

**USAID/COMFISH Project**  
***PENCOO GEJ***  
**(Collaborative Management for a Sustainable Fisheries Future  
in Senegal)**

**(LWA Associate Award No. 685-A-00-11-00059-00)**

**Third Quarterly Report**  
April 1 – June 30, 2012

**Submitted to:**

USAID/Senegal

**By:**

The University of Rhode Island (URI)

**In Partnership With:**

Coastal Resources Center, University of Rhode Island  
United States Agency for International Development / Senegal  
Ministère de l'Économie Maritime  
World Wildlife Fund - West African Marine EgoRegion  
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## LIST OF ACRONYMS

AIS	Automatic Identification System
AMLEP	African Maritime Law Enforcement Partnership
AOR	Agreement Officer's Representative
APTE	<i>Assainissement Pêche Tourisme et Environnement</i> (Environment, Tourism, Fisheries Sanitation)
CCLME	Canary Current Large Marine Ecosystem Protection Project
CLP	Local Fisheries Committees
CLPA	Local Councils of Artisanal Fishers
CNCPM	National Consultative Council for Marine Fisheries
COGEPAS	Co-Management of Artisanal Fishery in Senegal
COMOPECHE	Sustainable Management of Fish Resources Project, World Bank
CONIPAS	National Fisheries Stakeholder Council
CPUE	Catch per unit effort
CRODT	Oceanographic Research Center- Thiaroye, Dakar
CSE	Ecological Monitoring Center
DPM	Department of Marine Fisheries
DPSP	Department of Fisheries Protection and Surveillance
FENAGIE	<i>Fédération Nationale des GIE de Pêche</i> (National Federation of Fisheries EIG)
FMP	Fisheries Management Plan
GAIPES	Industrial Fisheries Association
GIS	Geographic Information Systems
GREP	Environment, Research and Media Research Group
ICC	(CLPA's) Advisory and Coordination Body
IFAN	Fundamental Institute for Black Africa
IRD	<i>Institut de recherche pour le développement</i> (French Institute For
IUPA/UCAD	Institute of Fishing and Aquaculture, University Cheikh Anta Diop
IUU	Illegal, Unreported, and Unregulated fishing
JICA	Japan International Cooperation Agency
LPS	Fisheries and Aquaculture Sector Policy Letter of 2008
MPA	Marine Protected Area
PMP	Performance Management Plan
SCA	Accelerated Growth Secretariat
UGD	Sustainable Management Unit
WWF-WAMPO	World Wildlife Fund for Nature – West Africa Marine Program Organization

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## **Executive Summary**

### **Project Management**

*Agreement Protocol:* CRODT and USAID/COMFISH agreed to develop a Memorandum of Understanding governing their relationship for the rest of the project. This will be completed at the beginning of FY2013.

*FY2013 Work plan:* Preparation of the work plan for the FY2013 has begun.

### **Institutional Capacity Building**

*Mobilizing and strengthening the role of the National Advisory Council for Marine Fisheries (CNCMP):* The DPM and USAID/COMFISH recruited an expert who was given the task to examine the functional gaps that exist between the CNCMP and the CLPAs that were identified during a national workshop in the second quarter.

*Senegal Management Plan for the management of fishing capacity:* A working group was formed to identify a Senegalese national plan for the management of fishing capacity. The results will be presented in the next quarter.

*Outreach and Awareness Workshop:* A workshop on outreach was held by IUPA and USAID/COMFISH. Participants were chosen to lead outreach activities within the CLPA of Yoff. The fishermen of the Yoff CLPA willingly collaborated and asked for further help on the part of USAID/COMFISH in beach cleaning and sustainable fishing methods. IUPA will continue this activity in the fourth quarter.

*Gender:* The proceedings from the workshops on gender and on the CLPAs and Sustainable Fishing Units (UGDs) organized in the second quarter were presented and were made available to USAID and are available on the CRC/URI website.

*Graduate Studies:* Arrangements were made to allow a Senegalese citizen to enroll in the Graduate School of Oceanography at URI for a M.S. degree in the dynamics of fish populations. Another Senegal citizen will take up the position of Visiting Scholar in the Marine Affairs Department at URI in October 2012. His research focus is on ways to improve fisheries governance in Senegal.

### **Sustainable Management of Resources**

*Local Conventions, Fisheries Management Plans, and Sustainable Fisheries Units:*

- a. The periodic collection of data relative to fisheries biology (length, frequency and size at first maturity) required to support Fisheries Management Plans (FMPs) continues with the exception of white grouper (due to low abundance and very high price) and octopus (due to fishermen targeting other species at times). These gaps for the white grouper and the octopus are not significantly important, but they pose a threat to final evaluations.
- b. The LABEP/IFAN/IRD contract concerning the determination of age and biological aspects of fish species (equally required to support management planning) was signed during the third quarter although the activities cannot start before the end of Ramadan in the middle of the fourth quarter.

- c. Work concerning the introduction of Local Conventions (CL) within the CLPA was conducted in three CLPAs (Mbour, Joal Fadiouth and Sindia).
- d. Plans for the establishment of a single Local Convention (CL) within the CLPAs (linking Mbour, Joal/Fadiouth and Sinda in a single UGD) are being discussed and will be implemented during FY2013.
- e. During this work, 10 facilitators of USAID/COMFISH organized multiple discussion meetings, and led many face-to-face interviews in order to allow the fishermen to better understand what a sustainable fishery is as mentioned in the Policy Sectoral Letter (LPS).
- f. FENAGIE and APTE continued their support of activities concerning sardinella processing and marketing within the CLPA of Cayar.

*National Workshop on best management practices (BMP):* Professors Kathy Castro and Najih Lazar of the URI Fisheries Center and WWF led a national workshop on best fishing practices. The event provided an award for (i) the best capture practices in fishing, and (ii) the best practice in fish processing. Fishermen submitted their best practice to USAID/COMFISH via the Heads of Fisheries in the CLPAs. A neutral jury conducted the selection of the winner in each category and the results were widely reported in the media. The results were very satisfactory and will be used during FY2013 to identify and distribute information on best fishing practices in the 22 CLPAs of the country.

*Illegal, Unreported, and Unregulated Fishing (IUU):* A consultant was appointed by the American and Senegalese Navies during the African Partnership for the Application of Maritime Law (AMLEP 2)<sup>1</sup> for the assessment of the volume of IUU catch and the utilization of internet tools which allowed for the identification of IUU fishing vessels. The first estimates concerning IUU landings lost for Senegal, suggest greater than 100,000t/year.

*USAID/COMFISH and UBC partnership for the development of stock assessment tools:* This work started in the second quarter. Updated ELEFAN software is being created and a manual prepared. A workshop in the second quarter of FY2013 to apply and train professionals in the use of the tool is planned.

*CRODT-USAID/COMFISH partnership:*

- a. USAID/COMFISH staff visited and examined the new sampling system that estimates (i) the effort put in by Senegal fishermen in neighboring countries, and (ii) the catch they made in neighboring countries. Sample data in Casamance, in Saint Louis and in other regions where such landings take place were examined. The complete results will be available in the middle or near the end of FY2013. They are essential to evaluate current and monitor future stock for the purpose of fisheries management planning.
- b. The CRODT started work to examine the biological and socio-economic factors of the sardinella fishery in the marine ecosystem of the Canary Current (CCLME) of the West African sub-region to better understand how to manage sardinella fishing in the framework of broader regional fishing.

