNOUCH**, Minister of Agriculture and Fisheries of Morocco, for his constant support to the ATLAFCO and its permanent commitment to cooperation in Africa.

13. He recalled that this workshop is part of the ATLAFCO action plan for 2019 and is intended as a contribution to the efforts of the international community to promote sustainable fisheries, and the full potential of the fisheries sector for the economies of the Member States.

14. He then mentioned that the purpose of this meeting is to organize a forum for information and exchange of views among the participants on the various issues related to the promotion of sustainable fisheries through the introduction of ICT in management of fisheries resources.

15. He thanked Côte d'Ivoire for its outstanding presidency of ATLAFCO, the OFCF for its support and accompaniment, and the sub-regional organizations for their cooperation.
16. The conduct of the workshop was unanimously entrusted to Mr**. Emile ESSEMA**, Executive Secretary of the Regional Fisheries Commission of the Gulf of Guinea (COREP).

III- AGENDA

17. A round table allowed each participant to introduce themselves.

18. The agenda was discussed and adopted unanimously **(ANNEX II).**

IV- CONDUCT OF WORK

19. The work was carried out in plenary and the meeting followed various presentations that revolve around the following:
- The main threats to the sustainability of marine resources;
- The importance of communication in fisheries governance;
- The use of ICTs for the rational management of fisheries;
- The digital situation of ATLAFCO's area countries.

20. 2 presentations of **Section 1** opened the cycle of presentations, under the theme of threats on the sustainability of fisheries.

- **The degradation of marine resources: overfishing**
  By Mr. Abdelouahed BENABBOU, Executive Secretary of ATLAFCO

  The world fishery resource situation is deteriorating from year to year; this situation is even more visible in developing countries that sometimes suffer from overfishing (excessive fishing, legal or illegal) as inevitable. This situation is not without social, economic and environmental consequences. If this trend persists, it is likely that the consequences will be disastrous, especially for so-called developing countries, for which fisheries resources are a vital component of food and nutritional security.
  It is therefore more than urgent to reverse this trend. Due to the high potential of ICTs, the introduction of ICTs, in addition to the already established solutions in fisheries management, could be beneficial in the fight against overfishing.
  Mr. Benabbou's presentation was illustrated by a video documentary.

- **"Communication is key: A new approach to fisheries governance challenges. The RSN case".**
  By Ms Eliana HABERKON – FAO (**FIAP**)
  By taking the example of the RSN (Regional Fishery Body Secretariats' Network) coordinated by FAO RSN Secretariat, Ms Eliana HABERKON demonstrated that communication has become a key element for successful planning and implementation of fisheries management policies and programs, mainly at regional level and focusing on the key role of regional fisheries organizations. She explained that by using communication in conjunction with relevant instruments and tools, global policies are putting into practice, and relevant information is

given to the target groups who, through adequate channels, express their ideas and feedbacks and learn new behaviour in the context of fisheries management, becoming part of the fisheries governance process.

With an emphasis on Communication for Development (ComDev), an all-participatory approach (policymakers, fishermen, consumers, media, etc.), which uses modern tools (mobile phones, tablets, Internet and systems/programs for exchange and harmonization of information and data in which FAO is providing support, i.e. FIRMS).

She detailed that ComDev is an important driver for fisheries and aquaculture sustainable development, that implies a results-oriented communication process, based on dialogue and participation that allows key stakeholders to voice their opinions, share knowledge and information, and actively engage in their own development. The ComDev uses a range of methods and tools, including local media and ICTs, to maximize the impact of development initiatives to address fisheries governance challenges

Section 2 focused on **ICTs and achieving SDG 14.** Three presentations were made.

- **ICTs and Sustainable Fisheries Development, Introduction and General Background**

  By Mr. Abdennaji LAAMRICH, Project Manager **(ATLAFCO)**

  By emphasizing the importance of ICT in any field of activity, he highlighted the need for strong political will and a participatory approach. ICT is at the heart of sustainable development, and the fisheries sector cannot escape it. ICTs influence the modernization of fishing techniques, control of marketing channels, campaigns for changes in laws and habits, control of fishing gear, stakeholder networking, collection and processing of data relating to fishing.

