Gambia-Senegal Sustainable Fisheries Project

3RD Quarterly Report
April 1, 2010 –June 30, 2010

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Executive Summary

The ***Ba Nafaa*** project is a five-year regional initiative that promotes sustainable fisheries in the Senegal-Gambian marine ecosystems. This 3rd Quarterly report covers the three month implementation period from 1 April 2010 to 30 June 2010. Project priorities during this time concentrate on the sole and oyster fisheries, the activities that were planned and implemented in the 3rd Quarter. The report also covers project activities that were started during the 1st and 2nd Quarters and were on-going during the reporting period. Two other specific fisheries are part of the ***Ba Nafaa*** project – sardinella and shrimp. As planned, the only activities initiated in these fisheries during the 1st Quarter and continued into the 2nd Quarter were namely: the value chain assessment of the shrimp fishery, and outreach and awareness raising meetings with sardinella Community Fishing Centers, both were on-going during the 3rd Quarter.

In both the sole and oyster fisheries, a major goal is the development of comprehensive co-management plans that ensure the sustainable development of the fisheries and enhanced benefits to fishery sector participants. The oyster fishery is critical to the livelihood of more than 500 women gatherers, processers and sellers, and the sole fishery involves some 20,000 fishers, traders, and primary and secondary processers. Sole is one of the commercially important fish species that supplies the industrial fish processing and export companies in The Gambia.

Following up on the recommendations made at the multi-day training workshop on sole stock assessment and the sole co-management planning workshop held during the 2nd Quarter, the Fisheries Department and Ba-Nafaa began work on the sole by-catch assessment and sole stock assessment in the 3rd Quarter. With improved stock assessment capabilities, the sole fishery is on a path to becoming the first fishery in Africa internationally certified as sustainable by the Marine Stewardship Council (MSC). Other priority activities under the Sole Fishery program carried out in the 3rd Quarter were the following: the setting up of sole co-management committees in seven (7) Community Fishing Centers; the establishment of the Interim Co-management Committee of the Sole Fishery; the study tour to Cayar, Senegal; and consultations with stakeholders on several key issues including the constitution of the Sole Co-management Committee, and the elements to include in the drafting of a comprehensive co-management plan for the sole fishery. Also, planning meetings between the Fisheries Department, Community Fisheries Centers and Ba-Nafaa project for the registration of artisanal fishing vessels were held during the 3rd Quarter. It has been agreed with the Fisheries Department that the Ba-Nafaa project will support the registration of the fishing vessels in the coastal fishing villages, and the Fisheries Department will undertake the registration of the fishing vessels in the inland areas (estuary and river). The registration activity will be conducted during the 4th Quarter.

Under the Oyster Fishery program, the activities undertaken during the 3rd Quarter included the Water Quality Assessment Training Seminar, the expansion of the oyster aquaculture training from nine to fifteen communities, oyster stock assessment and oyster research, validation of the PRA reports, training in improved oyster and cockle processing and packaging, community meetings on conflict resolution on territorial use rights issues, to enact by-laws for the oyster fishery, and identify elements to form the basis of a management plan. Also in the 3rd Quarter, the project signed a Grant Agreement with the TRY Association of Women oyster and cockle

harvesters as part of the strategy to strengthen the Association. The partnership between the Ba-Nafaa project, the TRY Association of Women Oyster and Cockle Harvesters, Fisheries Department and the Department of Parks and Wildlife Management continued in the 3rd Quarter.

In addition, the final edits of the value chain assessment reports on the sole and shrimp fisheries were made during the 3rd Quarter. The value chain assessments are meant to identify entry points for improving wealth creation and effectiveness in the value chains from fishing to processing to final sale. The reports will be finalized for publication in the 4th Quarter. Also in the 3rd Quarter the project collaborated with the Embassy of the United States of America to organize a 2-day training workshop on HACCP.

Under the Biodiversity Conservation component of the project, the ICAM project continued to support the project in the turtle monitoring activity along the Atlantic coastline during the 3rd Quarter.

Under the Capacity Building program, Mr. Ibrahima Mat Dia (WWF Country Program Director) and Mr. Famara Drammeh attended the Climate Change Institute Training Course at the University of Rhode Island during the 3rd Quarter. Also, the project requested the Department of Fisheries to take action on finding university placement for two staff for BSc degree studies in West African universities.

1. Introduction

1.1 Background

The ***Ba Nafaa*** project is a five-year regional initiative supported by the American people though the U.S. Agency for International Development (USAID)/West Africa Regional Mission. It is implemented through the University of Rhode Island (URI)-USAID cooperative agreement on Sustainable Coastal Communities and Ecosystems (SUCCESS). The World Wide Fund West Africa Marine EcoRegional Program is the regional implementing partner. Project activities are carried out in partnership with the Department of Fisheries (DoFish) and stakeholders in the fisheries sector in The Gambia and in Senegal. The focus is on sustainable fisheries management including the shared marine and coastal resources between The Gambia and Senegal. However, most field activities are in The Gambia.

Period of Project:

The Cooperative agreement effective dates extend from May1, 2009 to April 30, 2014.

Planned Life of Project Value:

The total estimated cost of the project over the five year period is US$ 2.5 million.

Principal Target Beneficiaries:

Direct: The direct beneficiaries of the project are the fisher folk (fishers, fish processors, fish traders, boat builders, fisheries mechanics, premixed fuel vendors, fishing communities and the economic operators involved in the market value chain), the fishing industry, government institutions (Fisheries Department and Department of Parks and Wildlife Conservation), non-governmental organizations (GAMFIDA , NAAFO and TRY) are also direct beneficiaries. The oyster and cockle harvesters are also directly benefiting from the project.

Indirect: The indirect beneficiaries include the consumers, non-fishing businesses such as canteens, retail shops and restaurants established in Community Fisheries Centers, community-based organizations, and other local government agencies not mentioned above.

Structure of this Report:

The 3rd Quarterly report describes the activities that were implemented between 1 April 2010 to 31, May 2010 of the planned Year 1 work activities of the *Gambia-Senegal Sustainable Fisheries Project (**Ba Nafaa**)*. Most of the project activities were the continuation of work started in the 1st and 2nd Quarters. The report is organized into several components. First, background information as well as Project goals and key results expected over the life-of-the-project are described. This is followed by a detailed description of Project activities and accomplishments during this reporting period. Appendix 1 provides a summary of the performance management plan framework, indicators and Life-of-Project targets and the results achieved for each performance indicator to date.

1.2 Program Goal and Key Results

The goal of the ***Ba Nafaa*** Project is to support the Government of The Gambia in achieving its fisheries development objectives by contributing to the following vision:

> *Artisanal fisheries and coastal ecosystems in The Gambia and selected stocks shared with Senegal are being managed more sustainably, incorporating significant participation of fisherfolk in decision-making, and attaining improved economic benefits for both men and women involved in the market value chain.*

Ba Nafaa builds on the on-going efforts of the Department of Fisheries in The Gambia, working with several community fisheries centers and their management committees to improve fisherfolk involvement in the management of fisheries resources. More specifically, to further the development and implementation of the draft fisheries management plan for sole, sardinella, and shrimp. Shrimp and sole are important export commodities so this involves partnerships with export processing businesses as well. As gender equity is another important aspect of the project, ***Ba Nafaa*** is benefiting both men and women in the fisheries sector by also working with oyster harvesters—a women-dominated fishery whose importance is often under-recognized.

Key Results for the ***Ba Nafaa*** Project are to:

- Contribute to government objectives of sustained and increased social and economic benefits for artisanal fishing communities including food security, increased income and employment.
- Institutional capacity at all levels of governance to implement a fisheries co-management approach is strengthened in order to sustain socio-economic benefits for fisherfolk and other beneficiaries in the market value chain.
- Unsustainable and destructive marine resource use practices, including bycatch of marine turtles and juvenile fishes, are reduced.
- Key habitats and marine areas important in the life stages of commercially important fish as well as threatened and protected species of marine turtles and mammals are protected.

Project Strategies

- A participatory co-management approach that engages fisherfolk in decision-making.
- An ecosystem-based approach that looks not only at the fish, but protection of critical habitats and reduction of fishery impacts on threatened marine species
- Mainstreaming gender dimensions that provide opportunities for both men and women to benefit economically and participate in decision-making.
- A threats-based approach to coastal and marine biodiversity conservation.

Within The Gambia, specific objectives are to:

- Strengthen the capacity of community fisheries centers to manage fisheries and engage in more effective enforcement of rules through training and learning-by-doing.
- Strengthen the capacity of the DoFish and community management committees to conduct fisheries stock assessments and implement community-based management plans.

- Identify and then implement opportunities for improvements in the value chain of the key species of economic importance, including export opportunities that provide socio-economic benefits to Gambians.
- Establish community-based protected areas to serve as critical habitats for marine turtles and mammals and as spawning and nursery grounds for commercially important fish.

Regionally, the Project aims to:

- Strengthen regional management of shared stocks by addressing licensing and registration issues for domestic and foreign fishermen.
- Improve international trade competitiveness through harmonized policies.
- Increase regional cooperation for conservation of marine turtles and mammals.
- Promote bilateral exchanges of communities and government officials to share lessons and experience in improved management of fisheries.

Geographic Scope. The Project concentrates its activities on the marine and coastal resources and fisheries stocks shared among the Casamance, the Gambia River and Saloum Delta region—an area of regional biodiversity significance (see Figure 1). The majority of on-the-ground activities occur in The Gambia, where ***Ba Nafaa*** focuses on the artisanal nearshore fisheries along the Atlantic coastline as well as the estuarine- and mangrove-dominated portions of The Gambia River (see Figure 1 below). A sister project in Senegal, called the Wula Nafaa project, is working on fisheries management in the Saloum Delta and Casamance River. Together, these two USAID-supported initiatives are expected to have a significant impact on improved management of this biodiversity-rich area.