*Alliance, coffee-chat meetings:* Casual coffee-chat meetings held by the WWF began during the third quarter, promoted dialog around the concept of artisanal/industrial co-management and other topics such as minimum hygiene standards.

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<sup>1</sup> COMFISH receives direct financial aid from this activity of a maximum \$10,000 for the AMLEP 2 three-week study. A more complete estimation of the total aid will be carried out during the fourth quarter and FY2013.

### *Biodiversity and MPA Support*

- a. The new Center for the promotion of ecotourism in MPAs was created in the MPA of Joal/Fadiouth, and was still being fitted at the end of the third quarter. The director of the USAID mission will be invited to the opening, planned for the fourth quarter when the Center will be ready to begin operations.
- b. WWF led a study in June 2012 on the MPA of Joal-Fadiouth that evaluated the effectiveness of the buoys that were installed there during a preceding project (not USAID/COMFISH). Seven of the eleven buoys installed were lost and only two of them were found and rescued. The information obtained and the lessons learned will be used to guide the deployment of buoys at Cayar.
- c. A call for bids went for new buoys at the Cayar MPA went out at the start of the third quarter. The buoys will be deployed during the fourth quarter: the long gap between the bids and the deployment is due to the long period necessary to construct the buoys.
- d. Two observers attended the workshop in Johannesburg on third level accreditation of the WIO-COMPASS MPA certification program from May 21-25, 2012. In FY2013, USAID/COMFISH will evaluate the capacity and needs of the leaders of the MPAs to determine if a similar program would be useful in Senegal.

### **Socio-economic well-being**

*Finalization of hygiene studies of keccax<sup>2</sup>*: The hygiene studies of *keccax* were finalized by APTE in cooperation with specialists from the University of Dakar. The results will be available in the fourth quarter and will be used (i) for improving the quality of *keccax*, and (ii) to work on the creation of a commercially recognized label for the improved product.

*Socio-economic studies of the Sine Saloum shrimp*: Collection of socio-economic data started in November 2011 and has continued as planned. The complete results will be available in FY2013.

### **Climate Change**

*Climate change awareness raising and training*: Around 400 fishermen were informed how to recognize climate change impacts and processes to respond (vulnerability assessment and adaptation planning).

*Strengthening the resilience of the coastal community: integration of Population, Health and Environment 2012*: USAID/COMFISH sent two Senegalese participants to the Institute on Climate Change Resilience, June 4-22, with a multi-sector focus (population, health and the environment). The training took place at the Bay Campus of the University of Rhode Island.

*ISE Sub-contract*: The sub-contract was approved by USAID. The field work will begin in the fourth quarter.

*Participatory mapping*: The CSE and USAID/COMFISH continued the collection of geo-referencing information relative to climate change and fisheries. The maps created during the third quarter include

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<sup>2</sup> The result of drying, smoking and especially braise cooking of the fish is called *keccax*. It is done with small pelagic species, in particular the sardine.

the distribution of stock, the area occupied by the villages, the mangroves and land use, along with numerous other variables, including climate specific variables.

## 1 INTRODUCTION

The implementation of Local Conventions (CL) continued in the CLPAs of Joal, Mbour and Sindia. Strategies to strengthen the capabilities of the actors and institutions was discussed and analyzed through three important workshops. This action was also reinforced by a series of reflections relative to the implementation of prerequisites for the creation of UGDs, beginning with activities on better fishing practices and the organization of focus groups to analyze fishing constraints in the targeted CLPAs.

Concerning conservation, activities began related to the marking of the MPA of Cayar and the strengthening of the management committee of the MPA of Joal.

The primary activities during the quarter included:

- Meetings and capacity building for the creation and adoption of Local Conventions in three CLPAs
- Finalization and dissemination of workshop proceedings and recommendations on strengthening the role of women in fisheries
- Climate change awareness raising and training at CLPA sites
- Continuation of socio-economic studies on the shrimp fishery in the Sine Saloum
- Completion of studies on keccax (sardinella processing) hygiene in Cayar
- Best Fishing Practices Awards program
- Purchase of equipment for the Eco-tourism Center of Joal-Fadiouth
- Participation in WIOMSA-WIOCOMPAS MPA professional certification workshop
- Visiting coastal stations monitoring IUU fishing
- Analysis of data on landings and effort to diagnose the current status of fisheries
- Startup of CRODT biological and socio-economic studies on sardinella
- Start of a study on fishing capacity
- Initial preparations of the FY2013 Work Plan

## **2 PROGRESS ACHIEVED AND CHALLENGES MET**

### **2.1 Political Reform –Sectoral Policy Letter**

During this quarter, the project pursued activities aimed to contribute to the Sectoral Policy Letter in terms of sustainable management of fisheries and to reinforce governance in the fishing sector. Activities included:

- Capacity building of the National Advisory Council for Marine Fisheries (CNCMP)
- Consideration of reforms at the CNCMP level for better involvement with the ICC of the CLPAs
- Putting into place a scientific commission in charge of supporting CLPAs and the CNCMP
- Establishing a framework for sustainable consultation between the actors in the CLPAs and the actors concerning industrial fishing for the implementation of stock-wide management plans
- Strengthening the representation of women within the ICC of the targeted CLPAs
- Review of the legal foundations of CLPAs for the implementation of efficient strategies for a better establishment of the UGDs
- Collaboration with the Secretariat of the Accelerated Growth Strategy (SCA) on mechanisms for the implementation of UGDs
- Meetings with the Navy and of the Directorate of Protection and Fisheries Monitoring (DPSP) concerning the analysis of collected data on IUU fishing

### **2.2 Natural Resources**

#### **2.2.1 Creation of a scientific database**

##### *2.2.1.1 Evaluation of Senegalese fishing effort in the Sub-Region*

Facing the constant rise in fishing pressure and exploitation of fishing resources in the waters of Senegalese jurisdiction, artisanal fishermen have progressively developed operational strategies to maintain sustainability of their fishing activities. One of the most important strategies noticed during these last few years relates to fishing activity by Senegalese outside the Exclusive Economic Zone of Senegal, particularly in Mauritania, Gambia, Guinea, Guinea-Bissau and Sierra Leone. In the majority of cases, fish catch landed in Senegal from the sub-regional EEZ were officially regarded as catch in Senegal waters. This situation skews understanding the state of exploitation of stocks. An assessment of fishing effort and landings made outside the EEZ of Senegalese fishers has begun in partnership with CRODT.

*Choice of sites and adopted strategies:* An experiment performed in Saint-Louis to test fishing operations in Mauritania show that the current plan of CRODT to assess fishing effort outside of Senegal is effective. The plan involves putting into place an investigator and a beach assistant at six fishing centers: Saint Louis, Hann, Mbour, Joal, Ziguinchor and Elinkine.

*Methodology for the collection of fishing statistics:* The collection of data is done by stratified random sampling in the six landing centers. The collected data are routinely coded and entered by four experienced staff at CRODT. The processing of data consists of detecting and correcting errors made during collection and data entry, as well as performing statistical extrapolation procedures. Finally, the

analysis allows for the production of tables and graphs whereby the data of fishing activities can be well understood. Data processing and analysis are conducted with SPSS statistical software.

