Gambia-Senegal Sustainable Fisheries Project

USAID/BaNafaa

Year 3: Semi-Annual Report

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A partnership of:

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Coastal Resources Center, University of Rhode Island
World Wide Fund for Nature, West Africa Marine Program Office
Department of Fisheries
Ministry of Fisheries, Water Resources and National Assembly Matters, The Gambia

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1. Introduction

The USAID/ BaNafaa 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 a regional implementing partner. At the end of Year 2, The University of Rhode Island established an office presence in The Gambia and will work directly with local implementing partners, including TRY, NAAFO/GAMFIDA/NASCOM, TAGFC and the Water Resources Laboratory on some activities. At the end of Year 2, WASH and Climate Change funding was awarded in addition to previous fisheries activities under the biodiversity earmark. URI is working directly with local partners TARUD and GAMWORKS to implement WASH activities beginning in Year 3. Implementation of a bilateral Climate Change Vulnerability Assessment is being conducted by WWF in Year 3. 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. The Gambia - Senegal Sustainable Fisheries Project contributes directly to the achievement of the USAID West Africa Regional Office's Environment & Climate Change Response (ROECCR) Results Framework through contributions to multiple Intermediate Results.

This quarterly report describes progress made in the first six months of Year 3 (October 1 – March 31, 2012)

1.1 Background

In West Africa, an estimated 1.5 million tons of fish are harvested annually from the region's waters, with a gross retail value of US$1.5 billion. In The Gambia and Senegal artisanal fisheries make up a majority of the fisheries landings and contribute significantly to income generation and local food security for coastal communities and for many communities inland where fish are traded. Some 200,000 people in the Gambia and 600,000 in Senegal are directly or indirectly employed in the fishing sector. Seafood products are a leading export of the region and generate as much as 20% of the gross value of exports. While the majority of seafood exports are destined for European Union (EU) markets, a growing volume of trade goes to the U.S. and other countries in the region.

Fish provides the main source of animal protein for the average rural family in the sub-region, where annual fish consumption can be as much as 25kg per capita. In many rural areas, fishing serves as a "social safety net" when farming turns unproductive due to depleted soil, drought, disease, or other factors.

In addition to direct socioeconomic benefits derived from fishing, a well-managed sector can benefit other aspects of the region's economy and quality-of-life. This includes a growing tourism sector and a number of globally and regionally significant parks and natural heritage

areas. With annual tourist arrivals surpassing 120,000 in The Gambia and 400,000 in Senegal, a growing number of tourists are taking advantage of the countries' ecologically significant reserves, parks, and protected areas—most of which have direct links to the fate of well-managed fisheries. These include but are not limited to the Sine-Saloum Delta Biosphere Reserve in Senegal and in The Gambia the Niumi National Park, the Baobolon Wetland Reserve, and the Tanbi Wetland Complex—all are designated Ramsar sites and contain globally significant wetlands.

Senegal and The Gambia are centrally located within the West African Marine Ecoregion (WAMER) that spans 3,500km of coast in western Africa (Mauritania, Senegal, The Gambia, Cape Verde, Guinea Bissau, and Guinea). Its most striking feature is the powerful coastal upwelling of cold water that create a tremendously productive food chain supporting incredible biodiversity in one of the most diverse and economically important fishing zones in the world. Over 1,000 species of fish have been identified, along with several species of cetaceans including dolphins and whales, and five species of endangered marine turtles. This immense productivity is further enhanced by several major river/estuary/delta complexes that provide additional influx of nutrients and sediments to the marine realm, adding to its biological productivity. The estuarine wetlands are globally significant breeding and over-wintering grounds for numerous migratory birds.

The ecoregion is also known as the Canary Current Large Marine Ecosystem (CCLME). Fish that spawn in northern nurseries seasonally migrate southwards (as do the fishermen) and provide food for human fishing communities along the way. In addition, recent satellite tracking has confirmed that green turtles lay eggs along the remote beaches of Guinea Bissau and travel northwards through Senegalese and Gambian waters to graze in the rich sea grasses of Mauritania. In short, the unique combination of climate and upwelling supports species and habitats that represent critical resources locally, nationally, regionally, and globally. Areas of international, regional and local significance within the WAMER are shown in Figure 1. The stretch from the Saloum Delta in Senegal, The Gambia River and the entire coastline of the Gambia, as well as the Casamance river system is one contiguous area that has regional biodiversity significance.

High levels of fishing effort, however, puts unsustainable pressures on limited fish stocks—only further exacerbated by recent improvements in fishing gear that increase fishing efficiency. As more boats search for fewer and fewer fish, the use of destructive, habitat-destroying fishing techniques such as bottom trawling, and beach seining have increased dramatically. Increased fishing has also led to increased capture of endangered marine turtles, juvenile fish, and expansion of the trade in shark and ray fins.

To address these threats, more integrated management approaches are needed at the local and regional scale, including approaches that move toward more sustainable fisheries utilization with less impact on the rich biodiversity of this region. Reducing overfishing through more sustainable harvesting practices will result in a healthier marine ecosystem, including higher biomass of standing stocks and more balanced species assemblages. In addition, promoting more sustainable use practices will help address the wasteful problem of incidental bycatch and

capture of endangered species and will increase adaptive capacity of communities and fisheries to climate change.

Climate change is predicted to seriously modify coastal, marine and estuarine ecosystems and their human uses with social, economic and ecological consequences. In the Saloum, Sangomar Point has completely disappeared and the advancing sea is causing the progressive disappearance of mangroves in the Saloum estuary. Infrastructure in both the Saloum and in The Gambia are threatened by coastal erosion, menacing fisheries centers, and landing and processing sites. By one estimate, climate change will cause a reduction of fish catch in Senegal by 2% of GDP beginning in 2020.

It is therefore important to study the vulnerability of these ecosystems and productive human activities to identify appropriate adaptation measures that support sustainable socio-economic development and reduce the vulnerability of local populations. While the natural resources are trans boundary, resource management in The Gambia and Senegal is strictly national. An ecosystem-based approach to fisheries resource management and adaptation of fisheries to climate change needs to consider both countries and ensure bilateral cooperation and planning.

In short, at stake in a successful ecosystem-based approach to fisheries management is the ability of millions of people to sustain a resource-dependent existence while at the same time protect the overall ecological integrity and biodiversity of the region.

1.2 The Gambia Fishery Context

There are two types of fisheries in The Gambia—artisanal and industrial. The total fish landed from both the artisanal and industrial sub-sectors were estimated at nearly 40,000 MT in 2006 and 47,000 MT in 2007. In 2006, the artisanal fishery contributed approximately 93 %.

In the mid 1960s The Gambia witnessed the transformation of the artisanal fishery from paddled canoes with simple fishing techniques to one with modern fish-capturing technologies and larger canoes with outboard engines, which resulted in an increase in fish landings. Decades of growth in the artisanal fishery combined with the activities of the industrial fishery has caused high levels of exploitation, especially of high-value fish, crustaceans and cephalopods. Production in the artisanal fishery has increased from 10,000MT in 1985 to approximately 40,000MT in 2007, while industrial production has been declining. Reports of dwindling catch per unit of effort indicate that high-valued demersal species are under threat from high levels of exploitation. Regular assessments carried out by the Demersal Working Group of the FAO's Committee for Eastern Central Africa Fisheries (CECAF) also indicate that the major demersal fish stocks are either fully or overexploited. Pelagic stocks are also considered to be fully or overexploited regionally, but there are some indications that The Gambian stocks may not be fully exploited.

In 2007, a total of 32 industrial fishing vessels operated with a license in Gambian waters—15 shrimp trawlers and 17 fish\cephalopod trawlers. All industrial vessels operating in Gambian waters are foreign-owned and foreign fishermen dominate. These vessels land their catches in foreign ports where the fish is processed, packaged and labeled as products originating from those foreign ports. The absence of a deep water port is the reason that the industrial fleet does

not land their catches in The Gambia as is required by fisheries licensing regulations. A deep water landing dock in Banjul is now under construction. This construction project was developed and supported by the Gambia Artisanal Fisheries Development Project supported by the African Development Bank and BADEA (Arab Bank for Economic Development).

The industrial fisheries sub-sector also includes industrial seafood processing plants that purchase fish from the artisanal fishery and provide permanent and part-time employment to between 1,500 to 2,000 people (mainly women). Presently, there are seven processing plants, three of which export to the EU. Two plants are temporarily closed due to lack of material (fish) and high operating costs. Lack of adequate fish for processing is an annual problem, especially when most Senegalese fishers return to Senegal for Ramadan and Tabaski (Islamic holidays). It is expected that the new deep water port in Banjul will reduce the problem of lack of material and the need to operate below capacity. Processing factories also suffer from unreliable provision and high prices for electricity—electricity represents the greatest cost for processing plants with The Gambia having one of the highest kilowatt hour cost of electricity in Africa. Another problem is the high cost of financing.

The artisanal sector, which is the major supplier of both food fish for the Gambian populace and raw material fish for commercial fish processing plants, provides direct employment to 1,410 head fishermen and 4,694 assistant fishermen. Considering fish buyers, processors, boat builders, fuelwood collectors, and other ancillary activities it is estimated that over 200,000 people are directly or indirectly dependent on artisanal fisheries for their livelihoods. Of the 1,410 head fishermen operating in the artisanal fisheries, 805 are Gambian nationals and 605 foreign. In the coastal area, however, foreign nationals—mainly Senegalese—form the majority with 249 head fishermen compared to 167 Gambians. The number of canoes and fishermen operating in artisanal fisheries steadily increased from 1983 to 1997, but thereafter and until 2006 declined. The artisanal subsector is highly diverse, incorporating marine, estuarine and freshwater fishing operations. The majority of the communities located along the Atlantic coastline and close to the River Gambia and tributaries engage in some form of artisanal fishing activity. The more prominent fishing communities are located along the Atlantic coast and include the coastal villages of Kartong, Brufut, Tanji, Sanyang, Gunjur and Bakau, and the riverbank villages of Albreda, Bintang, Kemoto and Tendaba.

Artisanal fishing crafts are predominantly dug-out canoes along the river, and planked open hull vessels (*pirogues*) of the Senegalese type along the marine coast. Most fishermen (74 %) own their canoes followed by joint ownership (14%). The Frame Survey revealed that 94% of the fishermen use canoes for fishing and the most common type of canoe used is dug-out (50%) followed by planked-dugout (37%). There are also 1,082 un-motorized and 625 motorized canoes.

Pelagics are now the dominant catch of the artisanal fishery. Gear used in the pelagic fishery includes surround gillnets and purse seine nets and the main species that are caught are shads (*Bonga*), sardinella, anchovies, mackerel, barracuda and jacks. Demersal species are caught by artisanal fishermen using set/bottom gillnets, drift nets, traps, and hook and line. Various species of croaksers, solefish, catfish, cuttlefish, threadfins, grunts and groupers are captured with these

fishing gears. Stow nets and drift nets (*fele-fele*) are especially used by artisanal fishermen for catching shrimps in the estuary and tributaries.

With regard to fish market outlets, about 60 percent of fishermen sell fish catches through *Banabana* (fish dealers) and 31 percent sell directly to consumers. The rest sell through bidding. The artisanal fish catch is either sold among the local communities for processing (drying and smoking) or is transported and marketed in major towns and villages in the interior. Post harvest losses are high due to a combination of oversupply, lack of preservation and lack of market. The processed fishery products are transported and sold in inland markets, and some are exported to neighboring countries. A proportion of the artisanal fish catch of high value (shrimps, soles, sea breams, lobsters) are purchased by industrial seafood processing companies for export abroad. The Ministry of Fisheries and communities at the artisanal fisheries landing sites have indicated that Water and Sanitation are development priorities for the artisanal fisheries sector due to the lack of sanitary facilities and potable water sources at most landing sites. This situation poses a public health threat for users of the site and surrounding communities as well as a threat to the quality of fisheries products handled and processed at the sites.

The Gambia's fisheries sector operates under the authority and responsibility of the Minister of Fisheries, Water Resources, and National Assembly Matters through the Department of Fisheries (DoFish). The policy, legal and management framework for fisheries in The Gambia is provided by the 2007 Fisheries Act and the 2008 Fisheries Regulations. A draft Fisheries Management Plan for shrimp, sardinella and sole fish was prepared in 2009. The Fisheries Act mandates a Fishery Advisory Committee and Community Fisheries Centers as the institutional structure for inclusive oversight of the sector and also allows for decentralized fisheries co-management. The policy objectives of the fisheries sector as articulated in policy documents include:

- Rational and long-term utilization of the marine and inland fisheries resources
- Improving nutritional standards of the population
- Increasing employment opportunities in the sector
- Increasing foreign exchange earnings
- Increasing and expanding the participation of Gambians in the fisheries sector
- Improving the institutional capacity and legal framework for the management of the fisheries sector

The policy objectives of the fisheries sector are linked to key national development objectives that include: increased food self-sufficiency and security; a healthy population and enhanced employment opportunities for nationals; increased revenue generation and foreign exchange earnings; and the attainment of national social and economic development. They are designed to support key national development objectives as outlined in the Poverty Reduction Strategy Paper and The Gambia Incorporated Vision 2020, which are blueprints for national development and eradication of poverty.

1.3 Program Goal and Key Results

The goal of the USAID/ BaNafaa 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.*

USAID/BaNafaa builds on the on-going efforts of the Department of Fisheries in The Gambia, working with 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 and other selected species. Sole is an important export commodity so this involves partnerships with export processing businesses as well. This is also a shared stock with Senegal. As gender equity is another important aspect of the project, USAID/BaNafaa 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 USAID/BaNafaa Project are to:

- IR 1: Strategies to increase social and economic benefits to artisanal fishing communities, and otherwise create incentives for a sustainable fisheries agenda in the WAMER identified, tested and applied
- IR 2: Institutional capacity strengthened at all levels of governance to implement an ecosystem-based, co-management approach to sustainable fisheries, and to prevent overfishing
- IR 3: Nursery areas and spawning areas for critical life stages of commercially important species and for associated marine turtles and mammals are protected
- IR 4: Change unsustainable and destructive marine resource use practices that threaten improved biodiversity conservation in the West Africa Marine Ecoregion

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.

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 USAID/BaNafaa 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 2 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.