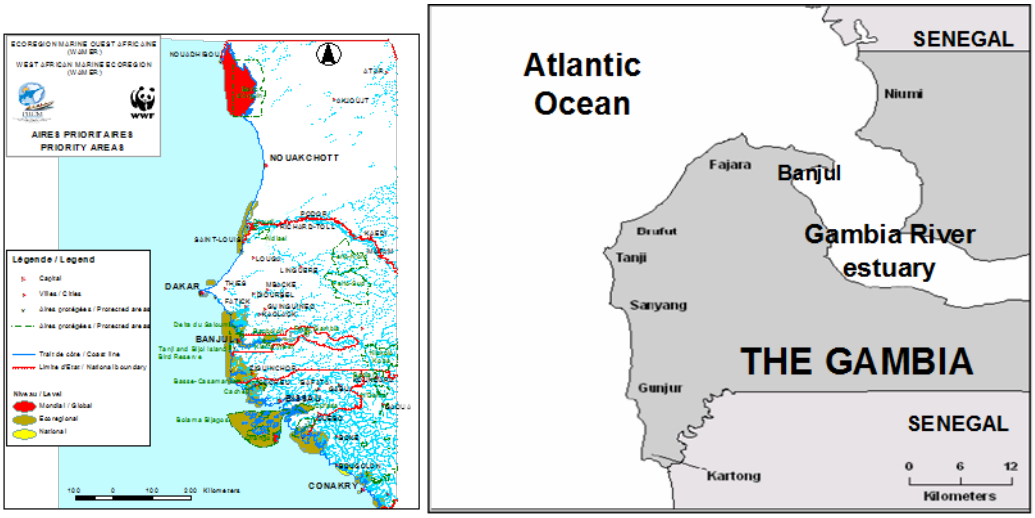


Figure 1. Areas of Biodiversity Significance in the WAMER and The Gambia River Estuary and Atlantic Coast

2. Progress on Year 1 Workplan Elements

The work priorities for Year 1 concentrate on the sole and oyster fisheries in The Gambia and regional exchanges with Senegal. The plan is to engage in only a few limited activities this year in the shrimp fishery which is a bit more dispersed in terms of landings and more complicated in terms of the management issues. While part of the original plan was to work with the sardinella fishery, this was reconsidered as the *Ba Nafaa* Project will not have the capacity to develop a comprehensive regional management plan at the scale necessary for this fishery. The Project will still make a few contributions to moving towards sustainable management of this fishery at the local scale—e.g. addressing bycatch issues and fish smoking impacts on the fuel wood supply and local forests. The choice of additional emphasis and species focus other than sole and oysters will be deferred until there have been additional consultations regarding priorities and based on rate progress with the oyster and sole fisheries.

2.1. Administrative Start-Up

The Administrative set up of the Ba-Nafaa project is completed.

2.2. Sole

Background

Sole is one of the commercially important species and export earners in The Gambia, but is harvested primarily by artisanal fishermen. Total landings in The Gambia in 2006 were 1370MT, mainly caught by artisanal fishermen along the Atlantic coast. In addition, a portion of the catch is taken in deeper waters by the industrial trawl fisheries that operate in Senegal and Gambian waters. None of this fish, however, is landed in The Gambia for lack of port facilities. The Department of Fisheries estimates that the industrial fleets when in Gambian waters harvest 371 MT from The Gambia.

The Government and sole fishery stakeholders are supporting international certification of the fishery. A pre-audit was conducted by MSC (Marine Stewardship Council), so a clear road map of sustainability issues has been formulated. The Department of Fisheries drafted a management plan for sole, but with very little participatory engagement of stakeholders. The majority of the catch is landed at only a few sites, making it relatively easy—as compared to other fisheries that are much more geographically dispersed—to engage with fishermen in developing a management plan and management measures necessary to achieve MSC certification as a sustainable fishery.

The Ba Nafaa goal in terms of the sole fishery is to assist the fishing industry associations—The Gambia Artisanal Fisheries Development Agency (GAMFIDA) and the National Association of Artisanal Fisheries Operators (NAAFO)—and the DoFish to meet the sustainability criteria required to be eligible for MSC certification. The MSC audit report identified very specific areas for improvement in order to meet the sustainability criteria. Landings need to be more consistently monitored, stock assessments periodically conducted, among other measures. The Program is assisting the Department of Fisheries in implementing the recommendations in the

sole pre-audit report. The geographic focal areas are the primary sole landing sites along the Atlantic Coast.

Report Period Accomplishments

Study tour to Cayar, Senegal. (13 – 18 June 2010)

The Study Tour was one of the planned activities of the Year 1 workplan of the Ba-Nafaa project. The main purpose of the study tour was to learn about the Cayar experience in artisanal fisheries co-management. The main areas of focus of the tour were the following: the evolution/history of fisheries co-management in Cayar; the structure and functioning of the co-management committee and sub-committees; the co- management of fisheries infrastructure and fisheries resources; participating agencies/institutions and partners in the co-management regime, their duties and responsibilities.

Cayar Beachfront

General Information

Cayar is situated on the northern coast of Senegal and about 50 km north of Dakar the capital city of Senegal. Cayar has a population estimated at 15,000, the vast majority of whom derive their livelihoods from fishing and related activities. Traditionally, the citizens of Cayar were equally engaged in fisheries and agriculture, fishing during the dry season and farming during the rainy season. This respite from fishing during the rainy season allowed fish to grow and multiply, and fish catches were always good when they resumed fishing. The situation has changed somewhat because nowadays the citizens are more engaged in fishing and related activities than in agriculture.

Presently, there are about 1200 fishing boats operating from Cayar, all of them are motorized. Total fish catch landing in 2008 was about 50,000 metric tons, almost 70% comprised pelagic fish species. The total commercial value of the landings was estimated at 8 billion CFA Francs. (1US$ = 500 CFA), or approximately US$ 16 million.

Meeting between the Gambian delegation and the Cayar Co-management Team

Major Lessons Learned

Fisheries resources conservation and management is a long standing tradition in Cayar. Going back several generations, the citizens of Cayar consider the fisheries resources as their own God given heritage and they have always stood firm to protect and safeguard them to continue to benefit present and future generations. The preferred fishing method employed by the vast majority of fishers is the hand line which is the most selective fishing gear and augurs well for sustainable fisheries. A small number of fishers use the purse seine net to fish for pelagic species.

The citizens of Cayar have resisted the call of central Government to open the fishery to outsiders (fishers from other regions) who employ fishing gears/methods and techniques they consider destructive to the resource base. There have been many occasions when citizens of Cayar mounted maritime patrols and forcibly removed set gill nets from the water, took them ashore and burnt them. Similarly, longline fishers found operating in rocky areas had their lines confiscated and set alight upon reaching the shore. This resistance once resulted in a major

confrontation with the Government authorities and resulted in the death of a citizen, many injuries and prison sentences to the leaders; but the incident did not deter them but reinforced their will to continue resisting the use of fishing gears, methods and techniques they consider harmful to the fish resources. It should be pointed out that the citizens of Cayar are not anti-foreigners; instead they welcome fishers from St. Louis, Fass Boye and other fishing villages who wish to fish in accordance to their rules.

Confiscated Illegal Longline

Choosing dialogue rather than continued conflict and confrontation, Government decided to engage with the people, which led Government to understand that the resistance was being fuelled by the desire and readiness to conserve their God given natural heritage (fisheries resources). Under a co-management arrangement, legislation has been promulgated in support of the management measures put in place by the citizens of Cayar. Some of the management measures en-force in Cayar include:

- set gill nets are prohibited within a 37 nautical mile radius of Cayar; the nylon monofilament net has been banned
- long lining in rocky areas is not allowed
- only daylight fishing is permitted, fishers set out in the morning and return late afternoon or early evening

Catch quotas: For the artisanal demersal fishery, fishers are permitted to land no more than 45 kilos of fish (three polyboxes) per fishing day. This is a management measure to limit catches/landings, and it is also intended to control fish prices and ensure that those involved in the value chain are deriving most economic benefits. The catch quota is rigorously enforced and fines/penalties' are readily imposed.

Fish Processing: It was observed that fuelwood is not used to smoke fish. The women use the leaves of the Casuarina (whistling pine) tree to smoke fish. The Casuarina is a shoreline tree that act as wind breaks and stabilize the shoreline. This fish smoking method has two positive environmental attributes: saving the forest (not using fuelwood) and preventing coastal erosion. There was not much time for the Gambian delegation to see how fish smoking is done using the leaves of the Casuarina tree, but there was an expression of interest by the women in the Gambian delegation to conduct experiments in Brufut to assess the end product in terms of its quality and shelf-life. The Casuarina tree grows well in The Gambia. The use of the leaves of the Casuarina tree can be an activity/area of study during Year 2 under the Sardinella program.

Credit Scheme: The Credit scheme referred to as *Credit Mutuel* is being managed in a simple, successful and transparent manner. The rate of repayment is very high at about 98%. Members can apply and receive the loan within a day, for example, a fish dealer can borrow money to buy fish on any given day and will receive the money without having a guarantor. Only when there is a case of default will the credit office inform the co-management committee and pressure is applied for prompt repayment; but this rarely happens.

Environmental (Beach) Sanitation: There is a special committee elected to ensure that the fisheries complex area, including public and private infrastructures, is kept clean at all times. There is daily monitoring of the area and fines and penalties are imposed on people who violate the rules.

Monitoring, Control and Surveillance (MCS) and Sea Safety: Within the Fisheries Center, there is a well equipped MCS office (radar, UHF and VHF radios, and satellite link to Headquarters in Dakar, patrol boat and skilled personnel who are also responsible for safety at sea.

Marine Protected Area (MPA). The MPA was created by Presidential Decree on 4 November 2004. It is headed by a Captain of the Department of Parks, assisted by a Lieutenant, four officers and local volunteers with official uniforms. The MPA was identified and mapped out by the fisherfolk and the geographical coordinates fixed by GPS. The fisherfolk are actively participating in the management of the MPA.

Fish Quality Assurance: Under an EU funded program to improve health and hygiene conditions in artisanal fish landing sites, a fish quality control laboratory was established at the Cayar fish landing sites. Laboratory tests to determine fish quality are conducted by qualified quality control officers who also record all data. Fish inspected and certified OK are stored in freezers kept below freezing point. The fish is destined for the export market.

Fisheries co-management: The main stakeholders in the co-management arrangement/regime are the following;

- Interprofessional Grouping of artisanal fisheries operators called "Yallay Mbaneer ak Feex- Gui"
- Local Council for Artisanal Fisheries (CLPA)
- Department of Fisheries and Surveillance
- Office responsible for the Marine Protected Area (MPA)
- Gendarmerie
- Office of Mayor of Cayar

The Interprofessional Grouping "Yallay Mbaneer ak Feex-Gui" was created in February 2000 and membership comprises eight local and national artisanal fisheries organizations:

- National Committee of Artisanal Fishers of Senegal (CNPS)
- National Federation of Artisanal Fisheries Operators (FENAGIE Peche)
- National Federation of Fish Dealers of Senegal (FENAMS)
- Village Development Committee (CVD)
- Fisheries Committee of Cayar (CPC)
- Organizations of purse seiners and surrounding net fishers
- The Women Fish Processors and Petty Traders
- Youth of Cayar (JADK).

The Grouping is responsible for the management of the fisheries infrastructure (established under aid programs by L'Agence Francaise de Developpment (French Development Agency) and the Japan International Aid Agency (JICA). The Grouping is also responsible for the management of infrastructure (buildings) within the fisheries complex area established by private investors. The members of the Executive Committee are elected to 2-year terms and can serve for only two terms. The day to day management of the infrastructures is entrusted to salaried professionals who are supervised by the Executive Committee. ***The management functions of the Interprofessional Grouping are similar to those of the Management Committees of the Community Fisheries Centers in The Gambia.***

The management objectives for the development of the artisanal fishery of Cayar are as follows:

- Improvement of traditional fisheries (catching and landing);
- Professionalize artisanal fishing and related activities;
- Promote private investments within the fisheries complex area;
- Building the capacities of fisheries professionals through training.