At all six fishing centers, information is collected on the number of fishing boats fishing outside the Senegalese EEZ, type of fishing gear used, target species, amount of ice used on board, length of fishing trip (typically 10-15 days), and where the catch is marketed and processed. This information will be reported and analyzed in a technical report.

2.2.1.2 GIS data and mapping

During the month of June the CSE pursued mapping projects in the fishing zones of the CLPAs of West Dakar, Rufisque-Bargny, Thiaroye and Sindia. During field visits, mapping sessions were conducted with the participation of fishermen. In the southern zone of the CLPA of Sindia, a meeting was organized in Ngapaou where the most important fishing zones were identified on the map. Following this meeting, the CSE team conducted a trip to sea with three resourceful people to geo-reference fishing sites. In total, 24 zones were geo-referenced.

Geo-referenced fishing zones between Sendou and Mbao are indicated on the map below:

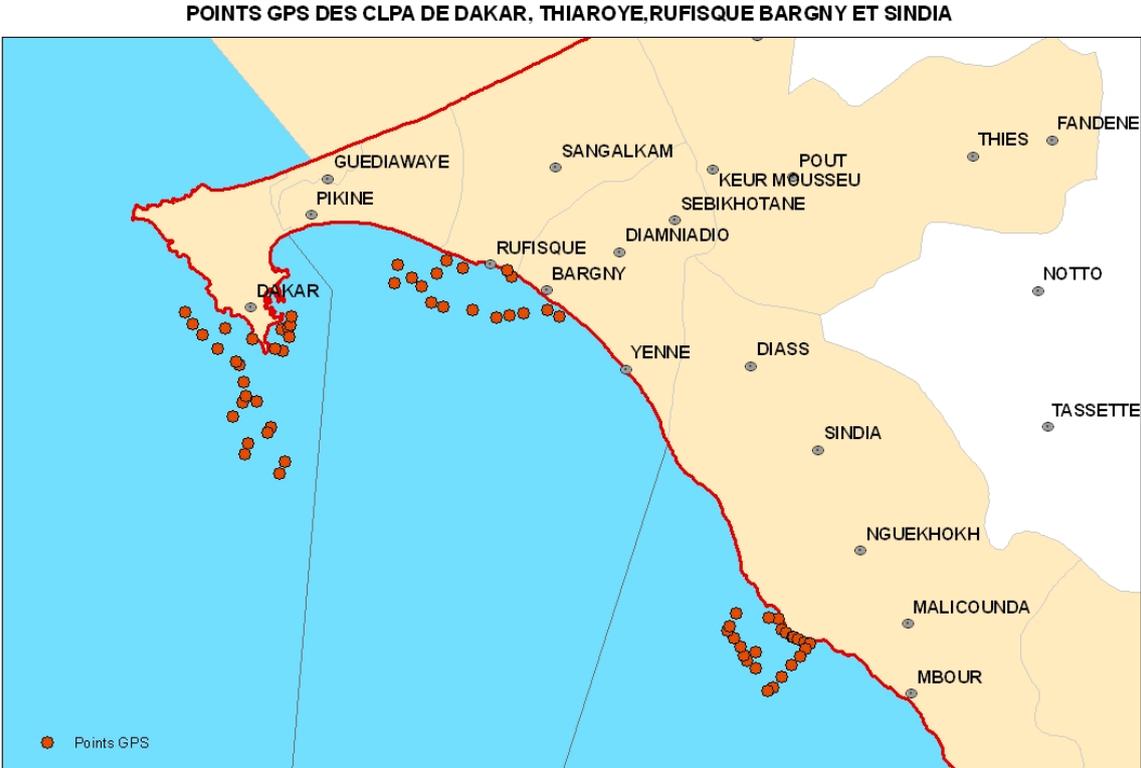


Figure 1 : Mapping in the fishing zones within CLPAs of West Dakar, Rufisque-Bargny, Thiaroye, and the northern part of the Sindia CLPA.

The evolution of ecosystems and mangroves in the project zone between 1979 and 2011 was also geo-referenced as indicated on the map below:

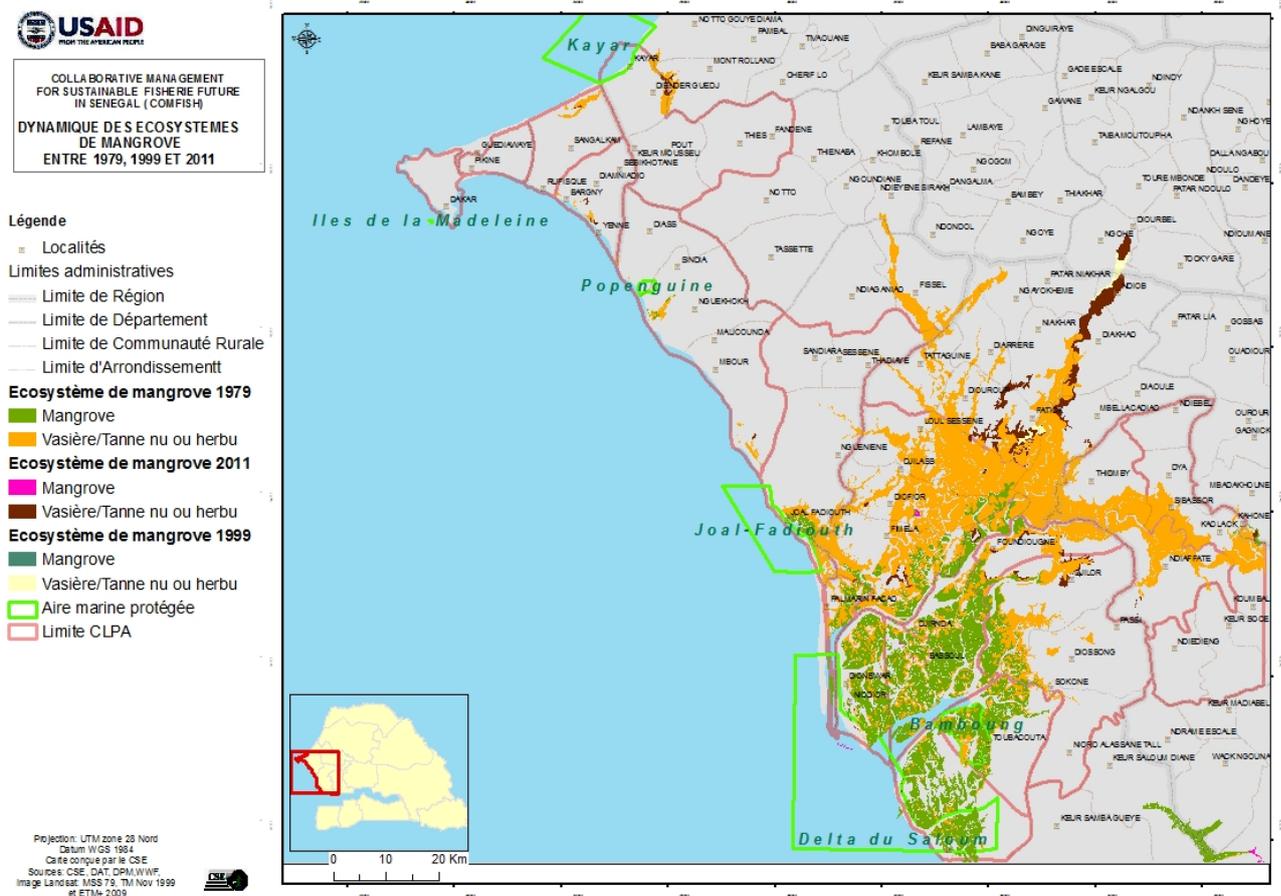


Figure 2 : Dynamic of ecosystems in mangroves between 1979, 1999 and 2011

Detailed maps of fishing zones in the CLPAs of Mbour, Sindia and Joal were also prepared and illustrated below:

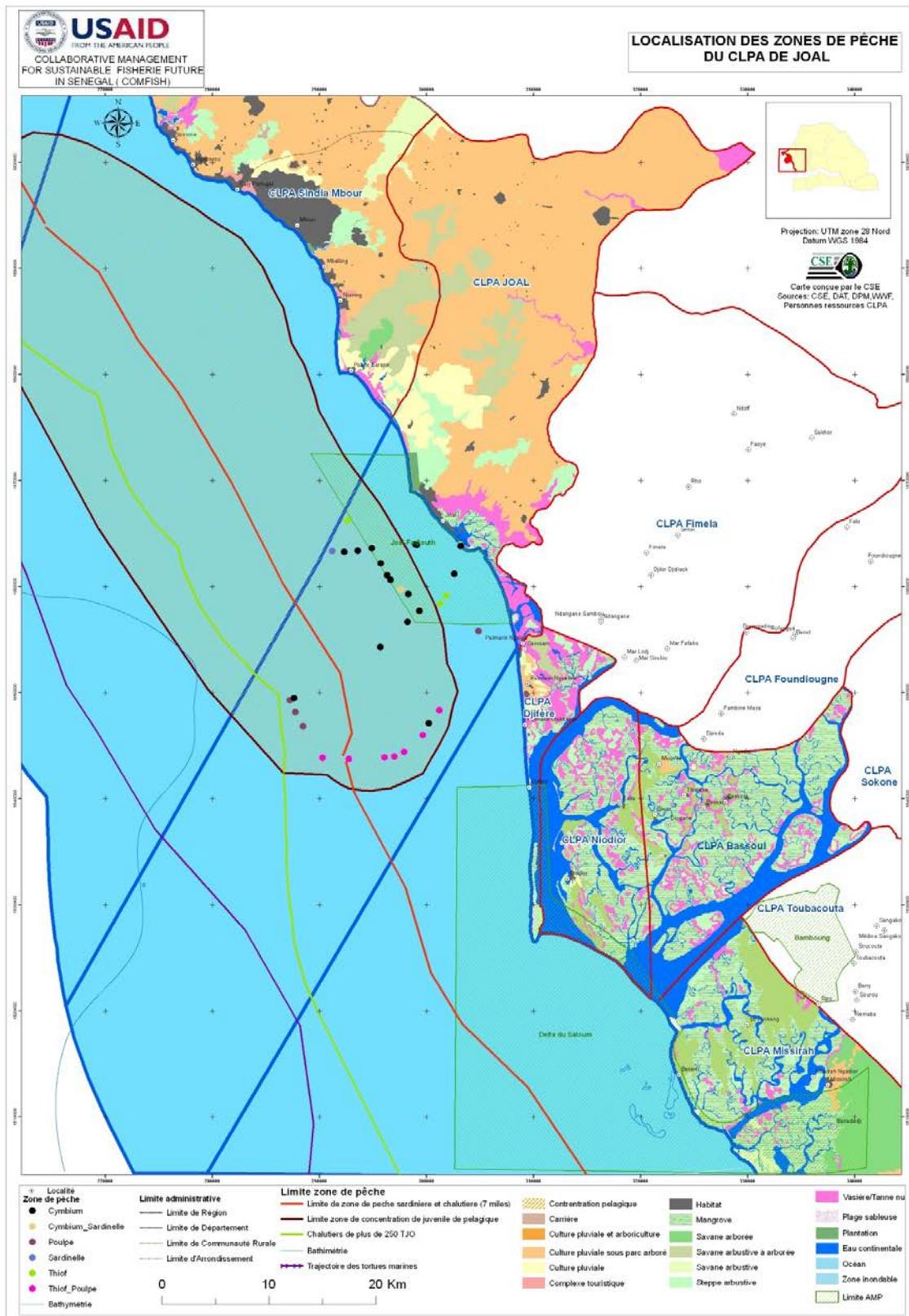


Figure 3 : Locations of Joal CLPA fishing zones

### 2.2.1.3 Data collection by IUPA

Sampling of priority species takes place in the sites targeted by the USAID/COMFISH project. During this quarter, sampling took place at the landing sites of Cayar, Mbour, Joal, Bétenty, and Foundiougne.

In total, 8411 individual fish species were measured for length and weighed, including 1151 *Sardinella aurite*, 1182 *Sardinella maderensis*, 322 *Epinephelus aenus*, 1220 *Ethmalosa fimbriata*, 1155 *Octopus vulgaris*, and 3381 *Farfantepenaeus notialis*. The purpose of this activity is to understand the level of pressure on stocks. If fish are being caught before sexual maturity it is harmful to the fishery. In addition to length and weight, information is collected on fishing zone, total landed pounds by area, motor power, level of effort, etc.

Challenges in this sampling activity include the following:

- Octopus were landed in small quantities and they are coveted by women who buy them from fishermen and then resell them to wholesalers. The wholesalers often refuse permission to weigh the octopus. White grouper is also rare, and only a few of those landed were measured, due to the strong resistance of the owners of the fish.
- The specific catch of artisanal fishermen varies according to the season and the demand of wholesalers. As a consequence, certain species were either not landed or were landed in small quantities while the team was doing research.
- Concerning the collection of information on fishing activity (effort, fishing zone, motor power, total landed pounds by area, etc.) often the actors in the field will ask for monetary compensation in exchange for providing information. When information was requested without compensation, fishers and other actors often refused to disclose everything.

### 2.2.2. Development of Local Conventions

The process to prepare Local Conventions was continued during this quarter in the sites of Joal, Mbour and Sindia. After the training of facilitators, collection of data continued on the status of fishing locations and their condition.



**Figure 4 : Participants at a coordination meeting of the Mbour CLPA**

This is a very important phase for the project since all the information collected and later elaborated upon by the Local Conventions will permit preparation of a baseline on fisheries resources.

Initial analysis shows a clear dominance of fishermen in terms of total number of people in the fisheries sub-sector at the three CLPAs (87.15% and 66.30% respectively at Mbour and Joal-Fadiouth). The importance of other careers (processing of fish products, fish trade and other fisheries services) at Sindia is greatest.