  Under SDG14 on life in the sea, ICTs facilitate satellite monitoring of the seabed, monitoring of fish stocks, tracking of IUU fishing gear, collection and sharing of marine data. The main challenge is to share information quickly or in real time.

- **ICT applications for sustainable fisheries**

  By Mr. Abdellatif EL ANKOUD, Consultant

  The Consultant reviewed the most used ICT applications (VMS, AIS, VDS and ERS) in the control and monitoring of fishing activities and the radar data acquisition system (including drones, the least expensive means). The integrated architecture and the combination of these systems facilitate data collection, analysis and dissemination.

  Then, the presentation shows how the information produced by these systems as well as the various other sources of information (vessel register, patrol boats, inspections ...) will be centralized in a fishing control information system. A

description of the architecture, components and functions of this information system has been completed. The presentation also addressed the processing and analysis of these data to track fishing effort and quotas and to combat illegal fishing.

Finally, the presentation briefly discussed technologies to minimize the effects of ghost fishing, bycatch and discards, and the contributions of Geographic Information Systems to sustainable fisheries. Other applications make it possible to control the "ghost fishing" (in particular the marking, the recovery or the disintegration of nets lost or thrown at sea).

- **ICTs and control of fishing and the fight against IUU fishing in Morocco**
  By Mr. Abdellatif HMIDANE (**Direction of Control of the Activities of the Maritime Fishing)**

  Going back to the launch of the "**Halieutis Strategy**" in 2009, **Mr. Hmidane** noted the tools put in place for the control of fishing activities and the fight against IUU fishing: legal framework, electronic surveillance of fishing vessels, national control plan .Hence the creation in June 2016 of the Control Directorate of Maritime Fishing Activities.

  Through the use of the latest ICT tools, the Department has set up a traceability system, a fully computerized procedure, that covers the entire fish value chain (reporting of catches, marketing, sales of catches and products, sale for export) .An application called "SAMAC" controls the certification of catches. ICT is also at the heart of the National Maritime Fishery Control Plan (implemented in 2016), facilitating the preventive and operational approach of risk-based control based on risk analysis, operational approach and management of monitoring and reporting operations.

  In the same context, the Fisheries Department has been equipped with a fishing vessel monitoring center equipped with a state-of-the-art VMS system, ERS electronic data communication software. A feasibility study is underway to set up the EMS monitoring system.

  After these three presentations of **Section 2**, the discussions have helped clarify the latest ICT tools in fisheries management, and to share the experience of some Member States.

Section 3: ICTs and achieving SDG 14 (continued)

Three presentations have been made in this section.

- **ICT as research tools in fisheries science: case of Morocco.**
  By Mr. **Abdelmalek FARAJ**, Director General of the National Institute for Fisheries Research (INRH) - presented by Mr. **Mohammed MALOULI IDRISSI**, Head of the Mediterranean Pole.

The INRH opts mainly for the information and communication procedures of the works carried out, of popularization with the professionals of the sector of the fishing and the general public and for the collection of the data which can be exploited on a local, regional, national and even global.
INRH uses ICT for three approaches: information and communication of the work carried out, popularization of research results, collection of data on sport fishing. The main platform is the dynamic and multifunctional website (www.inrh.ma), to which are added applications for the general public: the species guide, the woodcock at sea, the blue belt, the deep-sea fishing, sport fishing, followed by pelagic ecosystems.

- **Use of ICTs for the sound management of fisheries in the GFCM area of competence**
  By Mr. **Ahmed SLIMAN**, Legal Consultant to the Secretariat of the General Fisheries Commission of the Mediterranean (GFCM)

  In 2015, the GFCM took the initiative to launch the International Day against Illegal, Unreported and Unregulated Fishing (IUU-IUU), which is on the official UN calendar on June 5 from 2018. The 2019 celebration was devoted to giving greater visibility to the national initiatives of the CPCs in the fight against IUU fishing and it took place on the occasion of the "*GFCM High Level Conference on MedFish4Ever Initiatives: Advanced and renewed commitments* ". In this framework, the GFCM-focused Best Practice Awards, focused on the use of new technologies to monitor the fishing fleet as RFID and the use of drones, the exchange of information in the context of mobile application plans to improve the traceability of the catch of the small-scale fishing fleet

- **ICT and mass media for fisheries: the experience of the Media Observatory for Sustainable Fisheries in Africa (MOSFA)**
  By M. André NAOUSSI, Coordinator of MOSFA