The co-management of artisanal fisheries in Cayar can best be described as an evolving success story, much has been achieved so far, and more yet to be achieved. The study tour was a worthwhile venture and important lessons were learnt.

Applying Lessons Learned from Cayar to The Gambia:

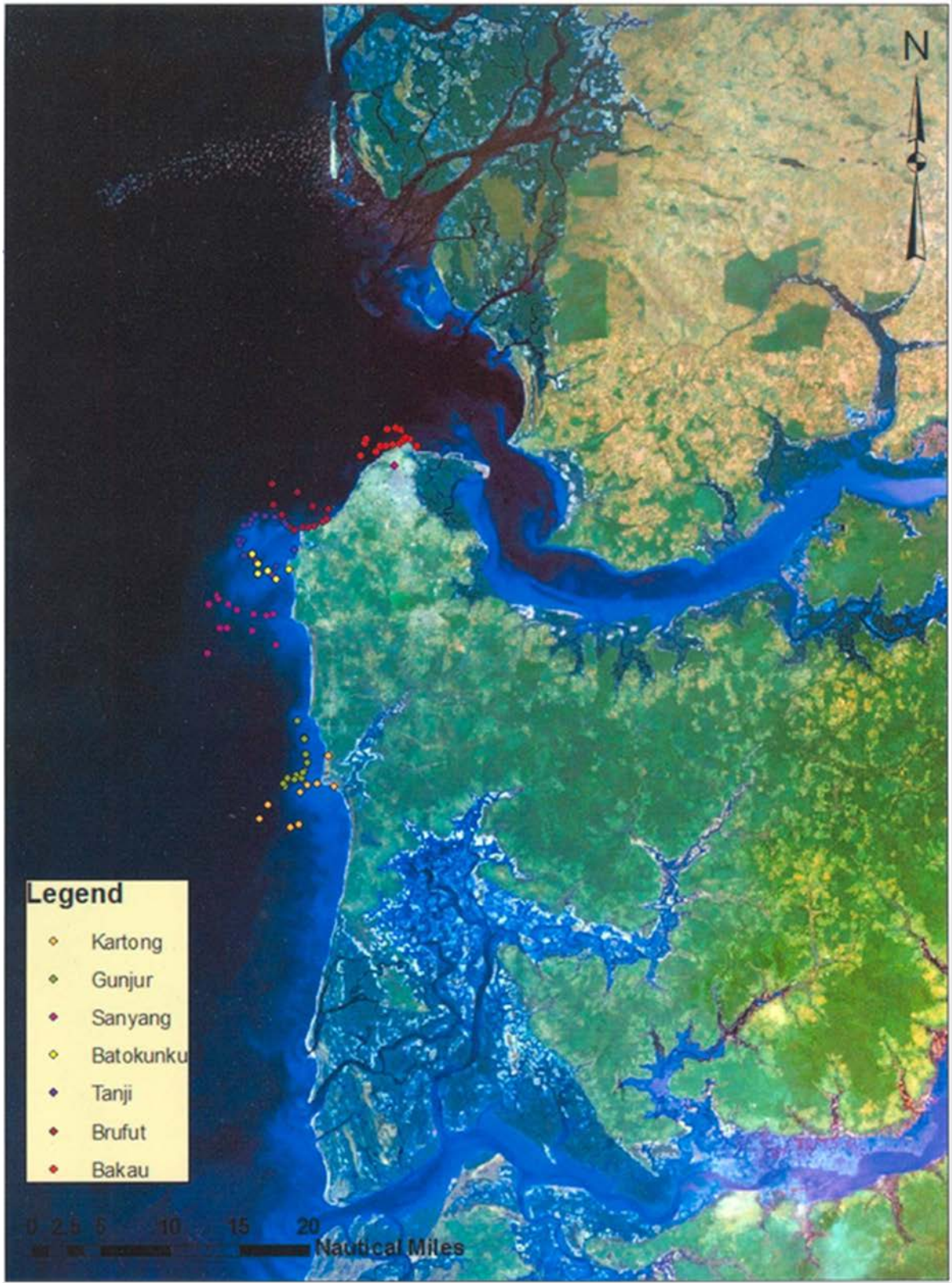
- The administrative structure for artisanal fisheries co-management already exist in The Gambia in the form of Community Fisheries Centers and their functions, but the governance level, the levels of effectiveness and professionalism (commitment, dedication and efficiency) are below that of Cayar. This was quite evident to the Gambian delegation during the visit and the experience gained from the tour can be applied in the Gambia. The management committees of the Community Fisheries Centers should be further strengthened and the governance regime further improved. Similar to Cayar, the fisheries infrastructures are rented out to users and fisheries credit/loans are given to fisherfolk through the Community Fisheries Centers; however, the default rates in loan and rental repayments are very high in the Gambia, and the management committees have not been effective in ensuring proper and prompt repayments as is the case in Cayar. The level of commitment, dedication, efficiency and effectiveness of the management committee of Cayar can be emulated in the Gambia.
- The importance of the Casuarina tree as wind breaker and in stabilizing the shoreline, and the use of the leaves to smoke fish were new to the Gambian delegation. The Casuarina tree is abundant in the Gambia but knowledge about its usefulness is limited; the tree is mainly planted alongside the outer perimeter of home fences. Given the serious problem of coastal erosion in the Gambia and our heavy dependence on fuelwood for fish smoking, it is important to consider planting the tree along the beach front to stabilize the shoreline, and use the leaves to smoke fish. In order to do this, the Ba-Nafaa should collaborate with the management committees of the Community Fisheries Centers, Department of Forestry and the Ministry of Forestry and Environment. The use of the leaves of the tree to smoke fish has huge potential in the Gambia but it requires further study. Gambian fish smokers should visit Cayar to study the fish smoking technique (the smoke oven of Cayar is a bit similar to the Gambian oven). It is also important to subject the end product to biological and chemical tests in terms of quality, shelf life and wholesomeness. Given the abundance of the Casuarina tree in the Gambia, it will be important to start thinking about how the leaves can be collected and transported to the fish smoking sites before the maturity of the trees planted along the shoreline.
- The active involvement of the fisherfolk in fisheries surveillance (collaboration with the Fisheries Department and the officials of the Marine Protected Area) can also be emulated in the Gambia. Without the involvement of fisherfolk in monitoring, control and surveillance in artisanal fishing grounds, it will be difficult to curb IUU fishing. Awareness creation and sensitization campaigns are important tools in this regard.
- There are no Marine Protected Areas in the Gambia. The Ba-Nafaa project will encourage and support the establishment of MPAs. The Ba-Nafaa project has completed the mapping of hot spots and spawning grounds for sole fish in collaboration with local fishers. According to traditional (local) knowledge, most fish species spawn around the same time,just before the onset of the rainy season (April to June/July) and they come from deep waters (the ocean) to spawn in shallow coastal waters and in the estuarine area. During community meetings under the sole fishery program, certain communities (Bakau, Tanji and Gunjur) have expressed their desire to establish “closed areas” to protect juvenile fish and spawning areas. These discussions should continue and may lead to agreement on “closed areas” as a first step to establishing MPAs. Also, there are legal provisions in the Fisheries Act for the establishment of Special Management Areas, Closed Area and Closed Seasons. The legal provisions coupled with the desire to protect

nursery and spawning areas, offer hope that MPAs can be established in the Gambia in the near future.

- Establishing term limits for the members of the Executive committee of Cayar is a good lesson and can also be applied in the Gambia. In the Gambia, Executive committee members tend to serve for long periods of time and this is not quite democratic, they seem indispensible, they have too much power and can influence decisions; and they are averse to change. It is good to change the team from time to time and allow others to serve (equal opportunity).
- The control of fishing effort as practiced in Cayar can best be described as unsustainable and should be seen as a short-term management measure. Limiting catch quotas to 45 kgs per boat can only stabilize fish prices but not the effect on the population of fish stocks as long as the fishery remain open access. There are too many fishing boats in Cayar (1200) and there is no legislation/regulation to limit access, so the number of fishing economic units can increase as long as the fishers operate in accordance to the rules. During one of our meetings in Cayar, the Project Manager of Ba-Nafaa raised the issue of reducing the high fishing effort and informed them that sooner than later, they will have to address the issue; they must reduce the number of fishing boats to avoid overexploitation of fish stocks and the eventual collapse of the fishery. In the Gambia, the focus should be on limiting access and enforce regulations on zonal limitations and mesh sizes. Eventually, the Gambia will also be confronted with the same problem to reduce the number of fishing boats. This issue has social and political ramifications: the majority of fishers along the marine coast are Senegalese and they will be the first ones to be affected by a management decision to reduce the number of fishing boats in the Gambia. The Gambia-Senegal Reciprocal Fishing Agreement allows artisanal fishers from both countries to fish in the waters of each country without hindrance; the only conditionality is that the fishers must land their catch in the country in which they are based. However, the reality is that Gambian fishers are sedentary and not migratory, and there is no Gambian fisher based in Senegal.

Mapping of Hot Spots and Spawning Grounds

The mapping exercise was completed in the 3rd. Qtr in Bakau on 23 April 2010. The exercise covered the South Atlantic Coast from Kartong to Bakau. A preliminary map has been sketched based on GPS readings. The local names of the Hotspots and spawning grounds are available to the project. The Map will be finalized in 4th. Quarter.



Map of Hotspots and Spawning grounds of Sole

Sole by-catch assessment

Starting in the 3rd. Quarter, the project involved sole fishers in a participatory research activity to obtain a true account of the sole by-catch. The by-catch is classified according to species and weight, gear type and sizes. The fishing area, sea and weather conditions are recorded, and the absence or presence of turtles and other ETP species in the sole fishing nets is also recorded. Such data was not being collected by the Department of Fisheries.

Mr. Gibril Gabis, Ba-Nafaa staff attached to the Sole Fishery program and sole fishers in Kartong, Gunjur, Sanyang and Brufut are participating in the by-catch study which started on 25May 2010. Preliminary findings are that although sole is the target species, the bulk of the catch of the sols fish net comprise a variety of fish species that are consumed locally. Mesh sizes of fishing nets range from 36mm to 46mm as a result of which fish species of different sizes are caught (big, medium and small). Small fish and small crabs are discarded because they have no commercial value. However, the fishers of Kartong have agreed among themselves that no one should use nets with mesh size less than 42mm to ensure that only mature fish are caught. The assessment is on-going.