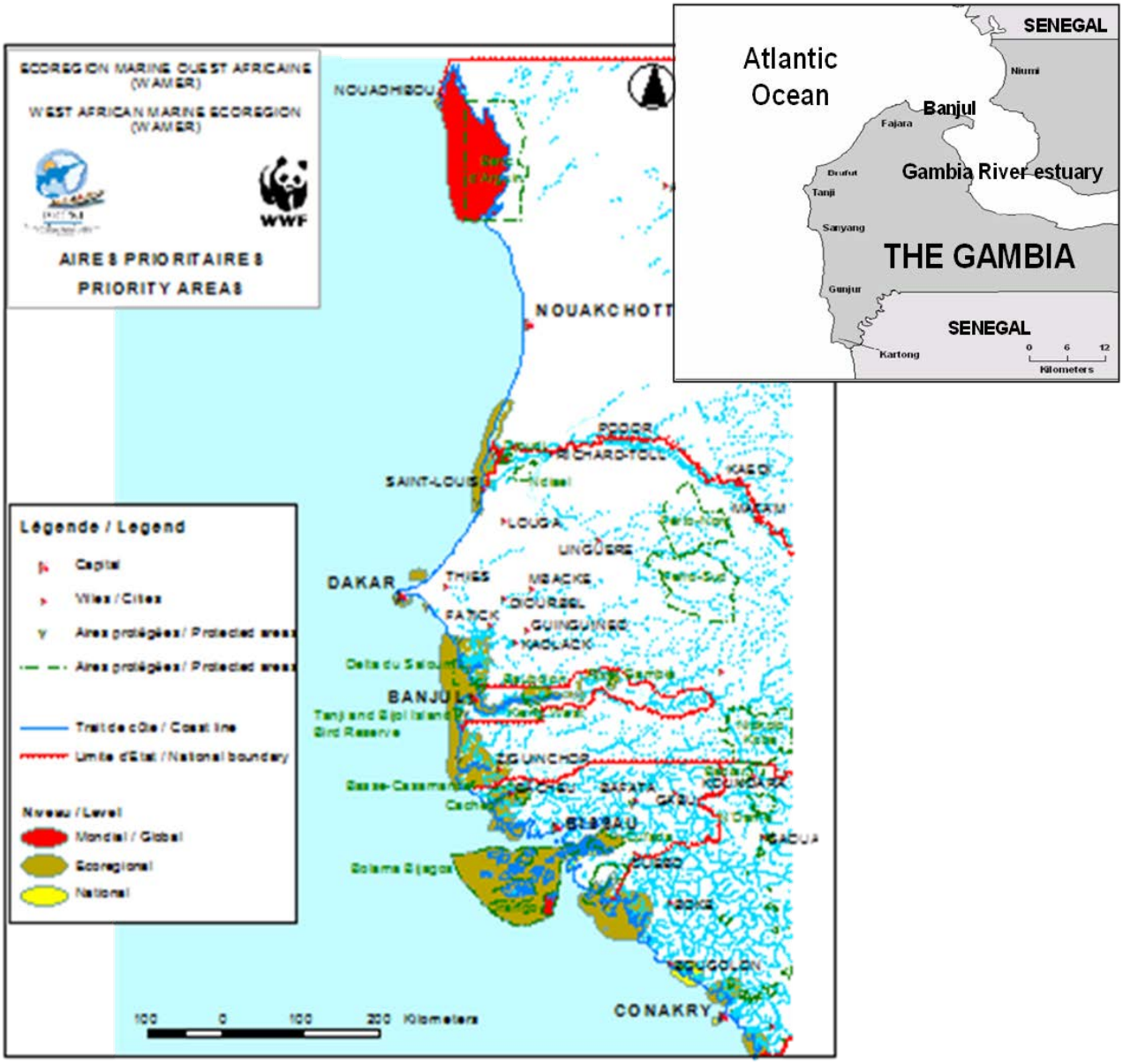


Figure 1: Areas of Biodiversity Significance in the WAMER and The Gambia River Estuary and Atlantic Coast

1.4 Rationale for Piloting Regional Demonstration Activities in The Gambia

The Gambia is the only country in West Africa that has enacted a fisheries legislation that makes it possible to adopt and implement a fisheries co-management plan under the Ecosystem-Based Fisheries Management (EBFM) approach. The Fisheries Act of 2007 is comprehensive legislation that addresses national as well as international fisheries issues in a holistic manner incorporating the FAO Code of Conduct for Responsible Fisheries and other relevant international fisheries conventions and protocols to which the country is a member or has assented to. Thus, a strong legal basis for the implementation of a co-management regime is already in place. The top-down approach to fisheries management is a thing of the past; now the fisherfolk and their communities are fully participating in all aspects of fisheries management including decision-making. Community Fisheries Centers have been established in major fish landing sites and are operating under a co-management arrangement with Government and other stakeholders. However, the fisheries co-management institutions need to be strengthened. The USAID/BaNafaa project has been providing the requisite leadership, financial and technical support. Much has been achieved yet more work is needed to achieve success and sustainability of a co-management approach that can serve as a model for other nations in the region.

The small size of the country and comprehensive fisheries legislation offer the unique opportunity to introduce the EBFM approach as a pilot and if successful the approach can be adapted in other countries where USAID is supporting sustainable fisheries development programs (Ghana and Senegal). The Gambia is a good model for fisheries co-management in West Africa and other regions with open access fisheries.

The USAID/BaNafaa project focus in the first 2 years of project implementation has been on the oyster and sole fisheries. As of January 2012, a co-management plan for the sole fishery will be adopted. The sole fishery is also now close to meeting the sustainability criteria for certification by the Marine Stewardship Council, and likely to be the first artisanal fishery in sub-Saharan Africa to get an Eco-label. Other countries in West Africa including Morocco, Mauritania and Senegal are interested in the work being done under this project and eager to learn from this experience. The oyster fishery activities are uniquely focused on women harvesters which are typically neglected in fisheries development planning. The management plan for the oyster fishery will give exclusive rights to the oyster fishery in the Tanbi wetland area to these women oyster harvesters who have now been organized into an area wide producer organization. Exclusive use rights to a fishery resource are rare in West Africa, let alone to women. This is the first case in sub-Saharan Africa where exclusive fishery harvest rights have been legally given to women harvesters.

Valuable lessons can be learnt from the implementation of the USAID/BaNafaa project, lessons that can guide the implementation of current and pipeline USAID Fisheries projects in the region. West African countries may also decide to revisit their fisheries legislations and make amendments incorporating provisions that will create a stronger enabling environment for the introduction of co-management and EBFM approach to fisheries that can protect important marine bio-diversity assets, reduce their vulnerability to climate change and strengthen fish product food security through well managed resources.

The Legal Basis for Co-Management in The Gambia

Section 11 of the Fisheries Act gives power to the Minister of Fisheries to determine participatory rights in a fishery, such as allocations of the total allowable catch or of the total allowable level of fishing and this may include restrictions as to vessel type, gear type, seasons of operations, and areas in which fishing can take place; and any other restriction relevant to fisheries conservation, management and development.

Under Section 14, the Minister of Fisheries may, in the interest of conservation, management and sustainable utilization of fisheries resources, by Notice in the Gazette, declare any area of the fisheries waters and corresponding adjacent areas, including marine protected areas or reserves established under any other laws, to be Special Management Areas for purposes of community-based fisheries management, and the application of certain conservation and management measures and artisanal or subsistence fishing operations or any combination of the foregoing purposes or other specified purpose. The Notice published may specify the specified Special Management Area: the persons or groups of persons or types or classes of vessels that may be allowed to fish; the methods of fishing that may be used, the terms and conditions of fishing; and any other conservation and management measure that apply.

Section 15 stipulates that the Minister of Fisheries may, in consultation with the Local Authorities and where applicable, in accordance with the Local Government Act and other laws of The Gambia, establish a Community Fisheries Centre for the purposes of community-based fisheries management and may allocate the Management Areas or parts of them for which a Community Fisheries Centre shall be responsible under this Act and describe the rights and responsibilities of a Community Fisheries Centre in respect of the Special Management Areas or parts of them, taking into account the concerns of communities living within the immediate environs of the area to be declared as a Special Management Area.

The Fisheries Regulations of 2008, mandate that all fishing vessels must be registered and obtain fishing licenses as well.

2. Year 3 First Six Months Accomplishments

2.1 Intermediate Result 1

Strategies to increase social and economic benefits to artisanal fishing communities, and otherwise create incentives for a sustainable fisheries agenda in the WAMER identified, tested and applied.

No	Indicator	FY12 Target	Q1	Q2	Q3	Q4	FY12 Actual
1	Number of businesses economically benefiting	250	150	129			279 to date
2	No persons receiving econ. assistance packages (grants, training, etc.)	260	150	129			279 to date
3	Number of people with improved access to loan capital	250	150	129			279 to date
W1	Improved access to water and sanitation facilities	0	0	0			
W2	Number of persons receiving Participatory Hygiene and Sanitation Transformation (PHAST) Training.	280	0	0			
W3	Number of persons receiving training and outreach messages on hygiene promotion	1000	0	0			
W4	Community water and sanitation committees established and trained with program assistance	2	0	0			

Progress on Activities Contributing to This Intermediate Result:

Project activities described under the sub-headings below have contributed significantly and directly to this IR. The results of the strategies identified, tested and applied in economic and social terms and the degree to which they have influenced a broader sustainable fisheries agenda in the WAMER are preliminary at this stage. The quantification of number of businesses and persons benefitting, as reported in indicators 1-3 for this IR, are achieving and exceeding targets specified in the Project Design and for Year 3 (FY12). However, these numbers do not reveal the underlying complexity of the benefits and the degree to which they are sustainable. USAID/BaNafaa project activities have, to date, focused on creating the enabling conditions for longer term sustained benefits. WASH indicators are also on track for achieving FY12 targets. The progress made on key activities is described below.

a. Effective Sole Fishery Co-Management Plan and Support for MSC Certification Readiness

The potential both for advancing the sustainable fisheries management agenda and for social and economic benefits for artisanal fishing communities in the sole fishery in The Gambia is great as progress is made towards Marine Stewardship Council certification and having the MSC eco-label. The activities of the USAID/ BaNafaa project in the sole fishery to date have been directed at supporting and building the capacity of the government of The Gambia and other stakeholders to manage the Gambian artisanal sole fishery at a standard that can meet the eligibility criteria for MSC certification. The USAID/BaNafaa project has been the most significant partner of The Gambian Government in this effort. In 2010, the USAID/BaNafaa

project entered into a Memorandum of Understanding (MOU) with the Department of Fisheries (DoFish), The Atlantic Seafood Company and GAMFIDA to assist the Gambian stakeholders address the deficiencies outlined in the September 2008 MSC pre-audit report. One of the key activities is USAID/BaNafaa's support for the development of a Sole Fishery Co-Management Plan for the artisanal sole fishery.

The project has facilitated the setting up of community based sole committees (LACOMS) and a national co-management committee (NASCOM) and has contributed technical assistance for sole stock assessment, by-catch research, critical spawning area hotspot mapping using local ecological knowledge, value chain analysis, and vessel licensing and registration, as well as on stakeholder capacity building and the stakeholder consultation process for developing the co-management plan. Technical reports are posted on the CRC website. As a result, the organizational framework for fisheries co-management has greatly improved since 2009. The fishing communities are better organized with functional committees at local and national levels working to serve their collective interests. DoFish staff have been involved in all processes from the start. So have other government agencies such as the Gambia Navy, Gambia Maritime Authority, Local Government Municipalities, as well as fisheries non-governmental organizations GAMFIDA and NAAFO. These actors have worked towards consensus building on access limitations, closed and protected areas, mesh size regulations and responsible fishing practices, all of which are prerequisites for sustainable fisheries in The Gambia. Without USAID/BaNafaa project support, the Sole Co-Management Plan would not have been developed in this manner at this pace. Progress towards MSC certification, which is expected to happen later in Year 3 or in Year 4 of the project (FY12-13) and for which the Co-Management Plan is a significant milestone, would not be considered possible at this point in time without the direct contribution of the USAID/BaNafaa Project. If certified, The Gambian sole fishery would be the first artisanal fishery to obtain MSC certification in Africa.

Evidence that these strategies, the Sole Co-Management Plan and MSC certification, will increase social and economic benefits to artisanal sole fishing communities will be evaluated in later years. What we can say at this point is that: 1.) artisanal fishing communities have a greater say (including exclusive use rights) in the management of the fishery upon which their livelihoods are based and, 2.) the highly participatory process of developing the Sole Co-Management Plan has provided them with a better understanding of the fishery and of the importance of their participation in continued research and analysis in order to make informed and ecologically sound decisions on management measures. In an increasingly demanding international market, it is hoped that MSC certification will, at the very least, prevent The Gambia from losing its export market for Sole. The eco-label may also open up new markets and increase sole fish exports for revenue and foreign exchange earnings. Demand for sole fish could increase, creating additional employment opportunities in fish processing establishments. This would also mean that the economic benefits could filter down to the fishing communities in terms of increase in catch landings as well as a potential increase in the price per kilogram of sole fish at landing points. The price per kg has remained unchanged at D20/kg (less than $0.75) over the past 3 years.

Accomplishments Year 3 (thru March 31, 2012):

1. Approval of the Sole Fishery Co-Management Plan: Approval, signing by the Minister of Fisheries, Water Resources and National Assembly Matters and NASCOM and public launch of the plan occurred on January 17, 2012 with the participation of the USAID/WA AOTR for the USAID/BaNafaa Project and the U.S. Ambassador to The Gambia, following two final steps:

- Stakeholder Meeting in November, 2011. Seventy-five participants from all stakeholder groups reviewed the final plan and provided final comments. Dr. Kathy Castro of URI/Fisheries Center was in The Gambia for this meeting. Following the meeting, final revisions were made to the plan, including more specific language on climate change impacts and adaptation as a priority area of future research.
- DoFish Advisory Committee Meeting. This committee, mandated by the Fisheries Act of 2007, includes the Permanent Secretaries of State, Trade and Industry, Local Government and Lands, and Health and Social Welfare, as well as the Commander of the Navy, the Executive Director of the National Environment Agency, Director General of The Gambian Maritime Administration and representatives of the industrial, artisanal and aquaculture fisheries sectors. They endorsed the final version of the Plan.

THEREFORE, I HEREBY:

Declare as a Special Management Area for the purposes of fisheries management, a sole fisheries zone from the Atlantic shoreline and shorelines adjacent to the estuarine areas of The Gambia River out to 9 nautical miles.

Designate the NASCOM and its associated LACOMs through the Community Fisheries Center Management Committees as having exclusive use rights to the sole fishery in this area.