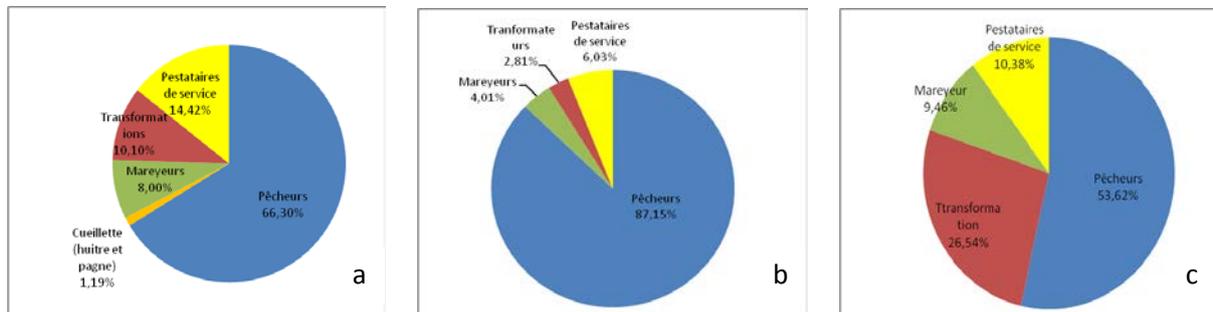


Figure 5 : Distribution of different careers in fishing concerning the CLPAs of Joal (a), Mbour(b) and Sindia (c)

With regard to fishing gear used, gillnets are dominant in all the CLPAs. Concerning other types of gear, distribution differs from one CLPA to another. There is a predominance of traps in Joal-Fadiouth, fish and octopus lines in Mbour, and fish lines, octopus lines, and trammel nets in Sindia.

The figures below show the distribution of fishing gear at the CLPAs:

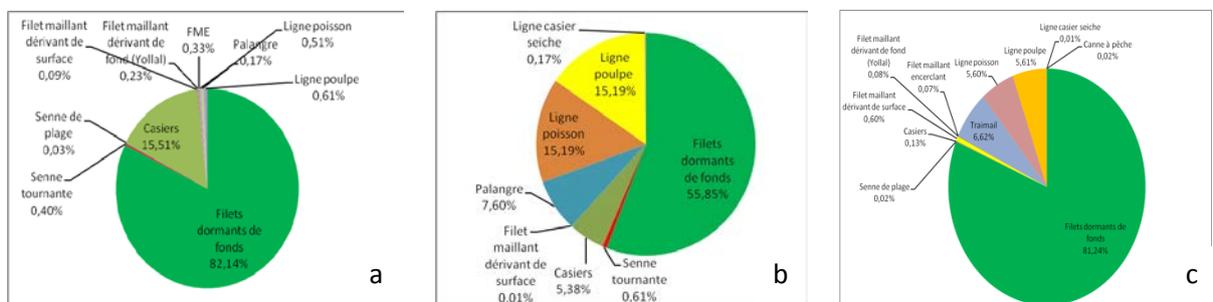
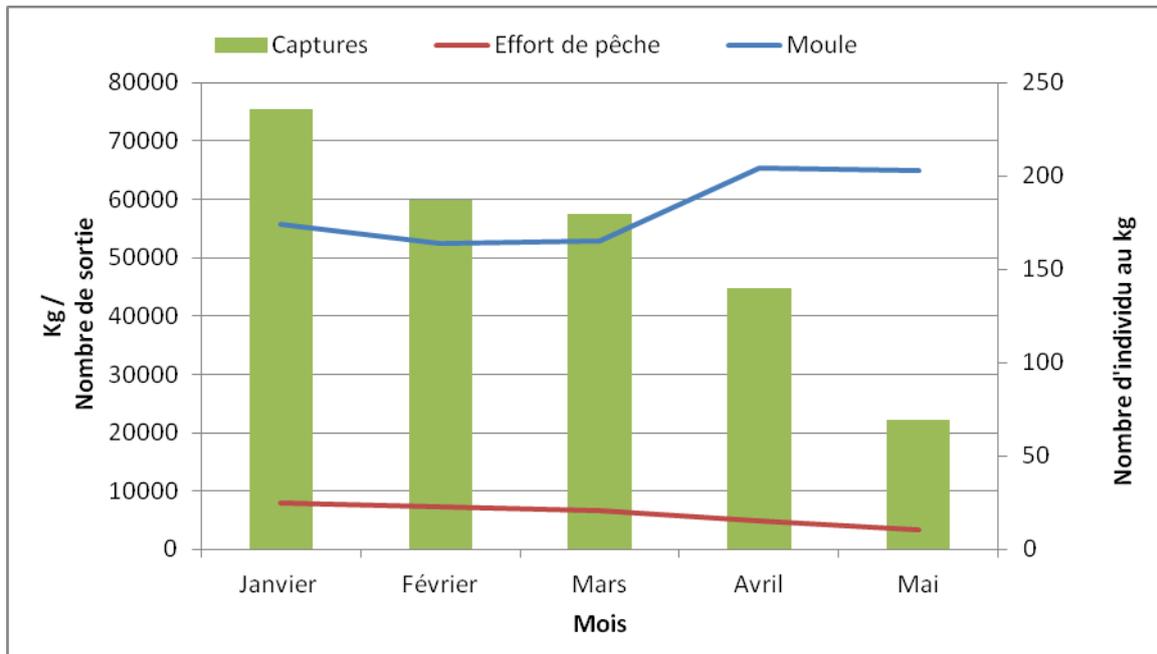


Figure 6 : Distribution of fishing gear of the CLPAs of Joal (a), Mbour (b) and Sindia (c)

### 2.2.3. Collection of socio-economic data at Sine Saloum

Socio-economic data on shrimp continues to be collected in the Sine Saloum (data collection began in January 2012). This information will be used in the process of fisheries management planning. The table below shows the evolution of catch of mussels as a function of fishing effort.



*Figure 7 : Evolution of mussels catch as a function of fishing effort.*

Analysis of this graph reveals the following:

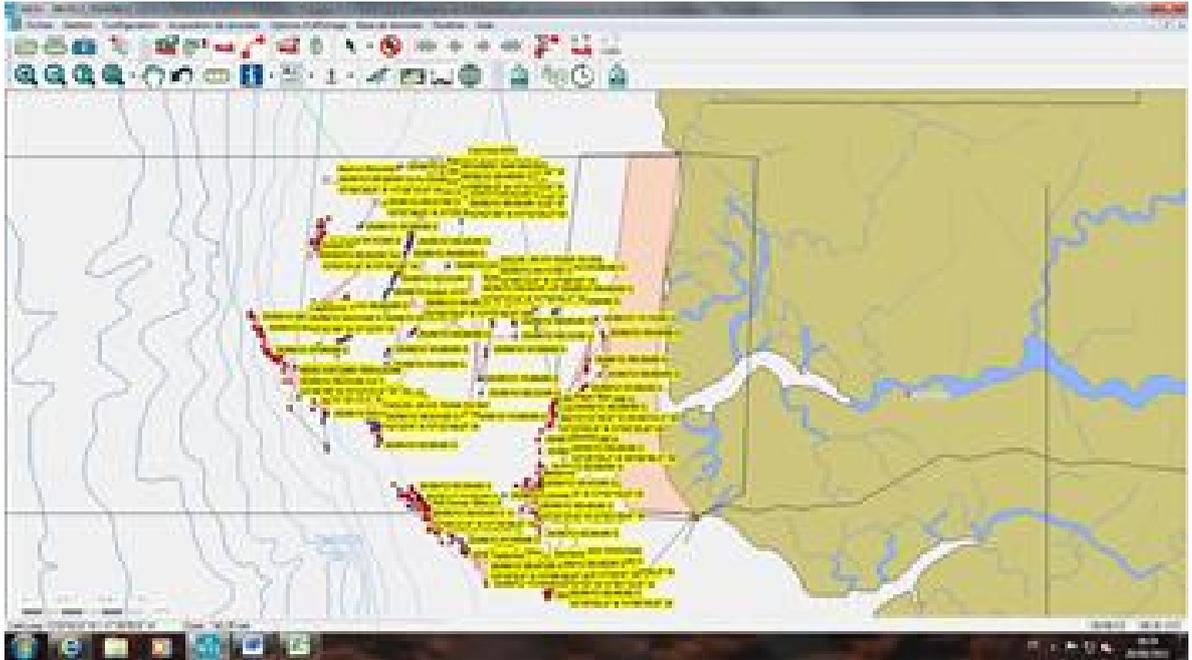
- It is apparent that catch and fishing effort continue to drop. Catch from January to May dropped 70%. Fishing effort dropped 57%. This situation is related to the weakness of yield. When fishers catch little per unit of effort, fishermen diminish or stop their activities.
- Concerning the average monthly value of the number of individual mussels per kilogram, it is apparent that an increase continues, meaning that the size of the mussels caught are getting smaller. Between January and May, the number of mussels per kilogram increased by 14%. However, there is discrimination in the distribution of averages by zone. In effect, the weakest values of the mussel during month of May are shown in Foundiougne and Djirnda with 174 and 188 individual kg respectively.