  The Media Observatory for Sustainable Fisheries in Africa (MOSFA) was established in March 2016 in Accra (Ghana), by more than 100 professionals from five regions of the continent and the diaspora, to help reduce the fisheries communication deficit in Africa. It has built up a vast network where members' productions are exchanged as well as external productions worthy of interest. In its database (not exhaustive), we can count more than two hundred articles, covering all the types of supports (written press, cybernetics, radio, TV, caricature, etc.). Its digital platforms include a website (bilingual French-English), two WhatsApp groups (members and Executive Committee), an email list, a Facebook page, a Twitter account (and soon a Flicker link).

The articles produced are taken back by the members, with the only constraint mentioning the Copyright (author and media). In addition to reporting on events covered, some members contribute to the production and dissemination of communication and awareness materials.
With a strong profile of its members, representation across the African continent and in the diaspora, MOSFA dreams of becoming a multimedia production center, a communication strategy laboratory, and a multilingual awareness space (including languages local authorities) on fisheries issues in Africa. To achieve this, he hopes to benefit from all types of support.

These three presentations gave rise to exchanges on INRH's application development languages, better valorization of GFCM initiatives, and increased support to the media for their involvement in the promotion of sustainable fisheries in Africa.

Section 4: ICTs, Opportunities or missed occasion for countries of the Region

This section includes two presentations.

- **Digital situation in the countries of the ATLAFCO zone**
  Under the coordination of Mr. Abderrahmane CHEKAYRI, Consultant

  Round table / Response to the questionnaire and summary

  This presentation consisted of a round table on a questionnaire on the perception of ICT in Member States and RFMOs (see questionnaire in Appendix). In spite of financial and budgetary constraints, a real will emerges in the countries to lean with the TIC, the dematerialization of the procedures, the computerization of the main public activities.
  And the fishing industry benefits greatly, despite a low penetration of artisanal fishermen. However, ICT and computerization systems should be strengthened, in particular to counter the enormous resources put in place by IUU fishing stakeholders.
  Constraints for the efficient implementation of ICTs are political, institutional, administrative, technical and human. The prerequisites require a strong political will, the involvement of the private sector and the civil society, the taking into account of the works of the universities and institutes of research.

- **Inventory and prerequisite for the use of ICT for fishing**
  Under the coordination of Mr. Abdellatif EL ANKOUD, Consultant

It consists of synthesis of answers to the questionnaire specific to the fisheries and ICT sector, previously sent by e-mail to the participants.

The situation regarding the use of ICTs in the countries of the region is not uniform. There are large disparities between countries. But the constraints are recurrent (weak political will, insufficiency of financial means, human and technical).

Statement from the questionnaire:

In the majority of countries, the following observations can be made:

- Strategies for integrating ICT into fisheries are not concretely elaborated but initiatives for computerization exist;
- All countries have the legal texts relating to the control of fishing,
- All countries have organizations in charge of fisheries control and surveillance (in general, control is done in co-operation between the fishing authority and the one responsible for coastal surveillance);
- The fishery management plans are not yet complete. The majority of countries define fishing zones in relation to the coast. Quotas and closing are rarely defined;
- Fisheries management information systems are not fully realized. Projects are under development;
- Automated control systems are used to different degrees;
- The traceability system is not computerized and is only done from catch to landing except for exports;
- Satellite connectivity can only be achieved through foreign operators;
- The coverage of national mobile networks is very limited.

Suggestions:

- Develop a clear strategy for integrating ICT into fisheries to make available to the entities in charge of fisheries the organizational, human and financial resources;
- Upgrade and strengthen the existing fisheries management information system to cover all processes including the control component;
- Upgrade and strengthen existing automated systems;
- Use studies and focus on pilot projects to set up any new system to master the context (technical prerequisites on board and on land, level of education of users, ...);
- Explore the new affordable systems that the technology currently allows
- Define roles and streamline the exchange of information between fisheries control authorities

In addition, the participants expressed the wish to benefit from the advanced experience of Morocco in this field. They hope for better regional cooperation, by exchanging experiences and benefiting from capacity building.