Delegate authority for the responsible and sustained management and conservation of the sole fishery resources in this area to the NASCOM and its associated LACOMs through the CFCs in accordance with the management plan herein.

Figure 2: Sole Co-Management Plan Agreement

The Plan must now be gazetted for public notice. This has been delayed due to the turnover of Ministers following Presidential elections in November 2011. The previous Minister of Fisheries, Water Resources and National Assembly Matters, who signed the co-management plan was replaced in February 2012. The USAID/BaNafaa Project Manager met and briefed the new Minister, who promised in a public speech on April 10 to gazette the plan. On April 17, he was appointed Minister of Finance and replaced at Fisheries by the recent Minister of Foreign Affairs, Mamadou Tangara. Gazetting is expected during quarter 3.

2. Implementation of the Sole Co-Management Plan:

a. DoFish Capacity. USAID/BaNafaa provided technical assistance to DoFish for the institutionalization of its stock assessment and database management responsibilities. The

University of Rhode Island Fisheries Center technical specialists Dr. Kathy Castro, Barbara Somers and Najih Lazar traveled to The Gambia from October 29 to November 7, 2011to assess and provide recommendations to DoFish on organizational structure, staffing, staff training and planning for an adequate budget to support stock assessment and database management functions sustainably. Two staff were identified to begin on-line stock assessment training and to work on the database with distance support from URI. The training began in late January and will continue through the end of June 2012.

b. NASCOM capacity. With guidance and technical (but not financial) support from the project, NASCOM applied for and obtained official registration as a community based organization (CBO) in January 2012. NASCOM has prepared an activity plan, the key component of which is to sensitize the LACOMS on the co-management plan and its implications, the powers they have and the management measures they are committed to follow. Since January, NASCOM has been conducting an outreach program and has visited each of the four main sole fish landing sites (Kartong, Brufut, Sanyang, Gunjur). They will continue the program to visit the other sites next quarter. NASCOM realizes that the LACOMS need capacity building. Gunjur, the President of NASCOM's LACOM, is the most active. The fact that NASCOM has not relied on financial support from USAID/BaNafaa to mobilize for co-management plan implementation is a positive indicator of the future sustainability of its actions.

Fishermen are eager to implement the 1 nm seasonal closure beginning on May 1 in accordance with the co-management plan. While fishermen will begin complying, penalizing of violators will not be feasible until the law to goes into force following gazetting. Marking of the 1nm area with buoys as indicated in the management plan has also not yet been done. One idea is to use part of the funds donated by the German Seafood Company Kaufland to support sustainable seafood from The Gambia for this purpose.

Implementation of the sole co-management plan seasonal closure in The Gambia and sustainable management of the fishery is facilitated by the fact that Senegal recently began implementing a seasonal closure of its coastal waters on the Casamance side of the Allehein River. Although they have also not marked the closed area with buoys, a Gambian fisherman was recently fined for fishing there, indicating effective enforcement.

NASCOM is also enthusiastic about the low cost, on-board ice box pilot that was planned for Year 3 through a grant to NASCOM. Although the pre-conditions for the grant are still in process, NASCOM has already identified someone at the Tanji landing site who is recycling insulation from old freezers and making a box for a much lower than anticipated cost. Due to reduced unit costs, NASCOM would like to conduct a larger pilot using all of the four main sole landing sites. This would engage more fishermen, increase the strength of the findings and facilitate diffusion and adoption of the model if it is successful. Reducing post-harvest losses before the catch is landed and sold could significantly increase returns to fishermen.

b. Effective Oyster and Cockle Co-Management Plan

The USAID/BaNafaa project has been the principal partner of the Government of The Gambia and the TRY Oyster Women's Association in the development of the Oyster and Cockle Co-Management Plan. The Project has contributed technical assistance for PRA'S in the oyster

harvesting communities, water quality surveys at oyster and cockle harvesting sites in the Tanbi Wetlands, a preliminary shellfish shoreline sanitation survey in Banjul, oyster spatfall studies, oyster and cockle aquaculture pilot action research and oyster value chain analysis. Technical reports are posted at the CRC website. The project has also facilitated the stakeholder consultation process for developing the co-management plan and for building the capacity of the TRY Women's Oyster Association to represent and act in the interest of its members.

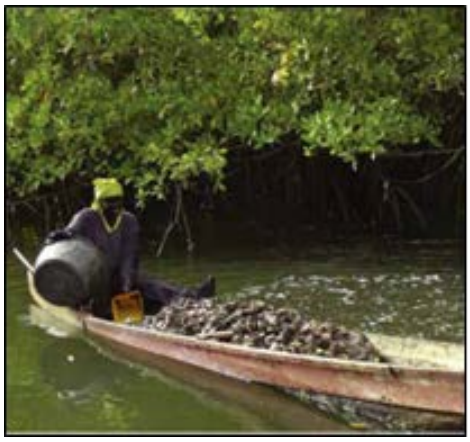
Even before official approval, which provides for exclusive use rights and decision-making authority of TRY and its membership committees in their local areas, there are already tangible social and economic benefits to the women cockle and oyster harvesters and to TRY. The benefits can be better appreciated from the point of entry of the USAID/BaNafaa project. Barely five years ago, the cockle and oyster fishery was not recognized and did not feature in the national fisheries development program. Also, TRY membership is comprised of middle aged women, mostly widowed and uneducated and yet the bread winners of their families. The women suffered disproportionately from indebtedness and economic hardships during the closed harvesting season and a difficult and hazardous working environment during the harvesting season. Benefits can be summarized as follows:

- The work conditions of the women have improved. They now have access to proper working gear, including work boots, boats, life jackets, and improved harvesting and shucking tools, thus markedly reducing the work hazards.
- The women now wear gloves and uniforms for marketing their products, a practice which improves the hygiene of the product, differentiates the higher quality product and makes it easily visible in the market.
- Preliminary results of extending the closed season in 2011 to allow for more growth and larger oysters indicate that this more ecologically sound practice may also provide a 30% price increase on the market. This practice is institutionalized in the Co-Management Plan.
- Pilot aquaculture action research tested techniques for oyster rack and basket culture to increase production using local materials. TRY members have now seen the potential of the techniques and its costs and can decide whether they will pursue aquaculture with their own investments. TRY has also received a GEF grant for rack culture scale up.
- In Year 1, 24 members of TRY visited oyster harvesters and processors in Senegal and the TRY Executive Director went to Tanzania to see oyster processing and livelihoods work. In Year 2, four members of TRY, including the Coordinator went on a study tour to Senegal on improved oyster processing techniques. Due to the favorable results of USAID/BaNafaa water quality testing work, development of fresh oyster markets locally and eventually internationally is also a longer term possibility.
- Training in enterprise development and the introduction of a microfinance program (initiated by TRY and supported by the USAID/BaNafaa project) have built the capacity of TRY members in basic financial and small-business management and provided access to credit to 250 TRY members in Year 2. The credit is designed to enable the women to engage in value added activities for oysters as well as in alternative livelihoods during the closed harvesting season. Many have now developed the culture of saving money for the first time in their lives.
- TRY members were trained in soap-making as an off season livelihood option.

- 30 daughters of TRY members are undergoing training in culinary and handicraft skills at the TRY Center as a means of earning money to supplement the family income (the young women are high school drop-outs because the parents could not afford pay school fees). (Not a directly USAID/BaNafaa supported activity).
- Through the fundraising efforts of TRY, the Ministry of Education has, for the first time, awarded 17 school scholarships to the most deserving children of the oyster harvesters.
- With the technical assistance of USAID/Ba-Nafaa, TRY has developed a comprehensive business plan that includes sections on: Enterprise Sustainability, Market Segmentation, Marketing and Sales, Healthcare and Insurance, Financial Analysis, Cost and Revenue projections, Operating Procedures, and Plans for a Sustainable Building proposal to establish a permanent multi- purpose processing center for TRY. An application for land has been submitted to Government, reviewed and additional information requested.
- As USAID/Ba-Nafaa has supported strengthening TRY, other organizations have started to provide financial support as well. They include the Global Environmental Facility (GEF) through the National Environment Agency, the Banesto Foundation of Spain, the Friends of Gambia and Senegal based in America, the Association of Small-Enterprises, Women's Bureau and the Department of Community Development.

Accomplishments Year 3 (thru March 31, 2012):

1. Approval of the Oyster and Cockle Fishery Co-Management Plan: Approval, signature by the Minister of Fisheries, TRY and 4 government departments and agencies, and the launch ceremony for the plan was combined with the sole plan on January 17, 2012. The oyster and cockle plan was also the subject of final stakeholder review meetings prior to approval. As for the sole plan, one of the revisions added was specific language highlighting potential climate change impact on the fishery and the need for climate change mitigation, vulnerability and adaptation to be considered as research priorities. The Oyster and Cockle Plan also still needs to be gazetted for public notice. This is planned for Quarter 3. TRY may be the first African women's organization granted exclusive user rights for sustainable management of a national fishery. Gambia may be the first African country to grant such rights to women.



THEREFORE, I HEREBY:

Declare the area congruent with the Tanbi Wetlands National Park as a Special Management Area solely for the purposes of fisheries management.

Designate The TRY Association as having exclusive use rights to the cockle and oyster fishery in this area.

Delegate authority for the responsible and sustained management and conservation of the cockle and oyster resources in this area to The TRY Association.

Figure 3: Oyster & Cockle Co-Management Plan Agreement.

2. Implementation of the Oyster and Cockle Co-Management Plan:

a. TRY Capacity. A series of meetings and trainings were held in late January and February at the TRY Center and in various communities to prepare members for the opening of the oyster season (March 1st) and to update them on recent developments and future endeavors of TRY. Members were:

- briefed on the importance of wearing their uniforms, gloves, and ID badges when selling oysters
- reminded of their annual membership subscription and membership fees
- trained by the National Association of Cooperative Credit Unions of The Gambia (NACCUG) on the importance of saving and managing money
- trained by Dr. Bamba Banja, USAID/BaNafaa WASH Coordinator, on proper food handling and hygiene.

Representatives from each community attended a meeting at the Center in late February to:

- discuss oyster prices for this season
- promote the use of scales
- elect new local governing board members. As outlined in the TRY Association Constitution, every two years these positions are up for re-election. The newly elected board is: President - Isatou Sambou of Wencho, Vice President - Nenneh Sambou of Abuko, Secretary - Isatou Jarju of Kartong, and Treasurer - Ami Sambou of Abuko.
- share the information presented at the meeting with the other members of their communities.

Figure 4: General meeting at TRY Center in February 2012.

b. Processing and Marketing. As of March 1st TRY women are harvesting and selling oysters. The women have reported increased oyster size, most likely due to the delayed start of the oyster season institutionalized in the Oyster and Cockle Co-Management Plan. Because DoFish does not currently have the capacity and because TRY is motivated to develop market opportunities, the project will support TRY to set up a system of regular data collection at sales points to capture both market and basic stock information. The Peace Corps volunteer posted with TRY (and supported by the project) will work with TRY staff and members to conduct this activity when she returns from home leave in May. Retail oyster prices were set by the women at: smoked GMD 25/cup, boiled GMD20/cup, and small oysters GMD15/cup. The TRY Center is now purchasing boiled and smoked oysters from the women at GMD105/kg and GMD 160/kg respectively. TRY cleans, packages, and resells them at GMD140/kg and GMD200/kg, respectively. This provides revenue for TRY, while offering the women a secure market and reducing the time they spend selling. TRY plans to spend about GMD 50,000 to purchase oysters from the women this season, estimating a profit of approximately GMD12,500 ($416).

TRY has been encouraging the sale of smoked oysters as customers have expressed interest in this product and it brings a higher price. With funds USAID/BaNafaa Grant 2 to TRY, a demonstration smoking stove was constructed at TRY's Kamalo landing site by a Senegalese team that the TRY Executive Director and other TRY members met during their visit to FENAGIE in Senegal last year. The stove is closed, reducing fuelwood use (labor and environmental benefits) as well as smoke inhalation and danger from oyster shell fragments exploding in the fire (health and safety benefits). TRY has trained the women to use the stove. If production from the stove is successful and the demand for smoked oysters proves to be substantial, TRY's goal is to bring smoking stoves to every landing site. With the second round of mangrove planting funded under its GEF grant this rainy season, TRY will continue to mitigate the impact of fuelwood use, which is less for this stove than for the current practice of boiling on a three stone open fire.

Figure 5: Oyster smoking oven technology transferred from Senegal, constructed at Kamalo oyster site.

To increase sanitary measures when handling and processing oysters, TRY is promoting the use of scales. The goal is to eventually replace selling by the cup with selling by the kilogram. TRY has made scales available for the women for purchase. Although learning to use and feeling confident using the scales may be a slow process for the women, selling metrically will add professionalism to the oyster product, as well as to the reputation of TRY.

Figure 6: Promoting the sale of oysters by metric scale.

TRY's annual awareness-raising and fundraising event, the Oyster Festival, is scheduled for April 28th. It will take place at the Kamalo landing site where the demonstration smoking oven is located and where TRY plans to develop eco-tourism excursions to showcase TRYs work. It is also the site where TRY hopes to eventually construct its headquarters and processing center. The architect who designed the FENAGIE processing Center in Senegal was contracted by TRY with USAID/BaNafaa support to design the TRY Center. TRY commented on draft plans and is waiting for the revisions. In the meantime, TRY met with the Gambian Ports Authority, which agreed to assist TRY to make immediate improvements at the site with a 40 foot shipping container and necessary modifications so that it can be used for a sales kiosk.

c. Mangrove Reforestation: In October 2011, USAID/BaNafaa supported the reforestation of 2.5 hectares of mangroves (rhizophora racemosa) in Kartong. Participation of TRY members and their families as well as others from the community was enthusiastic. More than 48 people planted more than 8,481 propogules. A USAID/BaNafaa branded signboard marks the replanted area. The mangrove reforestation will directly benefit TRY members by protecting degradation of the mangrove ecosystem which is important to bivalves and other species. It is one of the management measures specified in the co-management plan. In addition to the USAID/BaNafaa funded site in Kartong, TRY reforested an additional 6.71 hectares at 2 sites (Old Jeshwang and Fajikunda) funded by TRY's GEF grant during quarter 1 of Year 3 and expects to continue in other areas with the second disbursement of GEF funds received in March 2012.