Sole stock assessment

Following the stock assessment training course held in the 2nd. Quarter, it was agreed that the Department of Fisheries should assume the responsibility to lead the stock assessment program. It was recommended that Mr. Asberr Mendy, Principal Fisheries Officer, should continue training the workshop participants on a periodic basis so that knowledge gained from the course will not be lost. A detailed Terms of Reference for conduct of scientific research on the Sole Fishery (Data collection on Catches and Landings, and by-catch assessment) was signed by Mr.Asberr Mendy (Fisheries Department) and Mr. Ousman Drammeh (Ba-Nafaa). The TOR detail out the research activities to be undertaken, assigned persons, and Deliverables (reports to be prepared and submitted by Mr. Asberr Mendy. The assessment will commence beginning of August 2010 for an initial period of 3 months.

Vessel registration/licensing

The registration and licensing of artisanal fishing boats has been rescheduled to be conducted during the 4th Quarter. The project will support this activity through the management committees of the Community Fisheries Centres. The project will support the activity in the coastal fish landing sites, and the Fisheries Department will undertake the activity in the inland areas (estuary and river). The management committees of the coastal CFCs have already been sensitized by the project.

The Gambia Maritime Authority and the Wula-Nafaa project in Senegal have expressed interest to collaborate with Ba-Nafaa in the conduct of the exercise; they will be duly notified.

Coordinate with West Africa Trade Hub on exploring new markets for sole, shrimp or other possible export products

There were consultations between the Trade Hub and the project and efforts made to exhibit Gambian seafood products at the Boston Seafood Show in March 2010. The Atlantic Seafood Company was to exhibit the sole fish, and the Tanji Community Fisheries Centre (CFC) was to exhibit a variety of smoked products. No Gambian seafood products were exhibited at the Boston Seafood Show because of late travel arrangements by the Tanji CFC, and Atlantic Seafood Company opted out for reasons that the high energy costs will render its product non-competitive in the US markets. The company is counting on the sole getting an eco-label from the Marine Stewardship Council in the near future which, hopefully, will make the product attractive to US consumers with preference for sustainable seafood products. However, the Tanji CFC shipped samples of smoked product to the US in the 3rd. Quarter. Nowadays, at least one 40 foot refrigerated container of seafood products (mainly smoked fish) is shipped to the US every 6 weeks.

Assess more carefully the Senegalese trawler/seine fishery

No activities undertaken during this quarter.

Value chain assessments

The Value Chain Assessments of the sole and shrimp fisheries were approved during the 3rd. Quarter and will be finalized for publication during the 4th.Quarter. The Value Chain Assessment for the oyster fishery is considerably delayed.

Outputs

Table of Expected Year 1 outputs vs Actual

Expected Year 1 Outputs	Actual To Date
25 persons trained	18 persons trained in stock assessment (16 persons fully trained, 2 partially trained). In 3rd. Qtr, 15 persons (fisherfolk representatives, representatives of GAMFIDA and NAAFO, representatives of Department of Fisheries, and Ba-Nafaa staffs) benefited from the fisheries co-management study tour to Cayar, Senegal.
Action plan developed for achieving sustainable sole fisheries	Action plan developed during 2nd. Co-management Workshop (23-24 March 2010)
500 persons/stakeholders engaged in sole management plan development and adoption	109 persons have participated in formal co-management workshop events and hundreds more have participated through informal meetings and discussions at the

Expected Year 1 Outputs	Actual To Date
	fish landing centers. Sole management committees already set-up in the principal sole landing sites: Kartong, Gunjur, Sanyang, and Brufut. Sole management committees also set-up in Bakau, Tanji, and Batokunku/Tujereng. 2 fisheries non-governmental organizations (GAMFIDA and NAAFO) are also engaged. Actual number of persons engaged difficult to quantify due to the informal approach of so much o the extension interactions, other than in formal meetings when participant lists are circulated.
Sole management plan drafted and adopted by DoFish and stakeholders	Sections of the management plan have been drafted and will be further developed during 4th Quarter. Adoption unlikely by the end of this workplan year and will be delayed until Year2.
Report produced on the issues of sole fishing gear by-catch	Report on LK (Local Knowledge) produced. Scientific research on sole by-catch started in 3rd. Quarter.
Report produced on value chain for sole	Value Chain Assessment Report reviewed, final edits made. Approval of report expected early 4th. Quarter.
One small-scale (CFC?) facility improved, location to be determined during the community participation processes	Facility for improvement not yet determined. Brufut CFC identified for early action (Water and Sanitation facilities) but budgetary allocation insufficient.

Key Results

No.	Indicator	Target	Actual (Oct09-June10
2	# receiving assistance packages	1 facility improved and benefitting all sole fishermen	TBD
4	# of agencies or management bodies strengthened or created	4 (3 centers & Department of Fisheries)	Sole co-management committees established in 7 CFCs (Community Fisheries Centres). Interim Sole co-management committee established and functional in 3rd. Qtr; the committees will be formalized as part of the final management

No.	Indicator	Target	Actual (Oct09-June10
			plan. DoFish capacity for conducting stock assessment strengthened through stock assessment training. NAAFO also benefitted from the training but representative did not attend the whole period.
5	# of personnel trained in resources management	60	127 (18-stock assess., 93-co-mgt workshops)
6	Improvements on a governance scorecard	# is increasing	Sole baseline not scored yet
8	# individuals participating in regional meetings and/or exchanges	25 (Kayar)	15 participated in Cayar study tour in 3rd Qtr. (budgetary constraint caused reduction in number that participated in the tour).
9	# of regional workshops/meetings on policy reform	N/A	N/A
10	No of reports documenting transboundary issues	1 (electric pricing)	2 (Shrimp and sole value chain assessments have incorporated the 25% reduction in electricity charges.)
12	Hectares in areas under improved management: • Hectares covered by fisheries management plans	20,000 hectares	While a management planning process is underway, we will count the hectares under improved management when the mgt. plan is formally adopted. This is unlikely to occur this workplan year.
13	# of technological innovations adopted: • Sole nets set at 8cm mesh size	1 mesh size regulation	0
16	# of vessels registered/licensed	475 fishers (# of unregistered boats estimated at 50)	0
17	Hectares under effective mgt • Sole 28.5-25 tot length	Baseline established (20,000 hectares)	0

Changes in Program Activities

The sole by catch assessment was scheduled to start in the 2nd. Quarter but started in the 3rd. Quarter. The sole stock assessment was also scheduled to start in the 2nd. Quarter but will now start early 4th Quarter (August and September 2010).

Priorities for Next Reporting Period

The main priorities for the next reporting period are the following:

- Election of the Sole Co-management Committee
- Validation of the Constitution and by-laws of the Co-management Committee structure
- Develop constitution and bylaws
- Vessel Registration.
- Drafting of the sole management plan.

2.3 Oysters

Background

The oyster fishery is somewhat unique as it is dominated by women gatherers. Women also dominate the processing and marketing of oysters. There is very little information on this fishery and official fisheries survey data do not even include it in the annual landing statistics. There is very little management of the growing areas other than a traditional seasonal closure during the rainy season as it is believed eating oysters during this season is harmful even though most oysters are shucked and boiled before sale. There have been no studies on whether there are public health risks from contamination of the harvesting areas (e.g. contamination from *E. coli* bacteria in the water where the oysters are grown). Local knowledge from the gatherers suggests that size is declining and abundance less, especially in the Banjul area. Meanwhile, there is limited knowledge about the biology of the local oyster in terms of growth rates and spawning periods (other than linked to the rainy season).

From a marketing perspective, there is no adequate physical market point for the oyster gatherers so almost all of it is sold in the open along the road leaving Banjul. In addition, there is one small area of the central market used as a point of sale. Neither the size nor the sanitation conditions of either of these locations is adequate. Currently, both the markets and the products are limited as compared, for instance, to the industry in the Saloum Delta.

A key strategy for the oyster fishery was team up with the local foundation called TRY, and build on what this organization is already doing with the oyster gatherers. Priority focal areas so far have been in nine communities within the protected Tanbi wetland, a RAMSAR Site. The membership of TRY Association has increased to nearly 500 members in 15 communities, and as a result of these developments, the activities of the project have also increased. The Project is taking a comprehensive approach that will be able to demonstrate an ecosystems-based approach

at a small scale and include ecological sustainability as well as improved income generating opportunities for women oyster harvesters.

Satellite image of the Tanbi wetland area with Banjul located in the upper right hand corner of the image.

The goal is to establish a management plan for the nine oyster harvesting communities within the Tanbi wetland complex as a pilot and then gradually expand to other harvesting areas in the country. The Tanbi wetlands complex was designated as a RAMSAR site on World Wetlands Day in 2007. The Government of The Gambia decided that the 6000 hectare mangrove system was important because of high biodiversity, and diverse and rare ecosystem with valuable marine resources. It is important to keep the ecosystem healthy, promote sustainable livelihoods and not use destructive means of harvesting. The 1st. Phase of the ICAM (Integrated Coastal Area Management project) made effort to allocate certain areas/tributaries to the 9 communities within Tanbi complex, closed certain areas and introduced oyster culture (the hanging method). Not all the communities are happy or satisfied with the allocations and there are on-going conflicts between communities that the Department of Parks and Wildlife Conservation has been trying to resolve with support provided by the project.

The legal basis to establish/designate special management areas is provided in the Fisheries Act 2007. The Tanbi Wetlands can be designated as a Special Management Area. The oyster harvesters have already been organized into a community based organization called TRY Association that can be responsible for the management of the fishery. Section 11 of the Act allows for the allocation of property rights and catch share allocation, so it can be said that the legal conditions for community-based management regime is in place.

Report Period Accomplishments

Validation Workshop for the PRA reports

The PRA reports were validated in the 3rd. Quarter (May 2010) at the TANGO office complex in Bakau. Five representative from each oyster harvesting community participated in the workshop. Other participants were officials from the Department of Fisheries, Department of Parks and Wildlife Conservation, TRY Association, WWF staffs and two facilitators from Senegal. The PRA reports were validated.

A follow-up meeting was convened at the Buffer Zone Sporting Complex Conference Hall in June 2010 to deliberate on issues that arose during the validation workshop but were not resolved. The issues centered on how to manage the mangroves; enactment of by-laws for sustainable exploitation of oysters; and the allocation of *bolongs* to different communities

Expansion of the Oyster Aquaculture Training Program

Mr. Dan Theisen of the University of Maryland, USA initiated the aquaculture training program during the 2nd. Quarter and was assisted by Mr. Babanding Kanyi, Ba-Nafaa staff in-charge of the Oyster Fishery Program. They were supported by staffs from Department of Fisheries and Department of Parks and Wildlife Conservation. The training involved the introduction of oyster harvesters to the design and construction of bamboo lattices, the punching and stringing of oyster shells and fastening them onto the lattices to culture oysters. The training was carried out in 6 oyster harvesting communities: Jeshwang, Abuko, FajiKunda, Lamin, Kerewan and Kubuneh.