- **The digital revolution in developing countries (Africa): between illusion and reality.**
  By Mr. Abderrahmane CHEKAYRI, Consultant

  Developing countries can benefit from the experience of more advanced countries in moving into the digital age. By enabling improved productivity and competitiveness and improved efficiency through cost-effective sustainable production methods and more efficient service delivery, (N) ICTs offer a unique opportunity for sustainable economic growth.
  A late or incomplete transition due to various unresolved constraints could be detrimental to developing countries.

21. T All presentations are available in the original language on the COMHAFAT website at the following address: http://www.comhafat.org/fr/actualites.php?id=92

V- RESULTS

22. The presentations and discussions allowed the meeting to:

- Confirm the socio-economic importance of fisheries for the States of the region, particularly in terms of contribution to GDP, job creation, the fight against poverty and the food and nutritional security of the population;
- Become aware of the various threats to the sustainability of marine species stocks;
- Recognize the potential role of ICTs in improving the management of fisheries, the valorization of fishery products, the strengthening of fish trade, the professionalization of actors and the formalization of related activities.
- Highlight the relevance of the introduction of ICTs for the development of sustainable fisheries;
- Agree on the essential role of fisheries cooperation organizations (AU-IBAR, ATLAFCO, SRFC, FCWC and COREP ...) in promoting the use of ICTs in fisheries management, in particular in the monitoring of fishing activities and the collection of information, two essential components in the global strategy to combat IUU fishing;

23. The recommandations
At the end of the meeting, the participants formulated the recommendations recorded in (**ANNEX IV).**

24. This report has been adopted unanimously.

At the end of this meeting, Ms. Eliana Haberkon, took the floor to make a statement in which she recalled the outcomes of the FAO Fisheries Committee (COFI) in its 32nd and 33rd sessions (2016 and 2018 respectively) requesting the FAO to enhance regional cooperation for sustainable fisheries management in the Central Eastern Atlantic, in collaboration with all relevant entities present in the area. She invited the ATLAFCO Secretariat and participants to the workshop (Member States and regional organizations) to think together in a joint initiative to start a dialogue and identify steps in view to implement the COFI request.

25. The work of the workshop is declared closed at 13:30

ANNEXE I: LIST OF PARTICIPANTS

N°	PAYS	NOMS & PRENOMS	TITRE	E-MAIL
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ANNEXE II : AGENDA

Thursday, July 4, 2019

SCHEDULE	THEME OF INTERVENTION
09 :00-09 :15	- **Welcome of participants**
09 :15-09 :45	- **Official opening of the meeting:** • Address by the representative of the host country • Address by the FAO • Address by the Presidency of ATLAFCO • Introductory speech by the Executive Secretary of ATLAFCO - **Designation of the meeting chair**
09:45-10 :30	- **Section 1 : Threats to sustainability of fishing**
	- Degradation of marine resources: overfishing: **Mr. A. BENABBOU (ATLAFCO)** - Communication is key: A new approach to fisheries governance challenges. The RSN case **: Ms. Eliana HABERKON (FIAP)**
10:30-11:00	**Coffee Break**
11:00-12 :30	- **Section 2: ICTs in achieving SDG14**
	- ICTs and Sustainable fisheries development: Introduction and general background: **Mr. Abdennaji LAAMRICH (ATLAFCO)** - ICT applications for sustainable fisheries: **Mr. Abdellatif EL ANKOUD (Consultant)** - ICTs and control of fishing and the fight against IUU fishing in Morocco**: Mr. Abdellatif HMIDANE (Marine Fisheries Department)**
12:30-14:00	**Lunch**
14:00-15:00	- **Section 2 : ICTs in achieving SDG14 (continued)**
	- ICT as a research tool in fisheries science: Case of Morocco: **Mr. Abdelmalek FARAJ (DG INRH)** - The use of ICTs for the rational management of fisheries in the GFCM area of competence**: Mr. Ahmed Slimane (GFCM)** - ICT and mass media at the service of fishing: the MOSFA

	experience**: Mr.André Naoussi (MOSFA)**
15:00-16:00	**Section 3:ICTs, opportunities or missed opportunity for countries of the region**
	- **Digital situation in the fishing sector of countries in the ATLAFCO zone** Round table / answers to the questionnaire and summary
16 :00-16:30	**Coffee Break**
16:30-16 :50	- The digital revolution in developing countries (Africa): between illusion and reality: **Mr. Abderrahmane CHEKAYRI (Consultant**
16:50- 18 :00	**Discussions**