Figure 7: Signage marking the mangrove reforestation area in Kartong

d. Aquaculture Action Research: Cockle redistribution and oyster basket culture pilot activities carried out by TRY members continued this year with support from the local fisheries officer and the Peace Corps Volunteers in Kartong and Banjul. The Kartong volunteer completed her service in January and will be replaced in May. Environmentally friendly aquaculture research and development is also a management measure specified in the co-management plan. Cockle redistribution in Kartong is showing enough positive results and strong motivation from the women to continue as part of the development of a Kartong Oyster and cockle management plan as projected in the USAID/BaNafaa Year 3 workplan. Additional experimental plots located lower in the intertidal zone will be added next quarter. Floating basket culture of oysters will only be continued if the women choose to do it on their own, as the cost of materials compared to the volume and value of oysters does not appear to be profitable. Likewise, USAID/BaNafaa has not continued to fund scale up of rack culture of oysters piloted in the Tanbi in Year 2 due to the lack of a clear economic benefit unless the activity is subsidized. TRY will, however, continue to pursue scale up and cost/benefit analysis with GEF funding, focusing on the lowest technology, cost and labor options. For example, strings with old shells or cut tire squares as the substrate hung directly on mangrove roots or on eucalyptus poles tied to mangrove roots. Cut tire squares may be an attractive option as they are free, the oysters may spread out better and grow larger with less clumping and can be removed by twisting the tire square, significantly reducing labor and the cost of replacing the substrate and string each time. Aquaculture reduces pressure on the mangroves, could extend the harvest of larger, higher value oysters later in the season and could significantly reduce travel time to and from ever more distant harvesting sites as the season goes on, but the wild harvest is currently so plentiful it is not evident that aquaculture could produce comparable volume with comparable effort and cost/benefit.

e. Literacy training: TRY members are now receiving training in basic literacy and numeracy in English. Three classes of approximately 30 women TRY members are underway in the communities of Old Jeshwang, Abuko and Daranka. Two classes started in November and one in December. They meet 3 times per week for 2 hours. Classes will continue for 6 months with a break during the peak oyster harvesting season. The women look forward to the positive impact they expect these skills to have on their marketing activities, overall self-reliance and access to other learning and economic opportunities. During some of the TRY trainings and meetings held in February, TRY noticed a few more women than usual chose to sign their names on the travel reimbursement sheets instead of signing by thumb printing. With pride and big smiles, these women explained how they learned to write their names in the literacy classes.

f. Microfinance: A new 6 month cycle of microfinance loans has been initiated in Year 3. This cycle is designed to reward and institutionalize the practice of saving. Women who are able to save 500GMD or more are eligible for new loans. Loans range in size from 500 – 5000 GMD determined by the amount of savings. With USAID/BaNafaa financial support, NACCUG provided another training to the whole group, who now understand the benefits of saving rather than just repaying loans. The 279 TRY members who are enrolled in the Round 2 loan program are counted for IR1 indicators 1, 2 and 3 in the table above. With the start of the oyster season, women have begun to make payments towards their loans. With the help of an American exchange student, TRY is now inputting all of the microfinance loan accounts into Microsoft Excel, providing both hard and soft copy records.

g. Skills Training of TRY Daughters: Alternative livelihood development is also a management measure specified in the co-management plan to reduce pressure on the resource. Although not directly funded by the USAID/BaNafaa Project, the skills training program for 30 TRY members' daughters continued this Year. TRY received a donation of an oven from the Public Utility Regulatory Authority, worth GMD 18,000 for use in this activity. While the training program is still in the skill building phase, the goal is to sell the products and services generated by the training and to eventually earn enough income to sustain the training activity itself. The products made by the girls in training will be for sale at the TRY Oyster Festival in April.

h. Water Quality, Shoreline Sanitation Survey and a Gambian National Shellfish Sanitation Plan (GNSSP): Water quality testing to determine whether there are public health risks from contamination of oyster harvesting areas has continued in Year 3 at 16 oyster harvesting sites within Tanbi Wetlands and Western Region. Testing is conducted on a fortnightly basis and analyzed at the laboratory in Abuko. Total and fecal coliforms are determined by use of the membrane filtration method, using standard TC and FC media. Coliform counts are done using 25 mL of filtrate and reported as colony counts per 100mL of sample as is routinely reported in shellfish sanitary water quality literature (e.g. Graybow et al, 1981). The results of the study to date show that both total coliform and fecal coliform counts were relatively low in all sample sites. The data from the Tanbi sites appears to be reasonably clean in comparison to U.S. NSSP Total Coliform water sanitation standards. However, the upcoming rainy season data will be the second year of data for this most vulnerable period and will be important to establish the consistency of results over time.

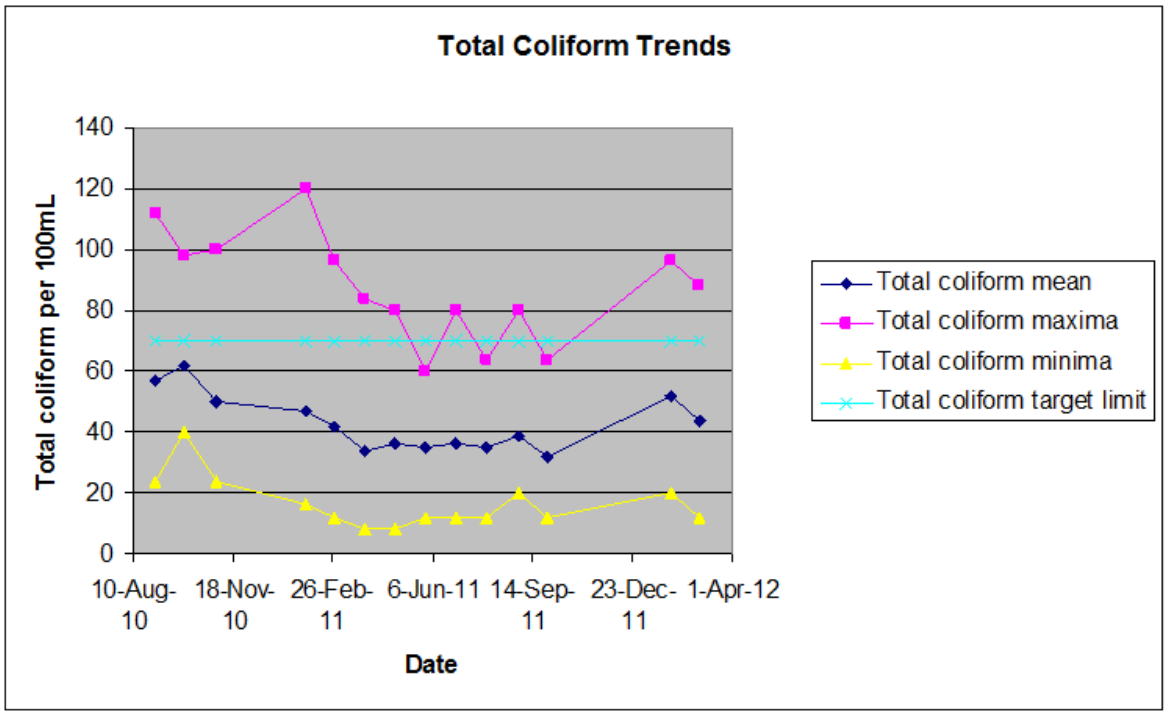


Figure 8: Average Total Coliforms at oyster harvesting sites 2010 – 2012.

In addition to water quality testing and the use of resulting data to manage the oyster fishery, shoreline sanitation survey techniques enable decision makers to identify areas of critical threat to shellfish sanitation. As planned for Year 3, Dr. Michael Rice of URI provided training in The Gambia to an inter-agency team on how to conduct the shoreline sanitation survey and the development of a Gambian National Shellfish Sanitation Plan. This training built on the June 2011 training provided on this theme to Gambian participants at URI, who then presented their work on a draft GNSSP to Gambian authorities. Participants in the January 5, 2012 seminar requested that the seminar be presented again to decision makers at the department, ministry and national assembly levels of the Gambian government so that a framework for an interagency Memorandum of Understanding (MOU) to form a Gambian National Shellfish Sanitation Program (GNSSP) could be discussed. The second offering of the seminar occurred on January 16, 2011.

The project then supported the Water Resources Laboratory to conduct a shoreline sanitation survey of 15 TRY oyster harvesting sites where water quality is tested. The Results of the survey were discussed at an interagency meeting and the final report was produced in February 2012. To improve the sanitary conditions of the oyster harvesting sites and comply with US NSSP standards, the report recommended the following:

- Develop a Gambian NSSP
    - Develop G-NSSP standard operating procedures
    - Develop an MOU that specifies responsibility for each agency (Department of Fisheries, Department of Water Resources, Department of Health, National Environment Agency, Department of Parks and Wildlife Management,

Department of Forestry, Governor of WCR, Brikama Area Council, Kanifing Municipal Council, Banjul City Council)
    - Develop funding mechanisms for interagency cooperation in developing and implementing the GNSSP
- Identify and remediate the known fecal contamination
    - Define and map out shellfish growing waters and identify problem areas
    - Establish a working group of all interested stakeholders to address the sanitary problems.
- Implement water quality and sanitary shoreline surveys
    - Collaborate with all stakeholders and establish water quality classification zones

In addition to coverage of these issues by the local media, the results of the shoreline sanitation survey were acted on immediately by TRY. They requested a meeting with local authorities at Old Jeshwang, where a piggery was found to be threatening water quality at the oyster harvesting site. With the Department of Fisheries and the Vice President's office attending the meeting, a decision to move the piggery was reached. The recommendations of the Shoreline Sanitation Report will be acted on in the coming months. Dr. Rice gave a presentation of this work at NOAA's Milford Aquaculture Seminar in Connecticut in March 2012.

i. TRY Outreach/Expansion. Upon the request of a Peace Corps Volunteer posted in Kemoto, the TRY Executive Director along with TRY representatives, Fatou Sambou, former TRY President, and Sabel Jatta, visited the site to meet with the women oyster harvesters of the area. Kemoto is a small Mandinka village located in Kiang West close to the Gambia River. Representatives from all of the surrounding villages attended, including Maduwar, Taqular, Maina, Misera, Kemoto, and Jail, as well as posted officials from the Department of Parks and Wildlife and the Department of Fisheries. The meeting was a good start in connecting TRY with other communities of women oyster harvesters and to think about expanding its membership to assist and provide support to other oyster harvesting communities in The Gambia. The meeting was also important for information gathering, including the tools used, the conditions of the mangroves in the area, the local market for oysters, as well as the quantity harvested and size of the oysters. The women explained how there is little market in the area for oysters and how they often harvest oysters for home consumption or give them away. They also explained how there is not much organization between the various communities, with each community group acting on its own. TRY is excited at the prospect of working with these women in collaboration with the Peace Corps Volunteer and local officials. A visit of these women to TRY members in Kombo, where they go to market vegetables) is planned in the coming months, including a visit to the TRY Center.

c. Water & Sanitation

In July 2011, the USAID/BaNafaa Project was awarded a Water and Sanitation add-on for $759,126 to support needed water and sanitation activities linked to the artisanal fishery and Community Fishery Centers (CFCs). These centers are fish landing and public fish market sites where fish is taken from boats, washed and iced, sold, and in some cases, smoked in adjacent processing facilities. Some catch is sold and transported to export processing plants. There are seven CFCs located along the South Atlantic coast and 11 CFCs in the major inland fishing

villages along both banks of the River Gambia. The Ministry of Fisheries and specific CFCs have indicated that Water and Sanitation are development priorities for the artisanal fisheries sector and have expressed their interest in having the *USAID/BaNafaa* project provide assistance in this area.

The objectives of these WatSan activities are to improve water supply and sanitation at approximately seven public fisheries landing/processing facilities, including oyster harvesting/processing sites. This will provide direct benefit to the thousands of fishermen, oyster harvesters, women fish venders, small scale fish processers and other laborers that utilize these facilities daily. An added benefit is that clean water supply and sanitary facilities at these sites will also result in improved sanitary handling of seafood supply and result in safer and healthier seafood product that enters both the local food chain as well as processing centers for export. In addition, recent research on small-scale African fisheries suggests that addressing high priority fisher household vulnerabilities such as water, sanitation and health issues are likely to increase incentives for fishermen to engage in more sustainable fisheries management practices[1].

As of the end of Year 2, URI had established its in-country office at the TRY Center and recruited a WASH Coordinator, Dr. Bamba Banja.

Accomplishments Year 3 (thru March 31, 2012):

1. WASH Office set up: A Toyota Hilux was purchased and delivered in October 2011. An Administrative and Financial Assistant to the WASH Coordinator, Mr. Assan Camara was recruited and started on November 1.

2. Sub-Contracting: Sub-contracts with TARUD and GAMWORKS for implementation of their respective elements of the FY12 workplan were put in place and initial advances transferred. TARUD is responsible for a needs assessment to identify 6 or 7 priority sites and will be responsible for the training and management planning components of the WASH activities. GAMWORKS is responsible for the design, sub-contracting and oversight/quality control of infrastructure construction as well as environmental compliance documentation.

3. Sensitization meeting: A one day meeting on the objectives and activities of WASH was conducted on December 13, 2011. Twenty-eight participants were present, including the Permanent Secretary of Fisheries, Water Resources and National Assembly Matters, representatives from the Public Health Department, the National Environment Agency, Department of Fisheries, GAMFIDA, NASCOM, TRY, Department of Parks and Wildlife Management, Department of Forestry and the media. The purpose of the meeting was to inform and engage stakeholders present at the meeting, and the general public through media coverage, on the USAID/BaNafaa WASH component. In particular, that a needs assessment would be conducted in 16 communities starting in January. An open process, with stakeholders well informed, is important to minimize frustration when only 7 of the 16 sites are to be selected.

4. Site visits: The WASH Coordinator visited each of the 16 communities targeted by the needs assessment before it began to reinforce the importance of broad-based participation by all

[1] Mills, D., et al. 2009. Vulnerability in small-scale African fishing communities. J. Int. Dev. DOI: 10.1002/jid.

stakeholders, including the local authorizes and women in particular and to answer any questions from the community. In addition, local radio spots were broadcast during this time to inform communities of the coming needs assessment.

5. Needs Assessment: In consultation with the WASH Coordinator, TARUD developed and tested the methodology and tools (principally PRA tools) for the needs assessment. A training of 10 TARUD needs assessment team members/facilitators was conducted by TARUD on the 27-29 December 2011, using trainers from Concern Universal. The needs assessment field work was conducted in January, 2012. In February and March, data was compiled and analyzed, secondary data and key informant interviews at the national level were conducted and a first draft of the needs assessment report produced. A stakeholder meeting to review the results of the needs assessment, finalize the report, and prioritize sites will be conducted in April.