#### **2.2.4. Illegal, Unreported and Unregulated Fishing (IUU)**

Collection of data on IUU fishing continued. The following actions were taken during this period:

Concerning the Directorate of Surveillance and the Protection of Fisheries (DPSP):

- Interviews with members of the DPSP (Chief of Operations, head of the inspection division, and fishing inspectors)
- Meeting with the Director and work planning sessions
- Data collection on the VMS (Vessel Monitoring System)



**Figure 8 :** Photo of the VMS showing the concentration zone where Senegalese trawlers are authorized to fish and the zone of the highest number of incursions of non-authorized foreign vessels.

- Collection of data on fishing capacity of pelagic vessels for 2012 (ships potentially involved in illegal activities), and estimation of daily catch
- Observation of radar data and the AIS (Automated Identification System) of the Navy
- Tracking vessels involved in illegal activity



**Figure 9 :** Photo of a vessel in the process of a transshipment within Senegalese waters

For the Department of Marine Fisheries (DPM):

- Working session with the Assistant Director
- Estimation of industrial fishing trends over the last 10 years

For the National Agency of Maritime Affairs (ANAMS):

- Working session with the Administrator of Maritime Affairs

#### In the field :

- Field travel to Mbour, Joal and Ngaparou in May 2012 to visit neighboring stations as part of an evaluation of the effectiveness of surveillance systems in place
- Research into illegal activities with artisanal fishers and into the scale of IUU fishing

#### Participation in AMLEP Conference

USAID/COMFISH participated in the 14<sup>th</sup> of June to the 2<sup>nd</sup> of July 2012 Conference held by the African Maritime Law Enforcement Partnership (AMLEP).

### **2.3 Marine Protected Areas and Biodiversity**

WWF-WAMPO provided support for eco-tourism; two individuals were supported to participate in a workshop in South Africa on determining the competency of MPA officers; work took place on marking the boundary of the MPA of Joal-Fadiouth with buoys and the start-up of marking the MPA of Cayar began; preparations were made on a national fishing capacity workshop; and, multiple coffee chats were held by Alliance on sustainable fisheries issues.

#### Support of eco-tourism in Joal-Fadiouth

The USAID/COMFISH project bought certain equipment to contribute to the start-up of the eco-tourism Center of Joal-Fadiouth that was built earlier with the assistance of APTE, PRCM and WWF. A date will be fixed soon for the opening of this Center. This date is important for the fishermen who have agreed to stop their fishing activities at the MPAs and who will act as eco-guides.

#### Participation in the South Africa workshop on MPA professional capacity building

Two observers (Ibrahima Niamadio from WWF and Mamadou Faye from the Ministry of Maritime Affairs and Fisheries) participated in a work shop on certification of MPA managers in South Africa held by the WIO-COMPAS program (Western Indian Ocean– Certification of Marine Protected Area Professionals). There are seven categories of competency and three levels of MPA professionals. The purpose of USAID/COMFISH participation was to become informed on the successful WIO-COMPAS Program and to consider its application in Senegal and/or the West Africa sub-region. In FY13, USAID/COMFISH will discuss the certification scheme with Senegalese MPA managers to determine the needs and interests of a certification program.

#### MPA buoy markers at Joal-Fadiouth

An assessment of experience with existing boundary buoy markers at the Joal-Fadiouth MPA took place in June 2012. Two key findings include:

- 2 of 11 buoys within the MPA in 2009 were lost at sea
- All the tags were given maintenance (to corrosion) in December 2011, however not all were reinstalled in their initial location

The lessons learned from Joal-Fadiouth will be written-up to improve the effectiveness of the USAID/COMFISH support of buoy marking.

### Marking the boundary of the Cayar MPA

The USAID/COMFISH project will contribute to the buoy marking of the MPA of Cayar in partnership with the BMZ project (a German Cooperative) implemented by the WWF-WMPAO. The processes of obtaining bids for buoy production and installation was launched in April and all technical and financial offers have been received. The purchase and installation of tags should take place between July and August 2012.

### Preparations for a fishing capacity work shop

Discussions took place with DPM and SCA on a national fishing capacity work shop. The proposed workshop would bring together all the key organizations (DPM, CEP, CRODT, SCA, DPSP, and GAIPES). The workshop is being planned for July 2012.

## **2.4 Donor Cooperation**

Multiple meetings were held with the members of the COGEPAS project (JICA) focused on a joint strategy of fisheries management and biological data sampling (octopus). The meetings also focused on the participation of the USAID/COMFISH project in co-supporting COGEPAS in the construction and equipping of a new meeting room and office for fishermen in Joal.

## **2.5 Improved Socio-Economic Well-Being**

Studies begun by the APTE association continued throughout this quarter on processing infrastructure in Cayar. The report is soon to be finished, and will touch upon: 1) hygienic quality standards; 2) production capabilities; 3) awareness of good hygiene practices by the women processors; 4) environmental quality standards; and, 5) analysis of key positions to appoint in the production process. A second study is nearing on microbiological analyses of Keccax. The results of this study will serve as a pre-upgrade reference point for the true quality of Keccax in Cayar.

As with the preceding quarter, FENAGIE continued its activities in awareness raising on the objectives of the project and on the Local Convention process. The table below summarizes the activities:

Activities	Participants	Location	Date	Results	Observations
Workshops, awareness raising and capacity building	Professionals of Cayar, Rufisque, Bargny and of Yenne/Dialaw	Cayar	April 27th	29 professionals including 22 male and 7 female informed and sensitized	The theme of the meeting was Local Convention and CLPAs
Public information meetings and sensitization	Professionals of the Department of MBOUR	Department of Mbour	May 21st to 26th	496 actors informed of le USAID/COMFISH project, including 136 female and 360 male	16 meetings were held at beaches and resting places in the three CLPAs: Sindia, Mbour and Joal to inform of the project. They were also informed about the Local Conventions and the process of implementation.