Friday, July 5, 2019

09:30-11:00	- **State of play and prerequisites for the use of ICT for fishing** Questionnaire / synthesis
11:00- 11:30	**Coffee Break**
11:30-12:30	**Section 4: Prospects for countries in the Region**
	General discussions
12:30-14:00	**Lunch**
14:00-16:00	**Conclusions and recommendations**
16:00-1630	**Coffee Break**
16:30-18:00	**Drafting of recommendations and report**

ANNEXE III- QUESTIONNAIRES

Questionnaire 1: Realities and prospects for the states of the region

1. Is ICT a component of the national development strategy?

2. Does your country have a national ICT development policy?

3. Is there an e-governance (e-government) program in your country?

- Is ICT a component of the national development strategy?
- How do you view citizen information through the web and social media?

Very Good	GOOD	Fair	Low

- How do you consider the provision of the services of the administration to the citizens?

Very Good	Good	Fair	Low

4. Are ICTs adapted to the information and communication needs of citizens?
Specify

5. What do you think are the most limiting factors in the generalization of ICT access and services in your country?

- Physical: Availability and proximity of ICT infrastructures and devices
- Economic (access cost)
- Cognitive and cultural (illiteracy, negative perception of ICT, resistance to change, services not adapted to needs...).

Can you estimate the relative importance of each factor in%

6. What urgent actions do you think need to be taken at your country level to promote the use of ICTs?

- Legislative, regulatory and regulatory?
- Material (Infrastructure and equipment ...)
- Human (skills building)

Questionnaire 2: The Prerequisites

1. Is there any strategic government approach to integrating information, communication and ICT into fisheries?
2. Is there any fisheries management information system? Briefly explain the automated processes in the information system (Vessels, Fishing Category, Licenses, Ports of call, Fishing Areas, ...)
3. Are there any fisheries management plans establishing the zones, periods and fishing quotas for each type of fishing?
4. Are there any automated control and monitoring of fishing vessels systems (VMS, AIS, VDS, Radar…)? List the technologies used and the data communication media.
5. Are the exact coordinates of no-fishing zones specified?
6. Do existing telecom operators offer satellite services (Inmarsat, Iridium, etc.) to cover fishing areas?
7. Is there data on offshore coverage areas by GSM, 3G and 4G mobile telecom networks?
8. Is there a terrestrial VHF communication network with fishing vessels (GMDSS communications ...)?
9. Are there any radar stations coastal surveillance?
10. Do the laws exploit the control or surveillance systems to be installed on land and on board vessels,
11. Is there any system for tracing fishing catches from the sea to the market?
12. Is there any organization for coordinating the control and monitoring of fishing activity?

ANNEX IV : RECOMMANDATIONS

A. **Reaffirming** the importance of the fisheries sector in economic growth, job creation and food and nutrition security, particularly in Africa ;

B. **Considering** the various threats to the sustainability of marine resources and their negative economic, social and environmental impact ;

C. **Considering** the Sustainable Development Goal 14 '' *Conserving and sustainably exploiting oceans, seas and marine resources for sustainable development* '';

D. **Recognizing** the contribution of ICTs in accelerating the achievement of the objective of the sustainability of fisheries resources, by contributing in a concrete manner to the management of stocks, strategies for monitoring, control and surveillance of fishing activities and collection and storage of information

E. **Bearing in mind Considering** the evolution of multiple ICT solutions to support the development and sustainable management of the fisheries sector ;

F. **Noting** the backwardness of some countries and the existence of large disparities in access to ICT at national , sub regional and regional level , in particular because of deficits in telecommunications infrastructure ;

G. **Referring** to the Geneva Declaration of May 12, 2004, reaffirming the universal right to access ICT, as well as the African Declaration on Internet Governance, adopted on February 13, 2017;

H. **Aware** of the potential damage to stocks in fisheries governance that neglects ICTs for sustainable management;

I. **Taking into account** the special situation of the States of the ATLAFCO region in terms of ICT development;

J. **Welcoming** the achievements and experience of some Member States in the use of ICT in the management of their fisheries resources for sustainable exploitation;