2.2 Intermediate Result 2

Institutional capacity strengthened at all levels of governance to implement an ecosystem-based, co-management approach to sustainable fisheries, and to prevent overfishing.

No	Indicator	FY12 Target	Q1	Q2	Q3	Q4	FY12 Achieved
4	Number of govt. agencies or management bodies strengthened or created	1	0	0			
5	Number of government personnel, community leaders and private sector stakeholders trained in natural resources mgt	260	1	18[2]			
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[3]	Sole & oyster improving	0	Sole & oyster improving			
7	Number of fishermen and women with collective or individual use rights (collective quotas or territorial use rights, saleable licenses)	810	0	810 500f 310m			
8	Number of stakeholders participating in regional meetings and/or exchange visits	60	1	0			
9	Number of workshops/meetings on policy reform for the artisanal fisheries sector held between Senegal and the Gambia	3	0	0			
10	Number of reports documenting transboundary issues and alternative solutions	1	0	1			
11	Number of policies laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance.	2	0	2			
CC1	Number of climate vulnerability assessments conducted as a result of USG assistance	1	0	1			

[2] Members of TRY who received training in microfinance and in hygiene and food handling were not counted yet as documentation of exact numbers was not yet available at the time of this report.
[3] Scorecard based on governance indicators in UNEP/GPA Ecosystem Based Management Guide

CC2	Number of stakeholders using climate information in their decision making as a result of USG assistance	30	0	0			
CC3	Number of institutions with improved capacity to address climate change issues as a result of USG assistance	8	0	0			

Progress on Activities Contributing to This Intermediate Result:

a. Sole and Oyster Co-Management Plans and Readiness for MSC Certification

As discussed under IR 1 above, the USAID/BaNafaa Project has been engaged in a more than 2 year long process with government agencies and non-governmental stakeholders to develop eco-system based co-management plans for the artisanal sole fishery and the cockle and oyster fishery in the Tanbi Wetlands National Park. The institutional strengthening of agencies and the training of personnel accomplished to date and applicable to this IR (indicators 4 and 5) are also described under IR 1 above and in the TraiNet Table in Section 3.4 below. Institutions strengthened with USAID/BaNafaa assistance as of the end of Year 2 (FY 11) included the LACOMS in 7 communities (Gunjur, Brufut, Sanyang, Tanji, Batokunku/Tujereng, Bakau, Banjul), NASCOM, GAMFIDA, NAAFO, TRY, and the Department of Fisheries.

Governance Scorecards for both the sole fishery and the oyster and cockle fishery have also been used since the beginning of the project to track progress in key categories as specified in indicator 6 for IR 2 above. The baseline score recorded in 2009 improved significantly for both fisheries in 2010 (evaluated at the end of Year 1 in December 2010).

Accomplishments Year 3 (thru March 31, 2012):

The Sole Fishery and Cockle and Oyster Fishery Co-Management Plans were approved and signed on January 17, 2012. FY 12 targets for indicators 7 and 11 under IR 2 have now been achieved, with 500 TRY members and 310 sole fishermen benefitting. Only the gazetting of the plans for 2 weeks public notice is outstanding. A detailed description of the accomplishment is provided under IR 1 above.

In addition to on-going institutional capacity building support to TRY, DoFish and NASCOM in Year 3 as described under IR 1 above, strengthening of the The Association of Gambian Fisheries Companies (TAGFC) was also planned for Year 3. The President of TAGFC has been participating actively in sole co-management activities and is selected to attend the URI Leadership in Fisheries Management Course in Rhode Island in July 2012.

The Governance Scorecard results for both the sole and the cockle and oyster fisheries continued to improve in 2011 (evaluated at the end of Year 2 in January 2012). Both scorecards are attached in Appendix B and the results are summarized in Table 1 below. It is clear that with the approval of the two co-management plans, First Order Outcomes focusing on commitment and capacity have shown significant improvement. Second Order Outcomes, focusing on changes in institutional, individual and investment behavior are progressing more gradually after an initial leap in Year 1.

Table 1: Governance Scorecard Results

	Sole			Cockles and Oysters		
	2009	2010	2011	2009	2010	2011
First Order Outcomes	14	29	36-37	11	28	33
Second Order Outcomes	14	31	32-37	10-12	27-29	35

An additional perspective on management of the Sole and Oyster fisheries in The Gambia was explored through collaboration with Chris Anderson, a URI Economist (recently moved to the University of Washington) who is developing a Fisheries Performance Indicator tool for The World Bank. The World Bank is interested in testing the tool in the context of developing countries where significant investments in improved fisheries management are being undertaken. USAID/BaNafaa and stakeholders in The Gambia will benefit from the information generated on the impact of project interventions on Output (measuring wealth) and Input (enabling wealth) indicators over time. Because this tool is being applied in more than 25 countries around the world in various fisheries, The Gambia will also benefit from the perspective provided by comparative trends and analyses across countries. Chris Anderson visited The Gambia in January 2012 and provided a preliminary report summarizing the pre-USAID/BaNafaa status of the two fisheries in the diagrams below. The exercise will be repeated in 2 years.

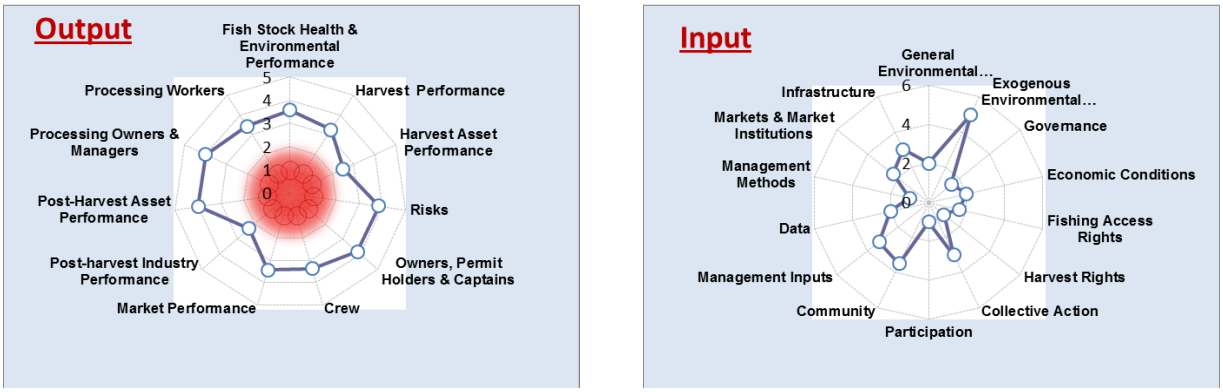


Figure 9: Baseline (retrospective pre-USAID/BaNafaa) Fisheries Performance Indicators for The Gambian artisanal sole fishery

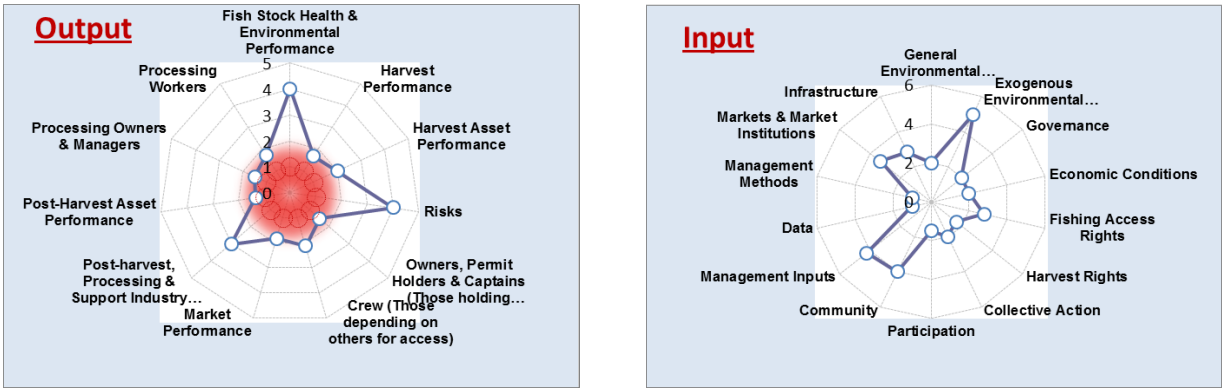


Figure 10: Baseline (retrospective pre-USAID/BaNafaa) Fisheries Performance Indicators for The Gambian oyster fishery.

b. Human Resources Training/Regional Meetings and Exchange Visits:

Degree training for DoFish staff: Another strategy of the *USAID/BaNafaa* Project is to develop the capacity of staff within the Department of Fisheries. One approach is to provide degree training for mid-career staff within DoFish. There is a strong cadre of approximately one dozen mid-career professionals who cannot be advanced through promotion within the civil service system as they lack the appropriate degree qualifications, in spite of the fact that they have ample experience and competencies. This creates a morale problem and is typically a problem for retaining highly skilled people within the Department. Most of these individuals have completed two-year diploma programs, but require a four-year degree to be promoted. Such degrees in fisheries are not available in The Gambia and require training outside the country. Individuals from DoFish with two years of study already completed have been selected to continue degree training to a four year level (i.e., the Project will provide support for an additional two years of education). Degree training at Nigerian universities is very cost effective. Two individuals have been nominated for these degree scholarships, were accepted for admission and began their studies in Year 2 (FY11).

URI Summer Courses: As documented in the TrainNet Table in Section 3.4 below the project has also invested strategically in selecting participants from key government departments and fisheries management organizations to attend Fisheries Leadership and other relevant professional development courses offered by the Fisheries Center and the Coastal Resources Center at URI. Participation in these courses has been a critical factor in building a team of actors from various institutions who work productively together in The Gambia with common goals and approaches.

Regional Meetings and Exchange Visits. As documented throughout this report, regional meetings and exchange visits have been one of the most practical and effective strategies employed by the project to bring innovative approaches for sustainable fisheries management to The Gambia, as well as to share The Gambia's experiences with others.

Accomplishments Year 3 (thru March 31, 2012):

The degree training for DoFish staff was still on-going as of March 31. Both are expected to complete their studies in Year 3, FY12.

PHE workshop in Senegal: One Gambian Participant, Anna Cham, Senior Fisheries Officer in the Department of Fisheries and member of the TRY Association Advisory Board attended this four day training on Population Health and Environment organized by the BALANCED Project in December 2011 in Senegal. The purpose of the training was to build local capacity to design, implement and monitor Integrated PHE approaches that are replicable, sustainable and generate impact on both human and ecosystem health in significant ecological areas where population dynamics pose threats to the flow of ecosystems services/goods vital to human populations.

Sharing the Co-Management experience outside The Gambia: As news of the innovative "firsts" that are happening in sustainable fisheries management in the Gambia spreads, institutional actors involved in the development of the sole and the oyster and cockle co-management plans have increasingly been solicited to share The Gambia's experiences in regional and international forums. Following is a brief list of some of the most recent and significant exchanges, none of which were funded by the USAID/BaNafaa Project (and thus not counted under indicator 8 above), but all of which involve the sharing of results made possible by USAID/BaNafaa assistance.

The Chief of Party and Deputy Chief of Party of the USAID/COMFISH project in Senegal participated in the launch of the Co-Management Plans in The Gambia in January and participated in field visits to a fisheries landing site and the principal fish processing and export company, Atlantic Seafoods.

Ousman Drammeh, USAID/BaNafaa Project Manager presented The Gambia experience at a Marine Stewardship Council Workshop in Senegal organized by WWF-WAMER and the Department of Marine Fisheries of Senegal. MSC has included the Gambia experience in one of its recent publications on certification in developing countries.

Ousman Bojang, the President of GAMFIDA and member of NASCOM has been named an Ambassador for the Prince of Wales' Charities International Sustainability Unit. He attended a workshop in the UK to share The Gambia co-management experience and is featured in one of the initiative's publications in February 2012.

Dr. Kathy Castro of the URI Fisheries Center presented "Fisheries Sustainability in The Gambia: MSC Process as a Framework for the Journey" at a conference organised by the Marine Stewardship Council in Madrid, Spain titled, "**Fishery Certification in Developing and Emerging Economies**" in February 2012. She will also make a presentation on The Gambia's co-management experience at the World Fisheries Conference in Scotland in May.

Dr. Michael Rice of URI gave a presentation of the Shellfish Sanitation Planning work in The Gambia at NOAA's Milford Aquaculture Seminar in Connecticut in March 2012.

Fatou Janha, Executive Director of TRY was sponsored by the Banesto Foundation of Spain through the Association of Small Scale Enterprise and Tourism in The Gambia in November 2011 to attend a training program for Leaders in Social Entrepreneurship at the INSEAD Business School of the World in France. It was attend by 38 participants from 18 countries and will continue to serve as a network for TRY and a forum for sharing the co-management experience. She was also interviewed on Spanish radio.

Dick Day, Peace Corps Regional Director for Africa visited the TRY Center in January. Twelve TRY women attended the meeting and shared the skills and experience they have gained over the last several years with TRY.

TRY has been invited by the U.S. Federal Communications Commission to be one of the lead bloggers on a new blog they are initiating around the theme of information technology for development used by women and girls in developing countries.

The TRY Executive Director and the newly elected TRY President participated in the USAID/COMFISH Gender workshop held in Senegal the week of March 20th. At the workshop, many women from various regions of Senegal exchanged ideas and those who are involved in oysters and cockles have requested an exchange visit with TRY.

The TRY Executive Director also attended a two-day Regional Validation Workshop held by the West African Association for the Development of Artisanal Fisheries (WADAF) in Dakar at the end of March. This was attended by fisheries professionals from Gambia, Senegal, Mali, Guinea, Sierra Leone, Mauritania, and Guinea Bissau. The purpose of the workshop was to identify priorities for the capacity building of professional fisheries organizations for their involvement in fisheries management.

Between these two workshops, Fatou traveled to Saint Louis in Senegal, where she visited processing sites for drying fish managed by hundreds of women. These fish are eventually exported. She learned about the drying process and the women's involvement in export marketing.

TRY was notified in March 2012 that it has been selected as one of the top 25 winners of the UNDP Equator Prize, with a $5,000 award. TRY was selected from 800 applicants. The Executive Director will Travel to Rio+20 in Brazil in June to accept the prize and to participate in sessions with the other winners. TRY is also eligible to be selected as one of the top 10 winners with an award of an additional $15,000. USAID is cited as a key partner of TRY on the Equator Prize website.

c. Assessment of the Cross Border Trade in Sole.