Information workshop on women in leadership	Professionals of the Departement of Foundiougne	Foundiougne	July 4th to 6th	The capabilities of 20 professionals, including 19 female and 1 male were strengthened to improve the organization of the group	The theme of the training was leadership, advocacy, lobbying and gender in hopes to raise women's awareness of their status and their managing responsibilities of their women's group
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## 2.6 Climate Change

During the third quarter the following activities took place:

- Preparation of training events (July 4<sup>th</sup> to the 19<sup>th</sup> 2012) for strengthening the capabilities of the nine CLPAs targeted by the project on the issue of climate change and on the importance of considering natural resources in general in all management strategies. Local fisheries administrative services were contacted to prepare the training module.
- USAID/COMFISH staff participated in a regional workshop held by the International Group of Experts on Climate Change (GIEC) from June 18<sup>th</sup> to the 19<sup>th</sup> in Dakar. The workshop shared the principal results of a report prepared by the GIEC on climate changes and their impacts on West Africa. New dimensions of vulnerability, exposure and resilience were equally presented and discussed.

## 2.7 Strengthening the Capacity of Stakeholders and Institutions

### 2.7.1 Support for restructuring the CLPA of Hann and make operational the ICC

The project brought financial and technical assistance to the restructuring the of the CLPA of Hann and governance capacity strengthening of the coordinating and advising bodies (ICC), as well as an executive bureau and other commissions.

### 2.7.2 Best Management Practices in Fisheries

A national workshop on best management practices was held on June 6<sup>th</sup> and 7<sup>th</sup> 2012. Prior to the workshop, a selection committee was formed, composed of representatives of IUPA (president), WWF (secretary), other institutions (FENAGIE, COPEM, DPM) and one resource person (Madame Minata DIA).

There was strong passion among the participants bringing their proposals for best practices at the workshop. They presented their proposals with detailed explanations on practicality, effectiveness and constraints. In the end, the selection committee awarded two BMPs first prize (one for capture fishing and one for the processing of fish products).



*Figure 10 : Awards to the winners of good fishing and processing practices competition*

The two BMPs along with the rest of those present will be the objects of a report of the GREP (Environment, Research and Media Research Group) that will spread the message of these practices to a wide audience. Also, an exchange visit to share knowledge among the fishing community is being scheduled.

### **2.7.3 Drafting a CLPA capacity building strategy**

A consultant conducted an assessment of CLPA capacity at COMFISH project sites and will formulate a proposed capacity building strategy. The report will be available shortly for validation with CLPA members.

### **2.7.4 Casual coffee chats**

Two casual coffee chats were held by Alliance. They addressed subjects of national interest, including how to ensure continued authorization of Senegal to export fish products to Europe, and the importance of MPAs on fisheries resources, with the example of the MPA of Joal-Fadiouth.



*Figure 11 : Casual coffee chats on the topic of the national approval to export fish products to Europe*



*Figure 12 : Coffee chat on fisheries and Marine Protected Areas*

## 2.8 Cross-Cutting Themes

### 2.8.1 Communications

#### 2.8.1.1 Participation in USA Week

The USAID/COMFISH project took part in a 3-day exposition organized during the time of *US Week* which took place from May 23<sup>rd</sup> to the 26<sup>th</sup> of 2012 in the King Fahd Hotel in Dakar. The exposition was an opportunity for the USAID/COMFISH project to present the project and to respond to questions from visitors (estimated to total over 600 for the three days) and to distribute flyers on the project. It was also an opportunity to collaborate with communications officers of other USAID projects.



*Figure 13 : FTF and USAID/COMFISH posters in the background during US Week exposition*

### 2.8.1.2 Media Coverage

Media coverage was organized for the two coffee-chats and for the workshop on fisheries BMPs. These three events were not only visually documented by photos (available on the project photo database) but they were also reported upon by the media, in this case television (Canal Infos, RTS, 2STV), radio (RFM, Sud FM, Walf FM,), and written press (Le Soleil, Le Quotidien, APS, APANEWS, and Sud Quotidien). Below are links to this media coverage.

- *Coffee chat on fisheries product exports*

[http://www.lesoleil.sn/index.php?option=com\\_content&view=article&id=14759:exportation-vers-union-europeenne-les-acteurs-de-la-peche-se-penchent-sur-les-defis-de-lagrement-national&catid=51:economy&Itemid=63](http://www.lesoleil.sn/index.php?option=com_content&view=article&id=14759:exportation-vers-union-europeenne-les-acteurs-de-la-peche-se-penchent-sur-les-defis-de-lagrement-national&catid=51:economy&Itemid=63)

<http://africnaone.com/?p=3824>

<http://apanews.net/news/fr/article-fas.php?id=173572>

<http://carrapide.com/news/lecture/article/focus-causerie-sur-l-agrement-national-lundi--20734>

- *Coffee chat on MPAs and fishing*

[http://www.sudonline.sn/les-roles-des-aires-marines-protegees-en-debat\\_a\\_8958.html](http://www.sudonline.sn/les-roles-des-aires-marines-protegees-en-debat_a_8958.html)

<http://www.walf-groupe.com/actualites/economie/6086-peche-gestion-des-aires-marines-protegees--des-acteurs-souhaitent-avoir-un-financement-durable.html>

[http://www.aps.sn/articles.php?id\\_article=97846](http://www.aps.sn/articles.php?id_article=97846)

<http://www.cncr.org/spip.php?article741>

<http://carrapide.com/news/lecture/article/societe-conservation-des-ressources-halieutiques-au-senegal-les-roles-des-aires-marines-protegees-en-debat--27557>

<http://carrapide.com/news/lecture/article/societe-causerie-sur-les-fonctions-et-roles-des-aires-marines-protegees-mardi--27173>

### 2.8.1.3 Publications

- *Success story*

A success story on strengthening the role of women in the fishing sector was prepared. Successful methods include the use of local language and alternative communication approaches (dances, songs, tales, etc.), the allocation of speaking time between women and men, and the arrangement of seating during meetings so as to facilitate free expression and greater participation of women during meetings.

- *Bi-weekly report*

A brief on the workshop on strengthening the role of women in the fisheries sector was published in a bi-weekly magazine during the month of April 2012.

- *PowerPoint communications tool*

A PowerPoint presentation providing an overview of the USAID/COMFISH project was prepared in French and English for use by all project staff and partners at national and sub-national meetings and workshops.

## **2.9 Project Management**

### **2.9.1. Partner sub-contracts**

During this quarter, sub-contracts were finalized with the help of all the implementing partners.

### **2.9.2. Coordination Meeting**

Monthly coordination meetings were held with the ensemble of partners in the USAID/COMFISH project locations. This was done to compare results, successes and constraints, as well as to look for opportunities and synergies.