K. **Considering** that the duplication of these experiences in other countries of the ATLAFCO zone is likely to favor their generalization in favor of sustainable development of fisheries in the Region, within the framework of South-South cooperation ;

PARTICIPANTS RECOMMEND

1. To promote ICTs throughout the fisheries sector, through their integration into the implementation of national fisheries development strategies;

2. To create To create an entity dedicated to ICT within fisheries departments, for the purpose of developing applications for fisheries resource management and the marine environment;

3. To allocate a substantial budget for the promotion of ICT and access to the Internet for fisheries governance;

4. To ensure coordination between the fisheries department and government administrations responsible for ICT development policy;

5. To build the capacity of institutional, private and civil society actors in the appropriation of ICT tools related to fisheries;

6. To involve all relevant non-state actors, particularly professional organizations, in the design and implementation of computerization projects related to the fisheries sector;

7. To promote the exchange of experts, the sharing of information, the transfer of technology and know-how, with emphasis on South-South cooperation;

8. To facilitate the mobilization, coordination and intervention of technical and financial partners in the development of digitization in the fisheries sector.

ANNEX V: SPEECHES

Opening speech of the President of ATLAFCO

Monsieur le Secrétaire exécutif de la COMHAFAT
Mesdames et Messieurs les membres de l'équipe technique du COMHAFAT
Messieurs les consultants ;
Mesdames et Messieurs les Directeurs et Chefs de service,
Distingués délégués des différents Etats membres de la COMHAFAT
Honorables invités,
Mesdames, Messieurs,

Au nom du Président de la COMHAFAT, Monsieur **Kobenan Kouassi Adjoumani,** Je suis particulièrement heureux de prendre la parole devant cette assemblée, à l'occasion de cette cérémonie d'ouverture des travaux pour vous souhaiter une chaleureuse bienvenue à cet atelier.

Mesdames et Messieurs ;

A ce stade de mon propos, permettez-moi de remercier la COMHAFAT et nos partenaires techniques et toutes les organisations internationales représentées à cette cérémonie qui soutiennent le développement durable et la préservation des ressources halieutiques.

C'est pour moi un réel plaisir de nous retrouver ensemble ici avec vous dans cette grande et belle ville de Tanger et plus précisément dans ce magnifique hôtel HILTON Garden pour ce séminaire sur l'importance des Nouvelles Technologies de l'informations (TIC) dans la réalisation d'une pêche durable en zone COMHAFAT.

En effet, Les Technologies de l'information de la communication ont évolué géométriquement, et sont utilisées dans une large gamme d'applications dans tous les domaines. Leurs Contributions au dynamique de développement de la pêche est aujourd'hui au centre de nombreux débats, tant au regard de la maîtrise de l'information que de la réduction des efforts qu'elle autoriserait.

Mesdames et Messieurs ;

J'espère que cette séance serait très riche en échange entre les participants venus des différents pays du COMHAFAT ici présent. Je ne doute point de la qualité ni de la compétence de tous les présentateurs des divers modules. Je compte également sur l'attention et l'intérêt de tous ici présent sur les contenus du présent atelier.

Ainsi, Au nom du Président de la COMHAFAT, Monsieur **Kobenan Kouassi Adjoumani** je déclare ouvert les travaux

Vive la Coopération régionale

Vive la COMHAFAT

Je vous remercie

Address by the representative of Morocco's Maritime Fisheries Department

Monsieur le Secrétaire Exécutif,

Honorables invités,

C'est pour moi un grand Honneur de prononcer ce mot d'allocution, Au nom du Département de la pêche maritime du Royaume du Maroc, à l'occasion de cet atelier organisé par « la Conférence Ministérielle sur la Coopération Halieutique entre les Etats Africains Riverains de l'océan atlantique - COMHAFAT ».

Mes remerciements vont à l'endroit de l'assistance qui nous honore de sa présence et à qui je souhaite, au nom du Département de la Pêche maritime du Royaume du Maroc, la bienvenue et un agréable séjour dans cette merveilleuse ville du Royaume.

Mesdames et Messieurs ;

La conservation et l'exploitation durable des océans, des mers et des ressources marines constituent un axe important dans les objectifs du développement durable. Le bien être humain et la sécurité alimentaire sont un souci majeur dans ce contexte, et les ressources de la mer ainsi que l'aquaculture interviennent étroitement dans la satisfaction de ce bien être et cette sécurité alimentaire.