In the 3rd, Quarter, the training was expanded to 9 communities namely: Wenco, Karmalloh, IboTown, Mandinary, Daranka, Kembujeh, Kartong, Mandinaba, and Bafuloto. Now, all the 15 oyster harvesting communities under TRY Association have benefitted from the training.

In July 2010, an activity was started to remove foulers (mainly ascidians and worms) found to have settled on the spat collectors (oyster shells).

Value Chain Assessment

A local consultant was contracted in December 2009 to conduct the Assessment but the consultant has yet to submit his report. Two local consultants were also contracted at the same time to conduct the assessments for shrimp and sole respectively, they have completed and submitted their final reports.

Oyster research program

A research project to examine the spawning, growth and mortality of the mangrove oyster was started in the 3rd. Quarter (June 2010) and is on-going in 3 communities: Jeashwang, Lamin and Kubuneh. Spat settlements and variations are checked and recorded on a monthly basis.

Oyster stock assessment.

A market survey in 3 markets: Jeshwang, Lamin and Kerewan was also started in the 3rd. Quarter and will run for 3 months (April,May and June). Samples were taken to the Department of Fisheries laboratory for weighing and counting of individuals (oysters) in each sample, and then recorded.

Training in improved processing and packaging of oysters and cockles

Two women from Mounde Island, Sine Saloum, Senegal came to The Gambia on 30 April 2010 as guests of TRY Association and offered training on improved processing and packaging technologies for a period of two weeks. The training was conducted in 12 communities and more than 300 members of TRY Association benefitted. The women can now process oysters and cockles and preserve them in glass jars in solution (mixture of water and vinegar) for up to 12 months.

Peace Corps Placement

There are two Peace Corp volunteers (Emily Nichols and Casey Donahue currently working on the oyster research activities. Emily is also assisting in the sole fishery program and played a key role in the mapping of hot spots and spawning grounds.

Water Quality Training Seminar

Photo of Workshop Participants

The Water Quality Training Seminar was held on Wednesday 23 June 2010 at the Atlantic Hotel in Banjul. Dr. Michael Rice, Professor of Fisheries at the University of Rhode Island was the resource person.

The Seminar was attended by 23 participants and one journalist. The participants were representatives of the national laboratories namely: the Fisheries Department, Department of Water Resources, Department of Public Health, and the Department of Livestock and Veterinary Services. The Seminar was also attended by representatives from the Food Standards Bureau, the Department of Parks and Wildlife Conservation, the Ministry of Fisheries, Water Resources and National Assembly Matters, and the Ministry of Forestry and Environment. The Ba-Nafaa staffs, two Peace Corps volunteers attached to the Ba-Nafaa project, and an undergraduate research student from Brown University were among the participants. Also in attendance was Dr. John Ryder, an expert in SPS (Sanitary and Phytosanitary) matters who was on a mission to The Gambia to assist the fishing industry to be compliant to E.U. requirements and standards. The National Nutrition Agency (NaNa) and the National Association of Artisanal Fisheries Operators (NAAFO) were invited but did not attend.

The Director of Fisheries Department Mr. Nfamara Dampha opened the Seminar. He said that the Seminar was important as well as useful and that lessons learnt and implemented will help in our drive to make the Gambian oyster an export product. He also said that he was happy that of all the national laboratories and key Ministries and Departments were participating and this accords the Seminar the importance it truly deserves. He expressed his satisfaction with the level of cooperation/collaboration between the Ba-Nafaa project and the Fisheries Department and reiterated the readiness/willingness of his Department and Ministry to continue working with the Ba-Nafaa project.

The outline of topics covered by Dr. Michael Rice during the Seminar was as follows:

- Biology and Life Cycle of Oysters.
- Methods of Oyster harvesting in different parts of the World.
- Methods and Techniques of Spat collection and Control of pests.
- Importance of Water Quality in terms of processing and marketing of Oysters.
- Shellfish Sanitation and Monitoring Plans.
- The importance of HACCP in Oyster Processing and Marketing.

Dr. Rice lectured on the methods and techniques in different parts of the world; how to control pests (ascidians and other foulers); the importance of water quality study and data collection and analyses; Shellfish sanitation and monitoring plans; and the importance of HACCP in oyster processing and marketing. 2 (two) supporting documents were given to the participants as reference documents. One document gives an overview of the protocols for shellfish sanitation in the state of Rhode Island and how water quality testing is conducted, and also provides guidance on how to classify water by coliform criteria. The other document is a review paper written by Dr. Rice outlining the shortcomings of coliform bacterial tests when used in tropical regions as an indicator for shellfish sanitation.

The Seminar generated lots of interesting discussions among participants. Some of the issues that emerged from the discussions were: the need for cooperation among the national laboratories; the laboratory of the Department of Water Resources to lead the water quality studies (fecal quality, temperature and salinity), and the laboratory of the Department of Livestock Services to lead the microbiological tests for the meat of oyster and cockles.

Dr. Rice was requested to work with the Project Manager and identify possible areas of study and action for Year 2 of the Ba-Nafaa Project. The Seminar participants expressed the wish that Dr. Rice should return to assess work being done and offer advice and guidance where needed. Finally, the participants thanked Dr. Rice for conducting the Seminar which was educative and very interesting.

Training in Entrepreneurship

Training in entrepreneurship has not yet started but a select group of TRY Association members went on a 2 day study tour to an ICAM (Integrated Coastal Area Management) project area to observe the functioning of a microcredit program operated by the beneficiaries themselves. The group has expressed interest to undergo similar training. The study tour was in the 3rd. Quarter.

Also, the Women's Bureau of the Ministry of Women Affairs will train 50 women oyster harvesters in Entrepreneur Development in July 2010. The training will last for 4 days.

Outputs

Expected Year 1 Outputs	Actual To Date
450 oyster harvesters participating in oyster management plan development and adoption	500 oyster harvesters (this is the entire membership of TRY Association) are participating in the process to develop an oyster management plan.
1 market/landing facility improved	Not yet – feasibility study included in grant agreement to TRY
15 individuals trained in resource monitoring	Not yet
Oyster co-management plan drafted and adopted by DoFish and stakeholders	Not yet
50 people trained in entrepreneurship, oyster aquaculture, other livelihood activities	500 (the entire membership of TRY Association) trained in oyster culture, 11 exposed to microcredit management. 300 members of TRY trained in improved packaging and processing.

Key Results

No.	Indicator	FY 10 Target	Actual (Oct09-June10
1	# of businesses and persons economically benefiting	50	37(oyster culture) and 12entreprenuership, 300 improved packaging

2	# receiving assistance packages	50	349 (see above)
3	# of people with improved access to loan capital	0	0
4	# of agencies or mgt bodies strengthened or created	One oyster management committee created	2(TRY Association strengthened, 1 mgt committee formed)
5	# of personnel trained in resources mgt	15	122-PRAs, 53 from co-management w/shop
6	Improvements on a governance scorecard	Yes	6 participants at expert group meeting – Oyster scorecard baseline: 24.
7	# of harvesters with use rights	450	0
8	# of individuals participating in regional meetings and/or exchanges	31 (Saloum exchange)	31
12	# hectares in areas under improved management: • Oyster mangrove area as community-based management zones	200 hectares	6000 hectares (Tanbi) (Note – original estimate of the Tanbi wetland was 200 hectares, but DPWM estimate is 6000.
13	Number of technological innovations adopted • Oysters, 7cm length	1	Not yet
17	Hectares under effective management • Oyster 7cm minimum size, increased density in no-take areas	200 hectares (biological baseline conducted this year to track change)	Not yet.

Changes in Program Activities

The participatory stock assessment exercise planned for the 1st Quarter will now commence in the 4th quarter. Also, the water quality study planned for the 2nd Quarter will commence in the 3rd. Quarter.

Priorities for Next Reporting Period

- Submission of Value Chain Assessment report
- Commence Water Quality Study
- Convene Consolidation workshop to reach agreement/consensus on outsatanding issues (by-laws, allocation of bolongs, sustainable exploitation) and determine the way forward towards preparation of a management plan
- Develop organizational and leadership capacities of TRY

2.4 Shrimp

Background

Artisanal shrimp fishermen operate in the estuary and tributaries of the Gambia River and target mainly the pink shrimp species, Penaeus notalis. There are over 225 shrimp fishermen that are widely dispersed at multiple landing sites and communities along the river. Two gear types are used and there seems to be some debate and conflicts between the stow net (stationary gear) and drift net (mobile gear) fishers. Some of the industrial trawl vessels also target this species as well. While there is a small domestic market, this shrimp has also an important export commodity. Recently, fishermen have been complaining about a lack of buyers for the shrimp they are catching and export processers have also stated that they are no longer exporting this species as the world market price is too low to make it profitable at this time.

The conclusion of the CECAF (Committee for Eastern Central Atlantic Fishery) Working Group is that pink shrimp are overexploited. However, given the current market situation it is unclear whether that is currently the case. This widespread distribution of fishers will also make management of this species a bit more difficult and complicated. Given the complications of addressing management and market issues surrounding this fishery, the Project is deferring any substantive work here until Year 2. However, Year 1 is being used to start compiling some preliminary information that can help to more clearly understand the current issues. The Project is carrying out a value chain assessment of the shrimp fishery. This will help in better understanding some of the current problems of export marketing and possible opportunities for alternative markets.

Report Period Accomplishments

Value Chain Assessment of the shrimp fishery has been conducted. The contract was awarded to a local consultant. The consultant submitted a 1st draft in January 2010 and a revised report (incorporating comments on the 1st draft) was submitted in February 2010. The report was approved in the 3rd Quarter and will be published in the 4th Quarter.

Outputs

Expected Year 1 Outputs	Actual To Date
Report on issues in the shrimp value chain	Final Draft report submitted for review.

Key Results

No.	Indicator	FY 10 Target	Actual (Oct09-March10
10	# of reports documenting transboundary issues	1	Draft but not yet final (see above)

Changes in Program Activities

No changes.

Priorities for Next Reporting Period

No activities are planned for the next period.

2.5 Sardinella

Background

Sardinella is another important fishery in The Gambia The main landing site is at Tanji and consists of two main species that range from Morocco to Guinea Bissau. These fish are important for local food consumption and in the West African regional export trade. CECAF has recommended that harvests should not exceed 200,000MT annually and effort should be reduced by 50 percent. The Gambia lands approximately 5,000MT annually so comprises only a small fraction of the total regional harvest. Management of this fishery will take regional cooperation well beyond the borders of The Gambia and Senegal. In The Gambia, sardinella is landed almost exclusively by the artisanal fisheries.

The *Ba Nafaa* Project is concentrating on several local management issues while supporting efforts of the sub-regional commission to harmonize policies and measures to reduce overall effort. In The Gambia, the local issues include a need to register and license artisanal fishing vessels, capture of juvenile fish, and the extensive use of wood in the smoking and drying process. Almost 50 percent of the bycatch is estimated to consist of juveniles or sub-adults. Wood used for smoking and drying the fish, which is then transported inland and to other countries, is reportedly becoming scare and more expensive.