The value chain for sole identified the fact that an unknown quantity of sole is transshipped into Senegal and much of this transshipment is not being fully captured by the DoFish statistics (and distorts Senegal sole capture statistics) and implication on marketing an eco-labeled product is also a concern. Sole is loaded into trucks coming from the Casamance but reported as caught in Senegal and then transshipped to Senegal for eventual processing and export. This illegal trade can have significant impacts on trying to accurately assess landings of sole caught in Gambian

waters as well as have impacts concerning ecolabeling. Ecolabeling may help curtail this trade, but other measure might be identified to bring this illegal trade into the open. Therefore, additional assessment of the cross border trade is needed to fully understand market context and opportunities for improved marketing that benefits more fully Gambian fishermen, processors and exporters. Since cost differences in the two countries have been cited as key reasons for the lack of processing activity in The Gambia and exports to Senegal, the assessment has been designed to also look into the comparative cost structure for processing plants and exports to Europe in the two countries.

Accomplishments Year 3 (thru March 31, 2012):

A lead consultant from Senegal and a secondary consultant from The Gambia were contracted to conduct the study. In addition, three individuals were contracted to collect data at 3 border crossing sites. The draft report was completed in February, a validation meeting of Gambian stakeholders reviewed the report and produced a final report with recommendations for follow-up actions. Although data collection on illegal trade was not successful due to the timing of the study during a period of particularly low movement of product, the study found significant differences between the Gambian and the Senegalese context at all levels in the sole value chain. The differences create an unfavorable competitive environment for The Gambia. The report concluded that the competitiveness, profitability and sustainability of the Gambian fish processing industry depend on the issues of 1) financing, 2) utilities reduction costs, 3) infrastructure improvements, 4) associated industries, 5) the supply of raw materials**,** 6) information on sole trans-shipment, and 7) creation of an interagency Committee. The key recommendation is to draft a cabinet paper to engage discussion of these issues at the highest levels within the Government.

d. Bi-Lateral (Gambia/Senegal) Climate Change Vulnerability Assessment

Climate change impacts present additional challenges for fisheries management — to the ecosystem, coastal communities and fisheries infrastructure. Studies of the WAMER predict that changes in climate will drive changes in the migration and abundance of commercially important fish species, and affect fishing communities, landing sites, and critical estuarine ecosystems. Consideration of climate change is part of the underpinning of an ecosystems-based approach to fisheries management. In Year 2, the project with WWF-WAMER convened a regional workshop in Senegal with a focus on building awareness of climate change issues in fisheries and MPAs and strategies for incorporating these issues into fisheries and marine conservation decision-making. The workshop was attended by representatives from each of the 7 countries of the Commission Sous-Régionale des Pêches (CSRP) that includes Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania, Senegal and Sierra Leone. Objectives of the workshop included:

- Consolidate information on regional climate change initiatives in coastal areas and marine ecosystems
- Assess climate change issues in fishing communities and marine ecosystems and actions taken to date across each of the CSRP countries. Identify similarities of key issues and responses across the countries.

- Identify needs and opportunities for mainstreaming adaptation considerations and actions into national, sub-national and local level strategies and initiatives
- Define a plan of action for follow-up to the workshop

The take home message was that coastal and marine areas are already affected by multiple stressors with climate change becoming a more serious threat when coupled with these other anthropogenic impacts. It was concluded that anticipatory adaptation to accelerated negative environmental changes does not need to wait for specific climate scenarios, but is more reliant on examination of current vulnerabilities and the range of possible no-regret strategies. Workshop proceedings are posted on the CRC website.

In July 2011, the USAID/Ba-Nafaa project received approval for a US$155,440 add-on component for a bilateral fisheries climate change vulnerability assessment of the Saloum Delta and Gambia River estuary area. The assessment is designed to consolidate existing information and collect new data where gaps exist.

Accomplishments Year 3 (thru March 31, 2012):

An interdisciplinary team coordinated by Mat Dia and Arona Soumare of WWF-WAMER was contracted to conduct the vulnerability assessment. The team included experts on marine and wetland ecology and conservation, GIS, inundation projections and mapping, fisheries biology, and community development. USAID's "Adapting to Coastal Climate Change: A Guidebook for Development Planners" was a key reference document. The individual studies and a draft consolidated report were completed in early April. The bi-lateral stakeholder workshop to review the findings, finalize the assessment and to identify priority adaptation measures will take place on April 10-11 in The Gambia. Prioritized climate change adaptation measures will provide the basis for the development of a concept paper and a request for additional funds to implement selected adaptation activities under the USAID/BaNafaa project.

2.3 Intermediate Result 3

Nursery areas and spawning areas for critical life stages of commercially important species and for associated marine turtles and mammals are protected

No	Indicator	FY12 Target	Q1	Q2	Q3	Q4	FY12 Achieved
12	USAID EG 8.1 Hectares in areas of biological significance[4] under improved management: • Hectares covered by the fisheries management plan defined as the range of fishing fleets targeting these species • Oyster fishery estuarine and mangrove areas designated and allocated as community managed zones, including no-take areas	158,332 6000	0 0	121,245 6304			

Progress on Activities Contributing to This Intermediate Result:

a. Sole and Oyster Co-Management Plans and Readiness for MSC Certification

Traditional Ecological Knowledge obtained from the fishers at landing site level and also from community meetings and training workshops as part of the co-management planning process has confirmed that the sole fish come annually from deep waters to shallow waters and into the estuary to spawn, and juveniles tend to stay in shallow waters close to the shore until they are mature enough to go inhabit deep waters. This fact is true for most species and the fishers have asserted that the spawning periods for the majority of marine fish species is between May and October (the onset of the rainy season and the end of the rainy season in The Gambia). The consensus among fishers to declare area closure for all fisheries of 1 nautical mile from the shoreline for 6 months (1st May to 31st October) each year is a management measure that will allow fish to spawn and juvenile fish to grow without being targeted for capture. This management measure is reflected in the sole fishery co-management plan that will be officially launched by the Minister of Fisheries in January 2012. It should also be noted that by-catch

[4] The entire area from the Saloum Delta in Senegal, The Gambia and Casamase rivers, and adjacent marine coastline has been identified as an area of regional bio-diversity significance in the West Africa Marine EcoRegion.

studies for the sole fishery showed that marine turtles and mammals are not at risk from the sole fishery in The Gambia. These studies are posted at http://www.crc.uri.edu/index.php?actid=423 .

In the Oyster and Cockle Co-Management Plan, seasonal closure for oyster harvesting is specified during the spawning season and has been extended for longer than was previously practiced to reduce the take of juvenile oysters. The co-management plan also specifies gear restrictions that are designed to reduce damage to mangroves during the harvesting process. The Shoreline Shellfish Sanitation Planning process, including water quality testing and a comprehensive Shoreline Sanitation Survey for the Tanbi that will be undertaken in Year 3 will provide critical information about pollution hotspots in this protected mangrove ecosystem.

In addition, as reported in Year 2, a 22 page report on Assessment of Cetaceans in the Gambia has been produced by the ICAM project following surveys conducted between January and April 2011. The report describes the project and study area, existing information, monitoring methods, the data collected, interpretation of the data, difficulties encountered during monitoring, evaluation of methods, and recommendations for the assessment. The report concludes that the Bottlenose Dolphins (Tursiops truncates) are currently the most abundantly found species in the river waters. Information from phase 1 and 2 indicate that cetacean sightings occur more often in the coastal waters with a variety of species being sighted. A total of 5 species have been documented: Atlantic Humpback Dolphin (Soura tenszii), Bottleneck Dolphin (Tirsiops truncates), Clymene Dolphin (Stenella clymene), Long-Beaked Common Dolphin (Delphinus capensis) and the Short-Finned Pilot whale (Globicephala macrorhynclus). The objectives of the assessment are to develop and implement a cetacean action plan, and build the capacity of DPWM staff to assess and conserve biodiversity. To achieve these objectives the following actions have been or will be implemented: regular boat-based surveys of coastal waters and the river; coastal beach surveys; data collection of cetacean strandings and by-catch; the evaluation and analysis of baseline data; and the establishment of outreach programs for schools and communities.

Accomplishments Year 3 (thru March 31, 2012):

See accomplishments for the development of the sole and oyster co-management plans under IR 1 above. The FY12 target for indicator 12 under this IR has been achieved with the approval of the co-management plans in January 2012. Below are maps representing the total hectares under improved management. The total hectares for the sole fishery are 121,245, less than the estimated total of 158,332, due to the on-going discussion regarding inclusion of the entire area of mouth of the estuary of The Gambia River. Note that the original total target hectares for sole was revised upwards from 20,000ha at the end of Year 2, when it was evident that the management plan would include a seasonal closure along the entire coast of the Gambia.

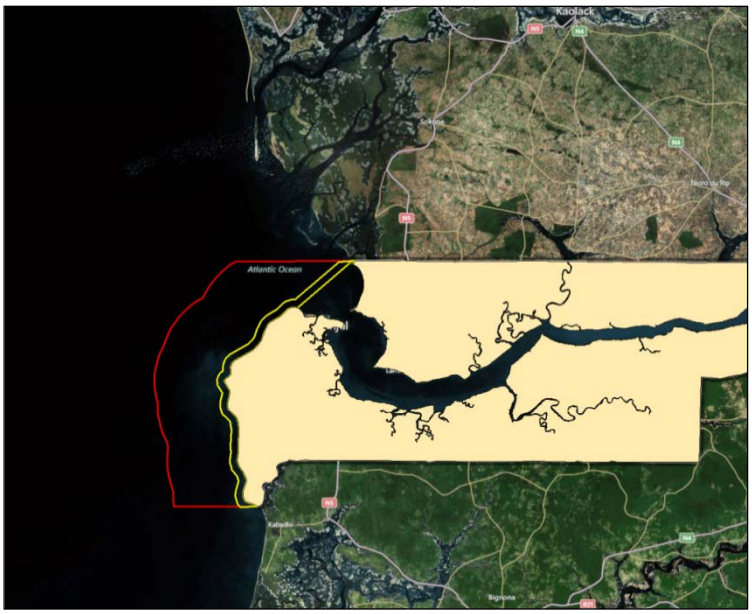


Figure 11: Hectares under improved management for the artisanal sole fishery out to 9nm.

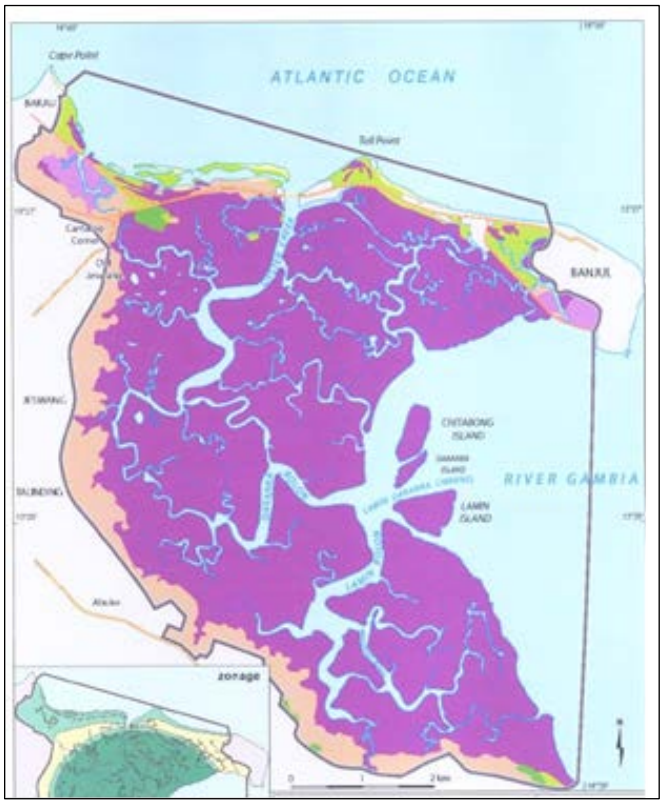


Figure 12: Hectares under improved management for the oyster and cockle fishery in the Tanbi

2.4 Intermediate Result 4

Change unsustainable and destructive marine resource use practices that threaten improved biodiversity conservation in the West Africa Marine Ecoregion.

No	Indicator	FY12 Target	Q1	Q2	Q3	Q4	FY12 Achieved
12	USAID EG 8.1 Hectares in areas of biological significance[5] under improved management: • Hectares covered by the fisheries management plan defined as the range of fishing fleets targeting these species • Oyster fishery estuarine and mangrove areas designated and allocated as community managed zones, including no-take areas	158,332 6000	0 0	121,245 6304			
16	Number of vessels registered/licensed	0	0	0			

Progress on Activities Contributing to This Intermediate Result:

a. Sole and Oyster Co-Management Plans and Readiness for MSC Certification

Community meetings and training workshops have been major activities of the Ba-Nafaa project. At the start of the project, it was discovered that a good number of fishers (particularly in Brufut and Sanyang fish landing sites) were using sole fishing nets with mesh sizes of 36 and 38 mm, well below the legislated 80mm mesh size limit. Because the Department of Fisheries was lacking the means to enforce the regulation, attitudinal change had to come about through awareness creation and sensitization on how harmful this practice can be and how it will affect fishing livelihood security in the near future if fishers continue to put short-term financial gains ahead of their long-term interests by using small mesh size nets that will not sustain the resource base. Two years hence, from Banjul to Kartung, all sole fishers are using fish nets with mesh sizes not less than 80mm. Some are using 84mm and 86 mm mesh size nets. The large mesh size nets do not catch juvenile sole fish. They only catch adult/mature fish, so the threat of catching juvenile sole fish has been completely eliminated by the fishers willingly agreeing to abandon the use of small mesh size nets. When fishers become cognizant that their practices are threatening their future survival, they are motivated to change because of their affinity to the environment and the profession; this is the only profession they know and would like/prefer to be engaged in.

The Ba-Nafaa project has conducted a 12 months (consecutive) participatory by-catch study of the sole fishing net and a catalog of the by-catch species has been produced. The study has shown that the sole fish net does not catch ETP (Endangered, Threatened and Protected) species. In the 12 months of the study, not a single turtle or other threatened species was found in the sole fishing nets in the four major sole fishing landing sites of Brufut, Sanyang, Gunjur and Kartong, where the study was conducted. The use of the recommended mesh size or above has now spread

[5] The entire area from the Saloum Delta in Senegal, The Gambia and Casamase rivers, and adjacent marine coastline has been identified as an area of regional bio-diversity significance in the West Africa Marine EcoRegion (WAMER)

along the coastal area and up the river to Tendaba, the farthest point along the river where sole fish is caught.