## **3 SUMMARY OF MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER**

### **WWF**

- Start-up and implementation of the action plan for strengthening co-management structures (CLPA), their role and mission.
- Support outreach and extension on BMPs
- Implement the gender strategy
- Develop a strategy for human resource development of MPA managers
- Conduct a diagnostic study of the gaps and constraints of the current management system of the MPAs at USAID/COMFISH project sites
- Monitor buoy markers at the Joal-Fadiouth MPA
- Determine the feasibility of marking MPA boundaries in other USAID/COMFISH sites
- Mark boundaries of the MPA of Cayar with buoys
- Provide support to make the National Scientific Council of MPAs operational
- Support actions that promote ecotourism as an alternative livelihood
- Monitor and evaluate the impacts of MPAs on biological, socio-economic and governance criteria

### **CSE**

- Mapping population density by CLPA
- Mapping migration of stocks
- Mapping an overlap of upwelling / surface temperatures
- Study of the historic evolution of the shoreline of Cayar and Saloum Delta
- Analyze natural and artificial infrastructure vulnerable to inundation scenarios

### **IUPA**

- Study of outreach capabilities of organizations in Senegal
- Workshop on methods to evaluate stocks and circulation of results through public meetings at USAID/COMFISH sites
- Development of a pilot activity on building capacity of fishing communities to practice sustainable fishing (fishing gear, safety at sea, etc.)

### **FENAGIE**

- Workshop on Women in Leadership
- Evaluation missions and consultations with CLPAs

- Organization of an exchange visit between artisanal fishing professionals

### **CRODT**

- Field surveys and analysis of sardinella and other priority stocks will continue throughout the fourth quarter.

### **Communications**

Communication efforts will be focused on the signing of a protocol of agreement with radios in the intervention zones of the project with the goal to permit better communication of project activities and impacts. Also, work will take place on the creation of a video on certain highlighted actions of the project.

### **IUU Fishing**

Work to collect information from a variety of sources on IUU fishing, now and in the past, will continue. This will be used to inform and improve fisheries management plans. In the first or second quarter of FY13, a workshop will be held to review findings and their implications.

## 4 ANNEX

### 4.1 PMP Progress Table

Indicators	FY2011 Target	FY2011 Actual	FY2012 Target	Results each Quarter				FY2012 Cumulative	Achievement notes	Challenges
				Q1	Q2	Q3	Q4			
<b>Result 1: Institutional and stakeholders' capacity strengthened at all levels of governance to implement a co-management approach to sustainable fisheries and to prevent overfishing</b>										
Effectiveness of CLPAs management in USAID/COMFISH project sites	0	0	Baseline estimated for each CLPA		Report on baseline available.			Baseline estimated for each CLPA		
Number of individuals who have received USG supported short-term food safety and productivity training	n/a	38 M (7 W)	700	157 (M) (37 F)	197 (M) 151 (F) Total : 348	513 (M)  182 (F)  695		867 (M) 370 (F) Total : 1237	Participants in 17 meetings to raise awareness of the project objectives by local convention, and participants in workshops	

<b>Result 2: Strategies and policies tested and applied to overcome unsustainable and destructive marine resource use practices that threaten biodiversity conservation, tested and applied</b>									
Number of policies/regulations and administrative procedures <b>analyzed</b>	2	13	11	0	0	0		0	
Number of policies / regulations and administrative procedures <b>drafted and presented for public/stakeholder consultation</b>	0	0	5	2	0	0		2	Two strategies are in preparation : Strategy on the role of women in fisheries management and CLPA Strategy for implementation of Sustainable Management Units  The three Local Conventions of Joal-Fadiouth, Mbour and Sindia are in preparation
Number of policies / regulations and administrative procedures <b>presented for legislation / decree</b>	0	1	3	0	0	0		0	
Number of policies / regulations and administrative procedures <b>prepared with USG assistance passed/approved</b>	0	0	2	0	0	0		0	

Number of policies / regulations and administrative procedures <b>approved and which implementation has begun</b>	0	0	2	0	0	0	0		
Number of farmers and others who have implemented new technologies or management practices with the support of the U.S. government	0	0	0	0	0	0	0		
Numbers of hectares of areas under improved management	n/a	0	17,100	0	0	0	0	Buoys at the Cayar MPA not yet put in place	
Number of hectares of biologically important areas under improved management	n/a	0	17,100	0	0	0	0		
<b>Result 3: Vulnerability evaluation and capacity of vulnerable coastal communities strengthened to adapt to climate change adaptation conducted</b>									
Number of individuals receiving training in global climate change as a result of USG assistance	0	0	860	0	24 (M) 36 (F) Total 60		60	Training on climate change will be held for the members of 9 CLPAs	400 in Q3 is estimated. Paperwork evidence is still being processed.
Number of climate vulnerability evaluations conducted as a result of USG assistance	0	0	3	0	0	0	0		

Number of laws, policies, agreements or regulations addressing climate change proposed, adopted, or implemented as a result of USG assistance	0	0	0	0	0	0		0		
Number of stakeholders with increased capacity to adapt to climate variability effects as a result of USG assistance	0	0	790	0	0	0		0		
<b>Result 4. Sustainable fisheries management promotes increased socio-economic benefits for fishers communities</b>										
Number of food safety private companies (for profit), producers organizations, water users associations, women's groups, men's groups, men and business women associations, and OCBs that benefit from USG assistance.	0	0	21	0	61	57		118	Number of organizations that participated in the workshops and other outreach meetings organized by the project	
Number of rural households that benefit directly from USG interventions	0	0	TBD	0	0	0		0	A census of households in the intervention sites USAID / COMFISH will be conducted in order to estimate the target	
Perception by fishery stakeholders of their welfare as impacted by USAID/COMFISH	n/a	No Target. Survey results will be analyzed and reported. Baseline is being conducted.								

## 4.2 List of Documents Produced

Date	Author	Title
April 2012	Madeleine Hall-Arbor	Snapshots of Women's Roles in Senegal's Fishing Industry: Then and Now, Powerpoint (French)
April 2012	Madeleine Hall-Arbor	Snapshots of Women's Roles in Senegal's Fishing Industry: Then and Now, Powerpoint (English)
April 2012	Claude Sene	Building Indicators for Performance Monitoring-Assessment of Senegalese CLPA's, 36 p.
April 2012	Djiga Thiao, Hamet D. Diadhiou, et Moustapha Deme	Description of the statistical series on effort, catch and hydroclimatic environment at the Cayar, Mbour and Joal sites
April 2012	CSE	Dynamics of land, and implementation of a geographic information system
April 2012	IUPA	Establishment of a system of data collection for the fisheries of sardines, bonga, white grouper, shrimp and octopus  Quarterly Report 1: January to March 2012
May 2012	Niane, Vaque Ndiaye , Chris Mathews	Census of shrimp fishing in the Sine Saloum area, 27 p.
May 2012	Minata Dia, Aminata Mbengue, et Khady Sané Diouf	Preparatory Workshop: Gender and CLPA for the sustainable management of stocks, February 23, 2012
May 2012	Ibrahima Niamadio, Khady Sané Diouf, et Aminata Mbengue	Report of the national workshop to identify and develop a strategy for strengthening the role of women in the management of artisanal fisheries  Dakar from March 20th to the 22nd 2012
May 2012	Minata Dia	Strategy for capacity building of the CLPA in the area of intervention of the USAID / COMFISH project

### **4.3 Financial Report**

At the end of the 2012 third quarter, total spending reached \$1,761,897. This represents 55% of the annual budget.

Total spending comes from

- In country: \$755,810
- URI: \$1,006,087

The URI expenditures include wire transfers to sub-contract partners (WWF, APTE, CSE, IUPA, etc.).