The Project will support DoFish in the establishment of a participatory action research effort with fishermen to assess the bycatch issue. Registration of vessels will also be addressed for this fishery. Meetings will be held to capture local knowledge as to whether bycatch levels vary seasonally and spatially, and as to the species composition including possible bycatch of endangered and threatened species. As the participatory action research takes place, the Project will elicit ideas and recommendations from fishers as to how the bycatch problem could be reduced—what measures they think would be feasible and practical, and that they would be wiling to implement.

Report Period Accomplishments

The planned activities have been postponed until Year 2 to concentrate on the oyster and sole fisheries.

Outputs

Expected Year 1 Outputs	Actual To Date
Report on bycatch issues in the sardinella fishery	Postponed to Year 2
400 persons participating in outreach events on by-catch issues	Postponed to Year 2

Key Results

No.	Indicator	FY 10 Target	Actual

			(Oct09-March10
5	# of personnel trained in resources management	50 participants in bycatch survey	Postponed to Year 2

Changes in Program Activities

Sardinella activities postponed until next year due to the need to concentrate more fully on sole and oyster fisheries.

Priorities for Next Reporting Period

None

2.6 Export and Trade Promotion

Background

Fish export competitiveness

There are a number of issues that broadly fall under a heading of fish export competitiveness in The Gambia and that transcend all of the export fisheries including sole, shrimp, and a few others. One of these issues, which has been raised by the industrial fish processors, is the concern over the current pricing of shrimp on the world market—an issue that cannot be controlled locally. Since the price of fish commodities is determined on the world market, the only factor that can be locally controlled is the cost of capture, processing and marketing of these export products. That said, the high price of electricity—the highest cost factor in fish processing (for maintaining freezing facilities, etc.)—makes this difficult. Processers have been asking for reduced electricity rates to make them more internationally competitive. Electricity prices have recently been reduced and this has helped considerable. For more information on trade and exports see the section above: ***Coordinate with West Africa Trade Hub on exploring new markets for sole, shrimp or other possible export products***

Report Period Accomplishments

In this first year of the Project, a thorough assessment of the issues described above was to be conducted to document in more detail the relative costs in The Gambia *vis-a-vis* other exporters in the region. The goal was to prepare a policy brief that can clearly document the issues and provide a number of policy alternatives for consideration. The report on competitiveness issues will be initiated in the next reporting period. The report on electricity prices has been canceled for this year as electricity prices were reduced during this reporting period so no longer viewed as a priority for review. Other competitiveness issues are being captured in the sole and shrimp value chain studies.

Outputs

Expected Year 1 Outputs	Actual To Date
Report on competitiveness issues for fish export processers in The Gambia	Canceled as electricity prices were reduced during this reporting period so no longer viewed as a priority for review

Key Results

No.	Indicator	Target	Actual (Oct09-March10
10	# of reports documenting transboundary issues	1	canceled

Changes in Program Activities

Canceled as electricity prices were reduced during this reporting period so no longer viewed as a priority for review.

2.7 Biodiversity Conservation

Background

WWF (World Wide Fund) together with Department of Parks and Wildlife Management (DPWM) have developed strong monitoring methods for Marine Turtles and Dolphins.

The monitoring includes beach surveys and in water surveys. The maps below show the survey zoning of Gambian beaches and the in-water survey for dolphins. The marine turtle nest survey is planned from June to October 2010.

Report Period Accomplishments

In 2009, the monitoring system has been conducted by a team of 10 DPWM staff and volunteers, They were covering 50 km long and 10 m beach width (500 ha) and were surveying every Wednesday for 16 weeks.

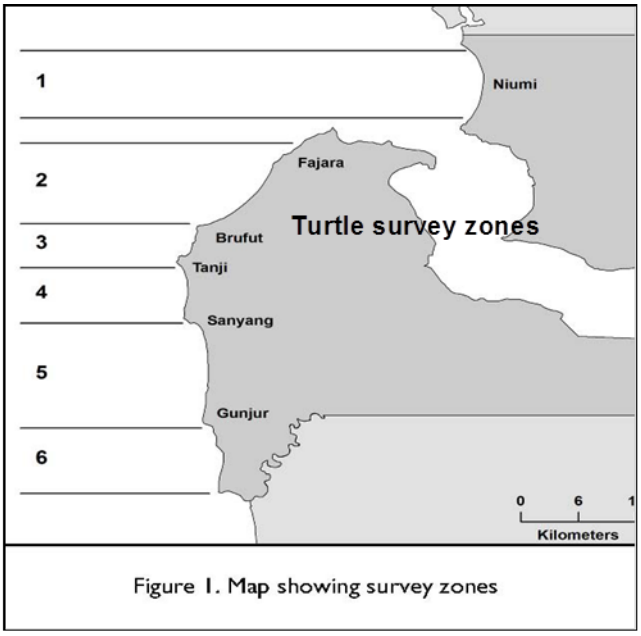
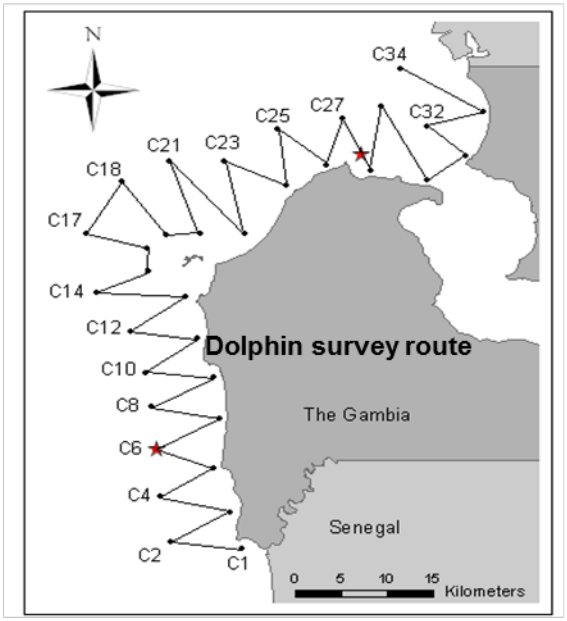
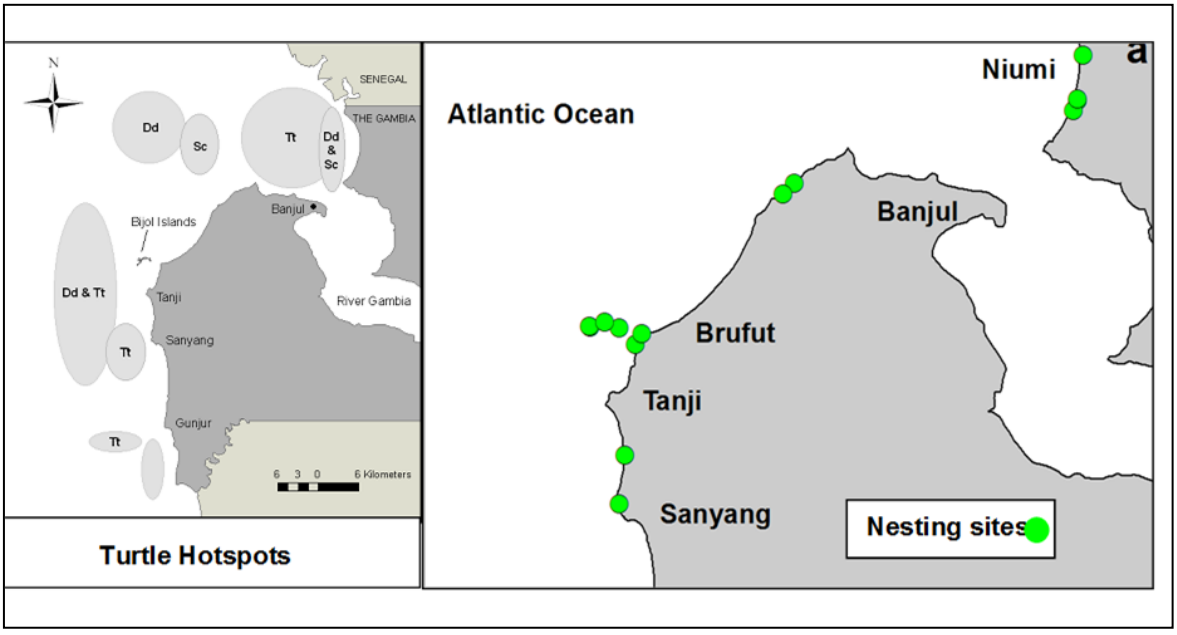


Figure 1. Map showing survey zones



The coast of The Gambia is a nesting ground for green turtles but at a very low rate; only 9 nests were found during the 2009 survey of the South Bank. The surveyors collected 3 strandings per week from June to the end of August along the South Bank beaches in 2009. The area between Burfut and Sanyang has the highest rate of stranding presence.



Moreover, the team found that many nests are poached by either communities or lodges and decided to save 3 out of 9 as shown in the photos below.

The dolphin survey has not been resumed due to the lack of boats; the procurement of boats is taking longer than expected.

Outputs

- Report on local knowledge on sole hotspots is available
- Map of Dolphin hotspots is available.
- Report and Maps of Turtles nesting and stranding sites
- 2009 Turtle Survey forms
- 500 ha coast surveyed during 16 weeks
- Map of Hotspots and Sole spawning grounds available.

Key Results

- None anticipated this year

Changes in Program Activities

Dolphin survey not yet started due to lack of boats for monitoring.

Priorities for Next Reporting Period

- Sensitization for turtle nests conservation
- Campaign for 2010 turtle monitoring
- Resume Dolphin monitoring
- Continue the hotspots mapping with communities

2.8 Capacity Building, Communications, Outreach and Coordination

Background

Building a critical mass of mid-level professionals with key government institutions is an essential task for building sustainability to implement fisheries and MPA plans.

Report Period Accomplishments

The WWF Country Program Director Mr. Ibrahima Mat Dia and Mr. Famara Drammeh of the National Environment Agency attended The Climate Change Adaptation Training Course (**The *Institute in Coastal Management***) at URI in May-June 2010. In addition, another strategy of the *Ba Nafaa* Project is to provide degree training for mid-career staff within Department of Fisheries within West Africa regional centers of higher education. The Department of Fisheries has been requested to apply for university placement for 2 staffs to be trained at BSc level.

Coordination with Wula Nafaa.

Two women from Mounde Island visited The Gambia in the 3rd. Quarter and offered training in improved processing and packaging of oysters and cockles in 12 communities.