In the oyster fishery, the women used to chop down the mangrove roots and take them to the processing sites where the oysters are removed and the roots are dried and used as fuel wood to boil or smoke the oysters. Now they have been sensitized and they know the importance of conserving the mangroves. The ongoing activities of the women on mangrove reforestation confirm that the women now know the importance of the mangroves to the continued availability of oysters and that reforestation and preservation reduce the threat to security of their livelihood.

Artisanal vessels operating along The Gambian Atlantic coast were registered in Year 2 (FY11).

Accomplishments Year 3 (thru March 31, 2012):

The measures discussed above are now institutionalized in the Approved Co-Managements Plans for sole and for oysters and cockles. They stand as models for other sectors, areas and countries in the WAMER and beyond.

3. Project Management

CRC/URI has also now established its own in-country office in The Gambia, primarily to manage the WASH component that began in Year 3, but also to implement directly some of the fisheries work with local partners previously managed under the WWF sub-contract. A WASH Coordinator, Dr. Bamba Banja started on September 1, 2011. An administration and Finance Assistant was recruited and started on November 1, 2011. The WASH Coordinator is supervised by the USAID/BaNafaa Project Manager and provided oversight by the U.S. based USAID/BaNafaa Team Leader.

The WWF National Program Coordinator in The Gambia serves as a senior advisor to the project. Mat Dia was in this position until November 1, 2011. Alagie Manjang on secondment from the Department of Parks and Wildlife is currently interim while WWF is recruiting a permanent replacement.

The Project has benefitted from direct collaboration with Peace Corps volunteers based in Kartong, in Banjul at TRY and in Banjul at the USAID/BaNafaa office. A Gambian student intern Albert Jammeh, who is studying at the University of Cheikh Anta Diop in Dakar spent 2 months in December and January learning and assisting the project on Climate Change activities.

3.1 International Travel

This international travel schedule does not include travel between The Gambia and Senegal, which for planning and management purposes is considered local travel. The following list captures all international travel other than within and between The Gambia and Senegal.

First Quarter Actual

- Kathy Castro, Najih Lazar and Barbara Somers traveled to The Gambia from October 29 to November 7, 2011. In addition to participation in the final stakeholder meeting on the sole co-management plan, they provided technical assistance to the Department of Fisheries for the institutionalization of its role in stock assessment and database management, including assessment of organizational structure, staffing, staff training and planning for an adequate Department of Fisheries budget to support these functions sustainably.

Second Quarter Actual

- Mike Rice: Shellfish Sanitation - January, 2012
- Karen Kent: Management Plans launch event - January 2012.
- Chris Anderson: January 2012 – Sole & Oyster Economic Fisheries Indicators application of World Bank tool in the developing country context.
- Dr. Bamba Banja: to Ghana for the USAID Environmental Compliance Training March 2012.
- Brian Crawford: March 30 – April 1, 2012, monitoring visit add-on from Senegal trip.

Third Quarter Anticipated

- Kathy Castro/Najih Lazar: Bi-lateral Workshop, May 2012
- Karen Kent + Hilary Stevens: April 2012 CC workshop in The Gambia. Karen for WASH site selection validation workshop.
- Chris Parkins: Gillnet study April 2012
- Kim Kaine: Administrative oversight of new URI BaNafaa office and staff. TraiNet support – April 2012.
- Joe DeAlteris: June 2012, stock assessment training and technical assistance for compiling data for MSC application by The Gambia.

3.2 Environmental Monitoring and Compliance

Based on the revised initial environmental evaluation (IEE) approved in 2011 for the project and in accordance with the Year 2 (FY11) Annual Report, monitoring and mitigation schemes are in place to ensure no significant environmental impacts are occurring for those actions identified in the IEE with a negative determination subject to conditions. Key activities being conducted this year that have conditions and that will require monitoring and/or mitigation plans include:

- Fisheries management plans
- Water and sanitation improvements at landing sites

Status on these activities will be included in the annual Environmental Monitoring and Mitigation Report submitted to USAID. Dr. Bamba Banja, USAID/BaNafaa WASH Coordinator, attended the USAID Environmental Compliance Training in Ghana in March and is immediately applying what he learned to the implementation of WASH and other Project activities. Training sessions for partners are scheduled in April.

3.3 Branding

The USAID/BaNafaa Project provides information through many existing channels, including presentations at meetings, conferences, outreach sessions and other forums, 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.

Synopsis of Communication Items Affected by USAID Marking/Branding Regulations (ADS 320/AAPD 05-11)

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
Brochures/posters on environmental issues	USAID logo (cobranded where/as appropriate)	M	Primarily a Gambian audience
Landing or marketing site facility improvements	USAID logo / stickers (cobranded where/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 *(USAID/BaNafaa*) but no USAID identity used	M	Primarily a Gambian audience
CRC Project Office/room within TRY/Gambia office in Banjul	Project sign in English and local dialect name as well *(USAID/BaNafaa*) but no USAID identity used	M	Primarily a Gambian audience
Fisheries management plans		PE	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

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 to date 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	1	31	32	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
Aquaculture training	The Gambia	01/12/2010	02/05/2010	60	0	60	2,696
Training on Entrepreneurship (study tour to Baddibu)	Gambia	03/18/2010	03/19/2010	2	11	13	600
Stock assessment training	The Gambia	03/15/2010	03/22/2010	14	5	19	3,144
Total				***116***	***101***	***217***	***14,508***
April 10 - June 10							
Training on Improved Processing & Packaging	Gambia	30/4/2010	12/4/2010	0	300	300	750
Coastal Adaptation to Climate Change	US	4/6/2010	25/6/2010	2	0	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-	28/6/2010	1	36	37	750
Water Quality Assessment Training Workshop	Gambia	23/6/2010	23/6/2010	18	5	23	100
Total				***32***	***345***	***377***	***32,100***
July 10 - Sept 10							
Fisheries Leadership	US	16/8/2010	3/9/2010	3	1	4	32,000
Biostatistics course	Gambia	09/20/2010	09/27/2010	10	2	12	5,832
Total				***13***	***3***	***16***	***37,832***
GRAND TOTAL YEAR 1				***161***	***449***	***610***	***$84,440***
Oct 10 - Dec 10							
Micro-credit and enterprise development	Gambia	25/10/2010	2/11/2010.	0	250	250	1,290
Total				***0***	***250***	***250***	
Jan 11 - March 11							
Climate Change workshop	Senegal	3/22/2011	3/25/2011	52	8	60	50,900

Training program	*Location*	*Start date*	*End date*	*Participants*			*Estimated Cost*
				Male	**Fem**	**Total**	***US $***
Study tour to Tanzania on res. mgt and livelihood development	Tanzania	2/7/2011	2/12/2011	0	1	1	2,145
Total				***52***	***9***	***61***	***2,145***
CUMULATIVE GRAND TOTAL TO DATE MID YEAR 2				***212***	***708***	***921***	***$137.490***
April 11 - June 11							
Water quality and shellfish sanitation	USA	21/5/2011	5/6/2011	3	0	3	15,910
Fish stock assessment	USA	21/5/2011	12/6//2011	3	2	5	34,387
MPA-PRO Certification Training	Kenya	13/6/2011	17/6/2011	1	0	1	3,000
BS Degree Training – Fisheries technology	Nigeria	15/5/2011	28/8/2012 on going	1	0	1	10,000
Total				***8***	***2***	***10***	***63,297***
July 11 – September 11							
BS Degree Training – Fisheries technology	Nigeria	29/8/2011	On going	1	0	1	10,000
TRY members to FENAGIE	Senegal	09/2011	xx	0	4	4	2,759
Total				***1***	***4***	***5***	***12,759***
CUMULATIVE GRAND TOTAL TO DATE END YEAR 2				***221***	***714***	***936***	***$213,546***
October 11 – March 12							
PHE workshop	Senegal	12/4/2011	12/07/2011	0	1	1	1,174
Training of the Facilitators for WASH Needs Assessment	The Gambia	12/27/2011	12/29/2011	8	2	10	1,128
TRY literacy training	The Gambia	11/2011	On-going	0	30	30	TBD
Shellfish Sanitation Shoreline Survey Training	The Gambia	11/1/12	11/1/12	8	0	8	TBD
USAID Environmental Compliance Training	Ghana	19/3/12	23/3/12	1	0	1	1,811
Stock Assessment	The Gambia	1/20/2012	06/30/2012	2	0	2	TBD
TRY Microfinance training	The Gambia			0			
TRY hygiene/food handling training	The Gambia			0			
Total				***19***	***33***	***52***	***$4,113***

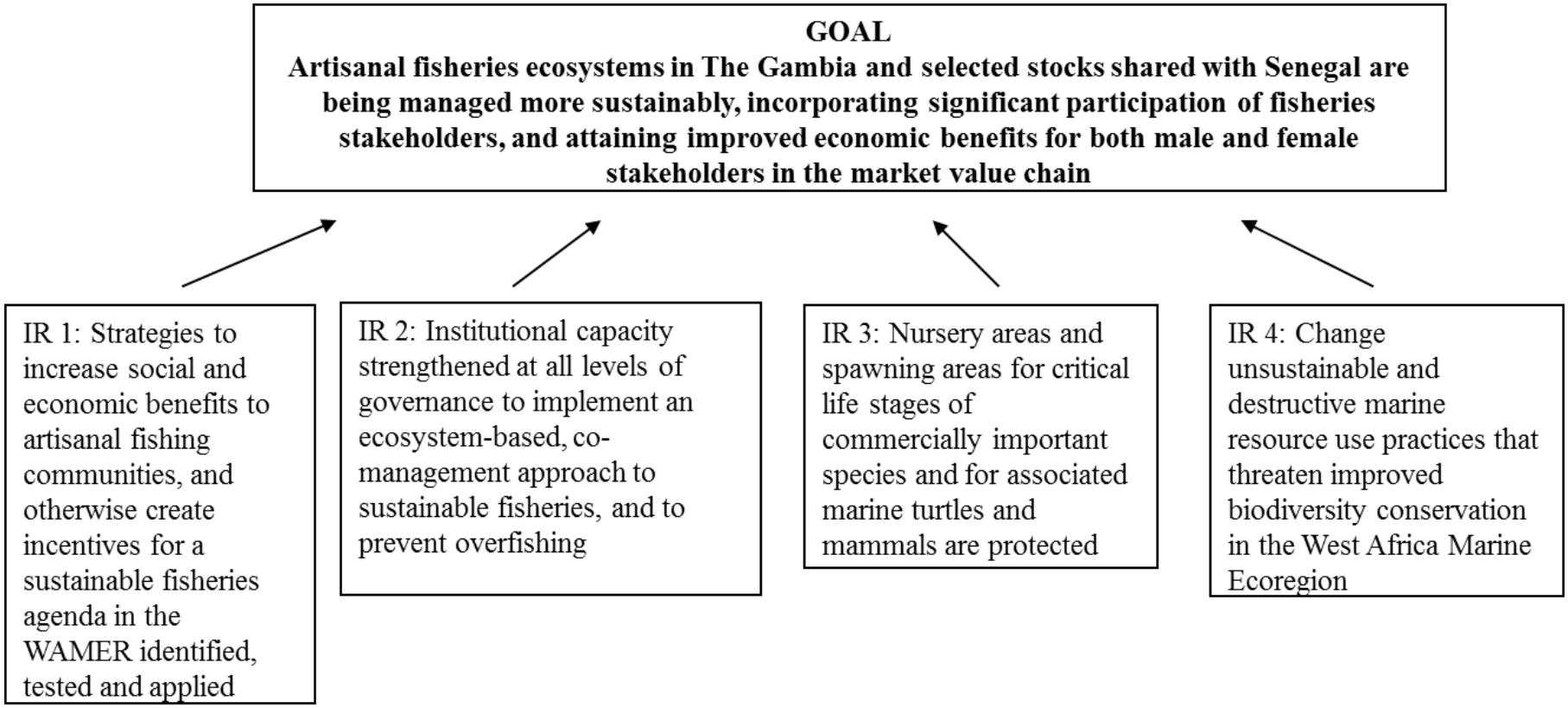
4. Estimated Financial Status

The following table shows a pipeline analysis of actual expenditures in relation to obligations through March 31, 2012.

AMOUNT SUB-OBLIGATED		2,645,995
(total federal outlays as of last SF 425/voucher)		
Expenditures		
Period Covered In Last SF 425	Thru December 31,2011	1,742,111
Actual	January to March 2012	173,873
Encumbered as of March (unliquidated obligations)		168,082
TOTAL EXPENDITURES (Amt on SF 425 + Recent Expenditure)		$2,084,065
BALANCE OF SUB-OBLIGATED FUNDS REMAINING		$561.930

Appendix A. Results Framework & Life-of-Project (LOP) Targets

The Project Results Framework below is organized by Project Goal and IR. The Gambia - Senegal Sustainable Fisheries Project contributes directly to USAID West Africa Regional Office's Environment & Climate Change Response (ROECCR) Results Framework, specifically IRs ROECCR IRs 1 and 3.



	Indicator	Adjusted LOP Targets
IR 1		
1	Number of businesses economically benefiting	125 businesses (gender disaggregated)
2	No persons receiving economic assistance packages (assets, grants, training, etc.) [6]	220 persons
3	Number of people with improved access to loan capital (e.g. benefiting from new or strengthened savings & credit associations)	115 people w/ access to capital (gender disaggregated)
W1	Improved access to water and sanitation facilities	56,000 persons
W2	Number of persons receiving Participatory Hygiene and Sanitation Transformation (PHAST) Training.	280 persons
W3	Number of persons receiving training and outreach messages on hygiene promotion	1000 persons
W4	Community water and sanitation committees established and trained with program assistance	7 committees
IR 2		
4	Number of govt. agencies or management bodies strengthened or created	13
5	USAID EG 8.1 Number of government personnel, community leaders and private sector stakeholders trained in natural 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[7]	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	130 persons (gender disaggregated)
9	Number of workshops/meetings on policy reform for the artisanal fisheries sector held between Senegal and the Gambia	6 events
10	Number of reports documenting transboundary issues and alternative solutions	4 reports

[6] Business income is difficult and costly to measure so a qualitative definition of benefiting will be used. Benefiting defined as reduced costs or increased prices (e.g. reduced fuel wood used in processing, price premium for MSC certified sole), or facility infrastructure improvements, or improved product quality, packaging or labeling, or training and/or certification in HACCP.