Face aux pratiques de pêche non responsables et celles engendrant une dégradation du milieu marin, des mesures importantes sont nécessaires, dans les règlementations relatives à la préservation des eaux et à la gestion et exploitation des ressources halieutiques, dans la lutte contre la surpêche et la pêche illicite, non déclarée et non réglementée, et dans la lutte contre les pratiques de pêche destructrices. Ainsi, les régulateurs, les gestionnaires et les scientifiques unissent et coordonnent tous leurs efforts et actions pour l'élaboration de règles de gestion et d'exploitation fondées sur des données scientifiques tout en agissant pour une application et mise en œuvre idoines dans l'objectif de préserver les ressources à des niveaux soutenables.

Mesdames et Messieurs ;

Dans cet objectif de développement durable les Etats sont appelés à mieux gérer et à mieux préserver les ressources aquatiques. Leurs actions en matière de gestion et d'exploitation de ces ressources doivent converger vers une assurance de soutenabilité.

Dans ce contexte, il m'est un grand honneur de vous faire part que Le Royaume du Maroc accorde une importance primordiale à la ressource halieutique. En effet, depuis la mise en œuvre de la stratégie Halieutis, dans laquelle la durabilité de la ressource

constitue un axe majeur, une nette majorité des espèces commerciales sont dorénavant gérées par des plans d'aménagement.

De même, une importance particulière a été accordée à la prévention et à la lutte contre la pêche INN. A cet effet, une série de mesures a été instaurée par le Royaume du Maroc, ayant permis de disposer d'une entité administrative de coordination du contrôle des activités de la pêche, d'une plateforme juridique actualisée, de procédures et méthodologies opérationnelles, d'une surveillance par VMS, d'outils électroniques avancés pour le suivi de la traçabilité des captures et d'un plan national de contrôle des activités de la pêche. Ceci, dans un objectif d'amélioration, d'efficacité et d'efficience du système de contrôle.

Mesdames et Messieurs ;

Les technologies d'information et de communication offrent des opportunités très utiles. Leur avancée intéresse de plus en plus différents domaines, qui y trouvent un appui et un support incontournables.
Ainsi, les travaux de nos scientifiques dans le domaine halieutique utilisent de plus en plus ces technologies que ce soit en matière d'appareillage, d'équipements ou de logiciels, le contrôle et le suivi des activités de la pêche ont eux aussi recours à ces technologies (VMS, traçabilité électronique, observation électronique à bord, ….) . La production de l'information, son traitement, son stockage, sa disponibilité, son échange, sa communication, …. deviennent de plus en plus utiles et nécessaires pour notre secteur.

Votre rencontre à Tanger constitue une opportunité certaine pour débattre et discuter de l'utilisation des technologies d'information et de communication pour la pêche durable, elle contribuera surement au développement des capacités à travers le partage attendu d'informations et d'expériences vécues par les différents intervenants et participants.

Au nom du Département de la pêche maritime du Royaume du Maroc, je vous remercie encore une fois pour votre présence dans cet atelier et vous souhaite une grande réussite dans vos travaux.

Merci.

Introductory speech by the Executive Secretary of ATLAFCO

Monsieur le Représentant du Département des Pêches Maritimes du Royaume du Maroc
Monsieur le Représentant du Président en exercice de la COMHAFAT
Madame la Représentante de la FAO
Madame et Messieurs les représentants des Organisations Régionales des Pêches africaines
Monsieur le Coordinateur de l'OMPDA
Messieurs les représentants des Etats membres
Chers collègues
Mesdames et Messieurs,

Il m'est particulièrement agréable d'être parmi vous aujourd'hui, à l'occasion de l'ouverture de cette rencontre de réflexion portant sur la contribution des TIC à la réalisation d'une pêche durable dans la Région, que la COMHAFAT a l'honneur d'organiser ici à Tanger.

Je voudrais à ce propos, au nom du Président de la COMHAFAT Monsieur **Adjoumani Kobenan Kouassi**, Ministre des Ressources naturelles et Halieutiques de la Côte d'Ivoire, et en mon nom personnel vous remercier pour avoir bien voulu répondre à notre invitation.