Coordination with regional fisheries organizations

The project Manager participated in the Regional Coastal and Marine Forum that was held in Nouakchott, Mauritania from 27 June to 1 July 2010. The theme of the Forum was "Making Biodiversity our Haven in a Changing World". The forum sought to promote dialogue among West African stakeholders, harmonize approaches, ensure synergy consistency and development, formulate recommendations for decision-makers, as well as share and disseminate lessons learnt. Ministers of Education and Environment and Parliamentarians also participated in the Forum.

Communications and outreach

The Project produced several outreach and communications products. This included a Project brief, prepared in English.

Coordination with the US Embassy: HAACP Training Workshop

The 2 day training workshop was sponsored by the Embassy of the United States of America and was. held at Kairaba Beach Hotel on 5 and 6 May 2010. The Project Manager of Ba-Nafaa assisted in organizing the workshop. The workshop was officially opened by the US Ambassador Barry L Wells. In his opening statement, the Ambassador said that the United States will continue to push for more trade ties between the US and The Gambia and will continue to push for more trade ties between the two countries, noting that the US has launched a series of training programs to that effect. The Ambassador went further to say that the two-day training workshop on Hazard Analysis and Critical Control Points (HACCP) was intended to provide the participants with an in-depth working and practical knowledge of food safety management systems, based on the Codex HACCP principles, and ancillary knowledge and skills required by all stakeholders: seafood producers and processors as well as food sector workers. The workshop was also meant to provide participants with an up-to-date general knowledge of HACCP, and its relationship with national and international standards, as well as trade and legislative requirements, particularly for exporters of fish and seafood products to the United States.

US Ambassador Barry Wells

Ambassador Wells also pointed out that the fisheries sector is one with great potential for growth in terms of economic development and international trade and there is great potential market for Gambian food products under the Africa Growth and Opportunity Act (AGOA). The Ambassador expressed the hope that more Gambian fishermen will take advantage of the opportunities to showcase their products in the United States but noted that the US is aware of the difficulties The Gambia's fisheries sector faces in terms of capacity and the rising energy costs.

Speaking earlier, the Director of Fisheries, Famara Dampha, hailed the US Embassy's efforts to improve trade links between The Gambia and the United States of America and said that the training workshop on HACCP was very important to the country, and that it will mark an important and necessary step towards improved trade relations between the two countries.

This training sessions covered topics, such as the origins and purpose of HACCP; HACCP principles; the benefits and perceived barriers to implement HACCP; Good Manufacturing Practices; Sanitary and Phytosanitary Standards, Legislative requirements, HACCP and international trade; Technical Barriers to Trade; Codex Alimentarius Commission, WTO, FAO and other food regulating organizations; and other important issues.

Outputs

Expected Year 1 Outputs	Actual To Date
2 persons from DoFish trained regionally at Diploma or Bachelors level	None as yet but scheduled for 4th Quarter
5 persons trained internationally in fisheries and coastal management	2 persons trained in Climate Change Adaptation in 3rd. Quarter
5 persons sharing experience with related fisheries projects through annual coordination workshop event	None as yet
2 outreach documents produced	A two page project brief was prepared and is being distributed at key local and regional and international events

Key Results

No.	Indicator	FY 10 Target	Actual (Oct09-June10
5	# of personnel trained in resources mgt	6	2 climate change inst
8	# on individuals participating in regional meetings and/or exchanges	5	2 (USAID-Dakar) Mat Dia and Ousman Drammeh. 1 - PMRC meeting
9	# of regional workshops/meetings on policy reform	1	0

Changes in Program Activities

None

Priorities for Next Reporting Period

None

3. Project Management

3.1 Challenges, Constraints, and Opportunities

The Gambia offers unique opportunities for making significant progress on sustainable fisheries management. This in part is due to the small size of the country, the short coastline of about 70 km in length. There are only 7 artisanal small scale fish landing sites referred to as Community Fisheries Centres (CFCs) and about than 500 fishing boats. The Community Fisheries Centres have concentrated fishing and related activities within established areas and management committees were established to manage the CFCs. The members of the management committees are representatives of the different artisanal operators, a representative of the Village Development Committee, and the head of the village as the Chairman.

Project staff do not have to travel far to reach all fishing communities and daily interactions with all stakeholders are possible. Project s ideas can be discussed and conflicts can be resolved quickly. Achieving sustainable fisheries management under a co-management arrangement (the goal of the Ba-Nafaa Project) is a real possibility. This possibility is enhanced by fisheries legislation of The Gambia, the Fisheries Act 2007, which provides the legal basis for co-management of artisanal fisheries (Sections 11, 15 and 16 of the Fisheries Act). This legislation provides an important enabling condition not present in other countries of West Africa.

However, there are several constraints that can affect the smooth implementation of project activities. The constraints include the fact that the majority of the fishers are Senegalese nationals some of whom still consider themselves as foreigners and are reluctant to assume duties and responsibilities and take part in decision making. This is despite of the fact that they spend more than 10 months of each year in The Gambia, their children are Gambian citizens by birth, and some have married Gambian wives. Another major constraint is that the Government agencies, being supported by the project, are lacking the requisite resources (human, financial and technical) to meet their mandates, and are relying heavily on the project to get things done.

The challenges include the following: raising awareness of fisher folks on responsible and sustainable fisheries and the negative impacts of IUU fishing, educating fisher folk on the fisheries legislation and their powers under the law, and pushing forward the process to develop fisheries management plans with the full participation of all stakeholders.

3.2 Environmental Monitoring and Compliance

No activities were implemented during this reporting period that required environmental screening or activities where mitigations measures were required.

3.3 Branding Strategy Implementation

The *Ba Nafaa* Project provides information through many existing channels. This includes through presentations at meetings, conferences, outreach sessions and other forums as well as through print media—e.g., peer-reviewed articles in professional journals, locally produced

Information, Education and Communication (IEC) materials, pamphlets, brochures, policy briefs, guides, and PowerPoint presentations. The main target audiences include local communities, local government agencies, national policymakers, grassroots NGOs, and other donors. Acknowledgement is always given to the generous support of the American people through USAID in all Project communications and materials. Also recognized are partnerships and support from local government ministries, agencies and departments who participate in various activities of the Project.

Communication items produced during the reporting period that are affected by USAID marking/banding regulations (ADS 320/AAPD 05-11) are provided in the following Table.

Item	***Type of USAID marking***	***Marking Code***	***Locations affected/ Explanation for any 'U'***
Press materials to announce Project progress and success stories	USAID logo (co-branded as appropriate)	M	Primarily a Gambian audience
Project brief / fact sheet	USAID logo (co-branded as appropriate)	M	Primarily a Gambian audience
PowerPoint presentations at meetings, workshops and trainings	USAID logo (co-branded as appropriate)	M	Primarily a Gambian audience
Project Office/room within WWF/Gambia office in Banjul	Project sign in English and local dialect name as well *(Ba Nafaa*) but no USAID identity used	M	Primarily a Gambian audience
Project vehicles, office furnishings and computer equipment purchased for project administration by WWF	No USAID identity used	U	Standard exclusions under USAID marking guidelines/policies

Marking Codes: M = Marked, U=Unmarked, PE = Presumptive Exception, W=Waiver

Specific reports produced during this reporting period include:

- PRA reports
- Training and workshop reports
- Value Chain Assessment Report on the Sole Fishery (Draft).
- Value Chain Assessment Report on the Shrimp Fishery (Draft).

The Project has received a good deal of media coverage via TV and in printed media.

3.4 TraiNet Data on Trainings Conducted during the Reporting Period

The Ba Nafaa Project Office compiles information on all training events as required by USAID, This information is submitted to CRC where the data is entered into the TraiNet electronic reporting system. A summary of trainings conducted is provided in the following table.

Training program	*Location*	*Start date*	*End date*	*Participants*			*Estimated Cost*
				Male	**Fem**	**Total**	*US $*
Oct 09- March 10							
Study Tour to Sine Saloum	Senegal	12/16/2009	12/18/2009	30	1	31	3,507
Co-management Training on Sole Fishery	The Gambia	1/25/2010	01/26/2010	37	3	40	2,188
Co-management Training on the Oyster Fishery	The Gambia	02/01/2010	02/02/2010	2	51	53	2,373
Co management Workshop	The Gambia	03/23/2010	03/24/2010	51	2	53	2,373
Training on Entrepreneurship	Gambia	19/3/2010	21/3/2010	0	12	12	600
Total				***120***	***69***	***189***	***$11,041***
April 10-July 10							
Oyster Pra Validation Workshop	Gambia	17/4/2010	17/4/2010	13	51	64	100
Training on Improved Processing & Packaging	Gambia	30/4/2010	12/4/2010	0	300	300	750
Oyster Pra Validation Workshop	Gambia	28/5/2010	29/5/2010	7	51	58	200
Coastal Adaptation to Climate Change	US	4/6/2010	25/6/2010	2		2	26,000
Cayar Study Tour	Senegal	13/6/2010	18/6/2010	11	4	15	4,500
Oyster Aquaculture Training	Gambia	17/6/2010-	29/6/2010	1	36	37	750
Water Quality Assessment Training Workshop	Gambia	23/6/2010	23/6/2010	18	5	23	100
Total				***52***	***45***	***499***	***$32,400***

NOTES: 1). The 2nd. PRA Validation Workshop held on 28 - 29 May 2010 was sponsored by the ICAM Project as match/leveraged funds.
2). The Training on Entrepreneurship held from 19 - 21 March 2010 was also sponsored by the ICAM Project as match/leveraged funds.

3.5 Estimated Quarterly Financial Status

The following table shows a pipeline analysis of actual and anticipated expenditures through December 2010 in relation to obligations through December 2010.

AMOUNT SUB-OBLIGATED (total funds received from USAID to date)			1,000,000
TOTAL FEDERAL OUTLAYS AS OF LAST SF 425/VOUCHER Period covered in last SF425 (actual expenditures)	July-Sept 2010		685,954
Actual expenditures (Oct & Nov)	Oct + Nov 2010	138,790	
Estimated Expenditures	Dec-10	92,000	
TOTAL EXPENDITURES (Amt on SF 425 + Recent Expenditure)		916,744	
BALANCE OF SUB-OBLIGATED FUNDS REMAINING		83,256	

Funding request through September 30, 2011: $579,705

Add on Funding request for vulnerability assessnment

3.6 Leveraged Funding

The following table represents estimated funds the project has been able to leverage from non USAID or partner match sources.

Fiscal Year	Leveraging Partner	Donor	Activity	Leveraged Funds
2010	US Peace Corps	US Government	Two Peace Corps Volunteers assigned to the project and working on Sole and oyster fishery activities.	$82,000 (estimated total cost per volunteer X2)
2010	Univ. of Maryland	Professional volunteer	Oyster aquaculture training	$2,000
2010	WWF	ICAM	Training on Entrepreneurship	$600

Fiscal Year	Leveraging Partner	Donor	Activity	Leveraged Funds
		Project		
2010	WWF	ICAM Project	Oyster PRA Validation Workshop	$200
			Total	**$84,800**

Appendix A. Performance Management Report

The goal of performance management and evaluation is to encourage adaptive management and learning within the Project and to report results to USAID/West Africa. This requires collecting timely information using indicators selected to provide meaningful information on progress towards stated objectives. In Year 1, the Project developed a Performance Management Plan (PMP), a summary of which is presented below. The PMP includes key results, refined performance targets disaggregated by year, specific monitoring parameters, and source(s) of data for each indicator. Time-bound targets were refined through the work planning process in consultation with local partners and beneficiaries.