J'aimerai également remercier, à travers Monsieur le Ministre de l'Agriculture, de la pêche Maritime, des Eaux et Forêts et du Développement Rural, les Autorités marocaines pour leur appui constant à la COMHAFAT et pour l'aide et le soutien qu'elles ont bien voulu apporter à l'organisation de cette réunion.

Mesdames et Messieurs,

L'organisation de cet atelier nous offre l'occasion de réfléchir à la manière dont les technologies de l'information et de la communication dans le secteur des pêches (TIC) peuvent aider à promouvoir une pêche durable pour les pays de la Région, à travers quelques exemples de leur utilisation et de leur impact potentiel dans l'exploitation des ressources halieutiques. Nous nous interrogerons ainsi sur la manière dont celles-ci sont établies pour améliorer les possibilités de renforcement de la durabilité des ressources halieutiques.

Les applications TIC ont fait leur apparition dans le secteur de la pêche depuis quelques décennies déjà, et leur utilisation qui suit une progression géométrique et de plus en plus banalisée. Elles touchent l'ensemble du secteur où elles sont utilisées dans l'évaluation des ressources, la recherche halieutique, le recensement des navires en passant par les captures, la transformation, la commercialisation et la sécurité de la navigation.

Les TIC peuvent certainement nous aider à améliorer sensiblement la gestion des ressources halieutiques et à contribuer à leur gestion durable.

Cependant, leur introduction dans le contexte halieutique peut présenter des risques et des conséquences potentiellement néfastes, si des précautions ne sont pas prises et des obstacles ne sont pas levés.

En plus de leur prêter la réputation d'accélérer le déclin des stocks de poissons, en ce qu'elles permettent aux navires de la pêche commerciale d'exploiter les populations des zones auparavant considérées comme difficiles d'accès, et en poussant les pêcheurs artisanaux à prendre plus de risques, en cherchant des lieux de pêche plus éloignés ou en rivalisant avec les plus gros navires utilisant les dernières innovations technologiques, les TIC dans la gestion de la pêche, si elles ne sont pas pensées dans le cadre d'une stratégie claire et volontariste des pouvoirs publics, elle-même intégrée dans une politique nationale de l'information et de la Communication, peuvent ne pas aboutir à l'effet escompté.

Mesdames et Messieurs,

L'utilisation des TIC dans le domaine halieutique est liée à leur degré d'application à l'ensemble des secteurs au niveau national. Elle présuppose l'existence d'un environnement juridique incitatif, d'infrastructures de communication performantes et de compétences appropriées.

L'on s'interrogera de savoir si les pays de la région disposent d'un tel *écosystème ?* Comment ils vivent cette transformation ? Ont-ils intégré l'utilisation de ces technologies, et de quelle manière ils les ont appropriées ?

Les technologies numériques transforment les sociétés et l'économie mondiales, mais bien des pays dits *en développement* sont encore privés des bienfaits que leur apporterait le numérique, telle que, une meilleure gouvernance, une croissance économique durable et sans exclusion, et une fourniture des services plus efficace. Rater le train des techniques numériques ou accuser un retard, serait fort préjudiciable

pour nos pays compte tenu de l'importance de l'avantage concurrentiel que pourrait apporter ces innovations.

C'est à ces questions et à bien d'autres que notre rencontre essayera d'apporter des réponses.

Notre démarche consistera à

- Rappeler l'importance économique et sociale du secteur de la pêche pour les pays de la Région et les principales menaces sur la durabilité des stocks de poissons ;
- Examiner les diverses applications et l'impact potentiel des technologies de l'information et de la communication dans la gestion des pêches ;
- Montrer de quelle manière associer les nouvelles technologies de l'information et de la communication (TIC) aux outils existants pour renforcer la durabilité de ces stocks ;
- Proposer des voies/stratégies en matière de politique pour favoriser un emploi optimum des technologies de l'information et de la communication dans la gestion des pêches pour assurer la durabilité des ressources ;

Convaincu de votre expertise collective et de votre engagement, je suis persuadé que notre réflexion apportera de nouvelles contributions pour une meilleure exploitation des énormes possibilités qu'offrent ces technologies à la pêche dans notre Région.

En renouvelant mes vifs remerciements à tous nos partenaires techniques et financiers, je souhaite pleins succès à nos travaux.