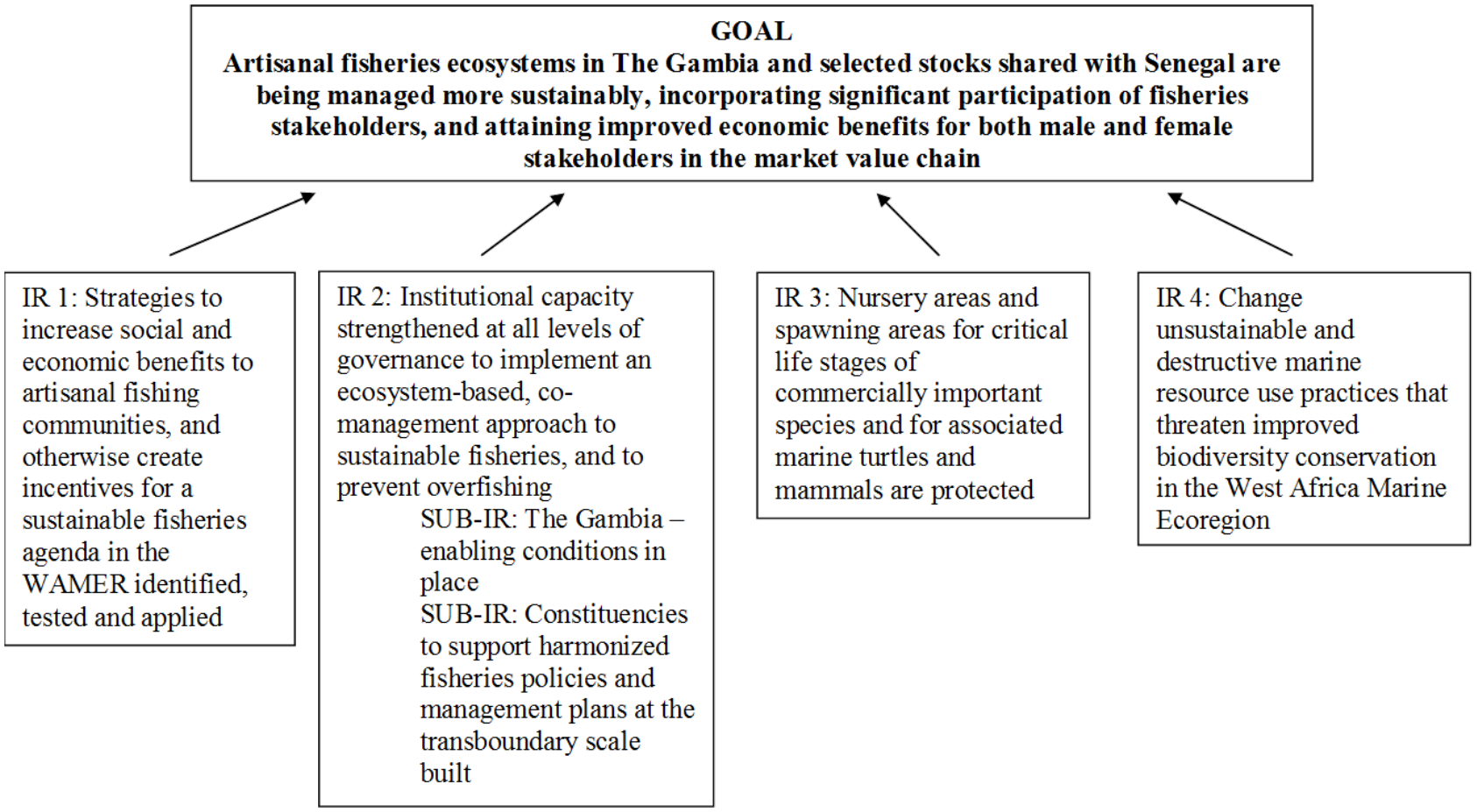
The semi-annual performance monitoring report documents progress on achieving results. The report includes:

- A comparison of actual accomplishments against the targets established for each indicator for the reporting period and cumulatively for the project (in tables below);
- An explanation of quantifiable outputs generated by Project activities and reasons why goals were or were not met, provided in the text narrative prior to this appendix;.

This data is supported by evidence collected and filed by the Project Manager, or his designee, who serves as the in-country PMP coordinator. The CRC provides quality control measures to ensure the PMP system is properly implemented.

Results Framework

The Results Framework below is organized by Project Goal and Intermediate Result (IR). Each IR has one or more indicators and LoP targets that are shown in the table on the following pages. Indicators and targets are reviewed and adjusted annually.



Life-of-Project (LOP) Targets per Indicator

No.	Indicator	LOP Targets
IR 1		
1	Number of businesses economically benefiting	50 businesses (gender disaggregated)
2	No persons receiving economic assistance packages	200 persons
3	Number of people with improved access to loan capital	100 people w/ access to capital (gender disaggregated)
IR 2		
4	Number of govt. agencies or management bodies strengthened or created	4 committees (Gunjur, Burfurt, Sanyang,Tanji),
5	Number of government personnel, community leaders and private sector stakeholders trained in resources mgt	200 people trained (gender disaggregated)
6	Improvements on a governance scorecard covering, goals, constituencies, commitment and capacity dimensions, including measures that legislation and regulations are being implemented and complied with, and budgetary investments by government in fisheries management	Qualitative increases on score card criteria for Gambia EB-fisheries mgt
7	Number of fishermen and women with collective or individual use rights (collective quotas or territorial use rights, saleable licenses)	600 people w/ use rights (gender disaggregated)
8	Number of stakeholders participating in regional meetings and/or exchange visits	100 persons (gender disaggregated)
9	Number of workshops/meetings on policy reform for the artisanal fisheries sector held between Senegal and the Gambia	3 events
10	Number of reports documenting transboundary issues and alternative solutions	4 reports
11	Number of policy changes made by national governments to harmonize policies	3 national policy changes

No.	Indicator	LOP Targets
IR 3 & 4		
12	Hectares in areas of biological significance under improved management: • Hectares covered by the fisheries management plan defined as the range of fishing fleets targeting these species	FMP Areas: • Sole - (20,000 hct) • Sardinella – same as for sole • Shrimp – Gambia estuary (10,000 hct)
12	Hectares in areas of biological significance under improved management: • Oyster fishery estuarine and mangrove areas designated and allocated as community managed zones, including no-take areas	Community managed oyster zones • Tanbi wetlands 200 hct • Numi 300 hct
12	Hectares in areas of biological significance under improved management: • Area in hectares of any officially designated MPA (Marine Park or fishery no-take reserve)	• Numi National Park MPA – 30 sq. km • Numi no-take area 3X10 km -30sq km
IR 4		
13	Number of technological innovations (gear or fisher behaviors) developed and/or effort restrictions that reduces bycatch.	At least three innovations and/or 3 effort restrictions (e.g. min. mesh size, size limit)
14	Number of fishing units that adopt by-catch reduction devices	20% of vessels for shrimp and sardinella fisheries
15	Number of processers that reduce fuel wood consumption	At least two reduce wood consumption by at least 20%
16	Number of vessels registered/licensed	100 coastal vessels targeting sardinella and sole
GOAL		
17	Hectares under effective mgt (Key biological reference points in the FMPs for sardinella, shrimp, sole, oyster)	A subset of LOP Targets for previous indicator No targets set but progress towards BRPs or MRPs will be tracked.

Results to Date

The following table shows the indicators targets and results to date for the BaNafaa Project.

N0	Indicator	FY 10 Target	FY 10 Results to Date (Sept 09 – June10)	LOP Target	Cumulative Results to Date
1	Number of businesses economically benefiting	50	300 oyster harvesters for improved packaging and 37 in aquaculture and 12 entrepreneur.	125	349
2	No persons receiving econ. assistance packages (grants, training, etc.)	50	500 (see above), 99 oyster harvesters	220	349
3	Number of people with improved access to loan capital	0	0	115	0
4	Number of govt. agencies or mgt. bodies strengthened or created	3	Sole – 7 informal at CFCs, 1 central committee were formed for sole mgt 1 informal oyster committee), 3 strengthened (TRY, NAAFO,	8	9 were formed, 8 informally created, 1 formally, 3 strengthened

N0	Indicator	FY 10 Target	FY 10 Results to Date (Sept 09 – June10)	LOP Target	Cumulative Results to Date
			DoFish)		
5	Number of stakeholders trained in resources mgt	60	122 Oyster PRA validation, 146 co-mgt. workshops,18 stock assess, 23 water quality, 2 climate change	200	311
6	Improvements on a governance scorecard	Oysters improving	Oyster baseline score = 24	improving	Oyster baseline = 24
7	Number of fishermen w/ use rights (collective quotas/territorial use rights, saleable license)	450	0	600	0
8	Number participating in regional meetings and/or exchange visits	55	1 PMRC meeting, 15 participated in Cayar study, 31 – Saloum tour, 2 Mat and Ousman to USAID regional meeting	130	49
9	Number of workshops/meetings on policy reform between Senegal and The Gambia	1	0	6	0
10	Number of reports documenting transboundary issues and solutions	1	2 (Drafts) Sole and Shrimp value chains	4	4

N0	Indicator	FY 10 Target	FY 10 Results to Date (Sept 09 – June10)	LOP Target	Cumulative Results to Date
11	Number of policy changes made by national govts to harmonize policies	0	0	3	0
12	Hectares of biol significance under improved mgt: • Fisheries mgt plan	20,000 (sole)	0	30,000	0
12	Hectares of biol significance under improved mgt: • Oyster CB-mgt zones	200	6,000 hectares (Tanbi)	500	6,000
12	Hectares of biol significance under improved mgt: • MPAs or fishery no-take reserves	0	0	6,000	0
13	Number of tech innovations and/or effort restrictions that reduces bycatch.	0	0	3	0
14	Number of fishing units that adopt bycatch reduction technologies	0	0	20%	0
15	Number of processers that reduce fuel wood consumption	0	0	2	0
16	Number of vessels registered/licensed	50	0	100	0
17	Hectares under effective mgt (progress towards BRPs) for sole	No target	0	No target but tracked	0
17	Hectares under effective mgt for oyster	No target	0	No target but tracked	0
17	Hectares under effective mgt for sardinella	No target	0	No target but tracked	0
17	Hectares under effective mgt for shrimp	No target	0	No target but tracked	0