[7] Scorecard based on governance indicators in UNEP/GPA Ecosystem Based Management Guide

11	Number of policies laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance.	2
CC 1	Number of climate vulnerability assessments conducted as a result of USG assistance	1
CC 2	Number of stakeholders using climate information in their decision making as a result of USG assistance	30
CC 3	Number of institutions with improved capacity to address climate change issues as a result of USG assistance	8
IR 3 & 4		
12	Hectares in areas of biological significance[8] under improved management: • Hectares covered by the fisheries management plan defined as the range of fishing fleets targeting these species • Oyster fishery estuarine and mangrove areas designated and allocated as community managed zones, including no-take areas	FMP Areas: • Sole = 12nm seaward = 158,332 ha Community managed oyster zones: • Tanbi wetlands 6000 ha
IR 4		
16	Number of vessels registered/licensed[9]	1000 artisanal vessels targeting sole
GOAL		
17	USAID EG 8.1 Hectares under effective mgt (Key biological reference points in the FMPs for, sole, oyster)[10]	No targets set but progress towards BRPs will be tracked.

[8] The entire area from the Saloum Delta in Senegal, The Gambia and Casamase rivers, and adjacent marine coastline has been identified as an area of regional bio-diversity significance in the West Africa Marine EcoRegion (WAMER)

[9] Vessel registration/ licensing is an important precursor of managed access/limited access. However as vessels are unregistered, exact numbers are estimates only.

[10] Criteria for effective management will be evidence of progress towards Biological Reference Points (BRPs) established in the fisheries management plans and to be collected by The Gambia Dept of Fisheries and Fisheries Management Committees.

Appendix B. Governance Scorecards for the oyster fishery.

Subject: **Governance baseline of oyster fishery**
Date: November 12, 2009, December 6, 2010, January 20, 2012
Assessment Team: Ousman Drammeh, Dawda Saine (NAAFO), Dr. Bamba Banja (USAID/BaNafaa WASH), Karen Kent, Fatou Jahna (TRY)
Venue: Conference room, TRY Office

1st order outcomes

Key Questions	0	1	2	3	Rank
Unambiguous Goals (3 Indicators)					
Have management issues been identified and prioritized?	No action to date	Broad issues identified by project team; some stakeholder involvement	Specific issues identified with stakeholders; prioritized with stakeholders	Issues have been identified and prioritized with stakeholders	1 Issues have been broadly identified with women oyster harvesters in a TRY Plan. 3 PRA completed. Management plan is in draft and key issues identified 3 Management Plan is signed and key issues are identified in the Plan.
Do the program's goals define both desired societal and environmental conditions?	No goals defined	Goals are being negotiated with stakeholders but have not been formalized	Desired long-term goals addressed either societal or environmental outcomes	Goals define both desired societal and environmental outcomes	1 Broad goals have been defined and they include both restoration of mangroves and improved economic welfare 3 Goals include environmental conditions at landing sites and welfare 3 Management Plan is signed. Section 4: Management Objectives, includes Biological, Ecological, Social and Economic objectives.
Are such program goals detailed through time bound and quantitative (how much, by when)?	No targets defined	Targets are expressed in non-quantitative terms	Targets specifies either a date or a quantitative measure, but not both	Targets have been defined in quantitative terms (how much, by when)	1 Broad goals have been expressed, but not in quantitative terms 1 Broad goals, not quantified. But, by end of June 2011, management plan goal is approval by government 1 Management Plan signed on January 17, 2012. Goals in the plan not quantified or timebound, but management measures already in practice and quantitative data on some parameters are being regularly collected and will be used in the annual review of progress on management objectives.

Constituencies (3 Indicators)					
Do the user groups who will be affected by the program's actions understand and support its goals, strategies and targets?	Many important user groups are unaware of the program's goals strategies and targets	User groups are unaware of program's goals and targets but the degree of support varies	With a few important exceptions user groups understand and support the program	Relevant user groups understand program goals and targets and actively support them	2 There is a need more sensitization on the overall purpose of the project 3 Nearly all the relevant groups support and understand (one guy and 5 women do not support, Tony) 3 All of the relevant groups support and understand.
Is there public support for the program?	There is little public awareness of the program	Public awareness is incipient	Public support is building up due to public education efforts, positive press coverage, endorsements from comm-unity leaders	Surveys reveal that there is wide public support for the program and its goals and targets	2 Everyone within the Tanbi communities is aware of the oyster program and in support of it. The user group has been on TV. They wear uniforms and gloves when they sell, and are increasingly recognized. People appreciate the effort. People keep buying oysters even with higher price, just to support them. Community leaders and Mayor of KMC are speaking in support. They participated in Trade Fair. President is aware and supports. The user group will go and harvest the President's rice and bring banners. Also did presentation to the Prisons Department 2 Just last week there was a trade fair. At the African Minister's Fisheries Meeting (September 2010) their products were displayed. Support continues to build. No survey has been completed. 2 Press coverage has been frequent. The April 2011 fundraising event and subsequent TV repetition was the most visible. Response from the public through communications to TRY has increased. These include increased demand for product to TRY center from hotels and individuals. No survey has yet been done. At the highest level of Government there is support.

Key Questions	0	1	2	3	Rank
Do the institutions that will assist in implementing the program and/or will be affected by its actions understand and support its agenda?	There is little awareness of the program within institutions that will be important partners during implementation	While pertinent institutions are aware of the program their degree of support is unclear	With few exceptions, pertinent institutions understand and support the program and have publicly endorsed it	Program recognized as important and legitimate by institutions that will be involved in implementing plan of action	1 Public institutions fully recognize and view the program as legitimate (DoF, Wildlife and Parks, Environment, NAAFO). Not linked much with private institutions yet. With future phases of development, that will come. 3 It is also the elected municipalities, elected representatives of Area Council, Councilors, DPWM, Dept of Forestry, Banjul City Council. 3 NEA and Dept. of Water Resources and the National Assembly are also key institutions strongly supporting implementation.
Formal Commitment (3 Indicators)					
Have the program's policies and plan of action been formally approved by the appropriate level of government?	Formal approval process has not been initiated	There is a governmental mandate initiative	Policies and actions are being negotiated with approving authorities	Plan of action and policies have obtained approval required for implementation	0 2 Negotiating with government authorities in planning process 3 Management Plan approved and signed.
Has the government provided the program with the authorities it needs to successfully implement its plan of action?	No government support	Acknowledgement by some leaders of necessary authorities needed	Communities negotiated bet-ween government representatives and responsible institution(s)	Formal commitment (law, decree, or decision) cements legitimacy of program	0 DoF very minimal support to implement DoF plans in the past. Small assistance now. 2 When DoF signs off on Plan, it will be 3 3 Management Plan approved and signed. Will be Gazetted.
Have sufficient financial resources been committed to fully implement its plan of action?	No financial resources committed for implementation of plan of action	Some pledges and commitments, but significant funding gap remains	Adequate short term funding (3-5 years) secured for implement-ation	Sufficient financial resources in place to fully implement program over long term	0 1 Staff are leveraged from agencies to participate, but no committed financial resources 1 No change from 2010.

Institutional Capacity (5 Indicators)					
Does the program possess the human resources to implement its plan of action?	No personnel have been assigned responsibility for program implementation	Staffing for program implementation is inadequate	Staffing is adequate in some institutions but not in other	Sufficient human resources are in place to fully implement the program	0 Only voluntary staff 1 Fatou is full-time but she needs help for administrative and financial accounting 2 While TRY does not yet have sustainable funding for adequate staffing, government institutions generally have adequate human resources to effectively support their role in the Management Plan.
Has the institutions responsible for program implementation demonstrated their capacity to implement its plan of action	Institutional capacity necessary to implement program is not present	Institutional capacity to implement program is marginal	In some key institutions institutional capacity is adequate but there are important weaknesses in others	Sufficient institutional capacity is present in institutions with responsibilities for implementing program	1 2 Some agencies still are deficient in oyster knowledge, water quality, oyster biology. Next year 2 guys will be going to RI for water quality training (DoF and one from Water Quality lab) 2 Capacity has increased but still not sufficient. Section 6.4 of the Management Plan defines the institutions involved in the Tanbi Advisory Committee. Also, Sanitary shoreline survey work is still under development, involving multiple government institutions.

Key Questions	0	1	2	3	Rank
Have the institutions responsible for the program implementation demonstrated the ability to practice adaptive management?	No evidence of adaptive management	Practice of adaptive management is incipient and is being expressed as minor adjustments to operational procedures	Important institutions engages in periodic self assessments and have modified their behavior based on experience and learning	Program as a whole has demonstrated its ability to learn and adapt by modifying important targets and/or practices	1 Still a new concept 2 Study tour to Sine Saloume and fisheries institute at URI with Gambian participants. Cutting of mangroves by harvesters is not done. That is significant behavior change. Also, they are preserving oysters in jars following visit to Senegal. And, they have extended closed period from 6 to 8 months. Parks and Wildlife was trying stick culture before but ran into problems not related to the technology. Since then, no self assessment. Qualify this ranking as a 2 for TRY. 2 As for 2011, except now the Management Plan is approved and officially documents the adaptive management procedures that will continue to be used going forward. (i.e., annual reviews and audits as well as research priorities).
Is the program structured as a decentralized planning and decision making system?	Power and responsibility are concentrated at one level in governance system	Program provides for some responsibility and initiative at various levels	Decision making and responsibility is decentralized but there are significant coordination issues	Program successfully integrates top-down and bottom-up initiative; it is structured as a decentralized system without sacrificing efficiency	0 Only bottom up. 2 TRY is decentralized but there is higher level engagement, although coordination remains. 3 But improving efficiency is still on-going.
Have important actions and policies been successfully tested at pilot scale?	No pilot programs have been initiated	Pilot programs are underway to assess viability of actions and policies	Pilot programs are completed and outcomes have shaped actions and policies	Action plans and policies have been successfully tested at pilot level	1 1 Pilot actions are still underway (water quality testing, aquaculture) 2 Aquaculture racks and mangrove planting are 2 examples of pilot activities that are completed and pursuit of further action is concretely being implemented. Water quality testing is also being continued and improved

					(DO and Bond road added) and shellfish sanitation planning is now a priority action in which all actors are engaged. Some pilot activities are on-going (aquaculture).
TOTAL					11 28 33

2nd order outcomes

Key Questions	0	1	2	3	Rank
Changes in the Behavior of Institutions (7 Indicators)					
Are the implementing institutions collaborating effectively to implement the program?	No action to date	Broad issues identified by project team; some stakeholder involvement	Some specific issues identified with stakeholders; prioritized with stakeholders	Issues have been identified and prioritized with stakeholders	1 2 3
Are program policies, procedures and regulations being enforced?	No goals defined	Goals are being negotiated with stakeholders but have not been formalized	Desired long-term goals addressed either societal or environmental outcomes	Goals define both desired societal and environmental outcomes	1 1 When oyster management plan is approved, the goals will be formalized 3 Goals define both desired social and environmental outcomes, but enforcement is not yet underway as plan is just approved in January 2012.
Are conflict mediation methods being effectively applied?	No investments in conflict resolution	Attempts to practice conflict resolution; the results are uneven	Methods in place, usually applied effectively	Conflict mediation skills are high and are consistently producing positive results	1 There have been conflicts and meetings to resolve. Results uneven 2 Local conflict resolution is very effective 3 TRY has already experienced 2 or 3 examples of conflicts that have been effectively resolved. In particular keeping resolution of conflict at the level of TRY women has been effectively avoiding escalation of conflicts to a more complex and contentious level.
Are private-public partnerships functional and generating desired results?	No private-public partnerships	Some partnership exists, but not generating desired results	Public and private sector partners work successfully, and often generate positive results	Public-private relationships are robust and consistently generate positive results	0 Hotels have expressed interest in supply of oysters. 2 Hotels could ask for oysters once the water quality assessment is complete to show that they are safe for consumption. If TRY is considered 'private' then partnership between TRY and NEA, DoF, Ba Nafaa, Parks and Wildlife and Water

					Quality Monitoring is generating positive results 2 Same as 2011, only that the Co-Management Plan is now approved and formalizes the TRY/Govt. partnership.
Is the program practicing adaptive management?	Adaptive management not practiced	Minor attempts to practice adaptive management are being made, but with limited success	Adaptive management has brought some significant adjustments to program	Adaptive management fully institutionalized at all program levels	1 2 2 Same as 2011, only that the Co-Management Plan is now approved and formalizes the TRY/Govt. partnership.

Key Questions	0	1	2	3	Rank
Is support within the political structure at a national level being maintained?	Political support is weak or non-existent	Political leaders recognize program; public statements in support are rare	Political leaders occasionally speak favorably of program in general terms	Political support is strong, well informed and frequently expressed	1 2 3
Is an appropriate set of indicators being monitored to document progress towards the program's goals and targets?	Progress indicators have not been selected	Few progress indicators identified, but monitoring is uneven	Full suite of progress indicators have been selected, but monitoring is intermittent	Full suite of social and environmental indicators have been selected and are being consistently monitored to asses progress	0 1 Ba Nafaa has indicators, but not at the level of TRY or as part of management plan. There are no indicators in the Management Plan right now, but there should be. TRY does water quality monitoring as a beneficiary and tracks microcredit. 1 Comprehensive set of indicators for documenting the extent to which management measures identified in the plan are achieved still needs to be developed.
Changes in Behavior of Individuals, Groups and Businesses (6 Indicators)					
Have good practices called for by the program been adopted by target groups?	Good practices not adopted by target groups	Some good practices are sometimes followed	Some good practices are consistently practiced, but others are not	All program's good practices are being applied by target groups	1 2 No take practices are followed well. Aquaculture practices are uneven. Many good practices are followed. 2 Many good practices for hygiene and handling, for the management measures in the approved plan are consistently practiced, but some, especially hygiene and weights and measures are still not consistent.
Are destructive forms of resource use being reduced?	Destructive uses of concern to the program continue unabated	Resources users aware of destructive practices; effort to change behavior are incipient	With some important exceptions, user groups have ceased destructive practices of concern to program	Destructive resource uses have been eliminated	0-1 2 Cutting of mangroves has been stopped. Some harvesting of juveniles still occurring. 2 Awareness and action is

					higher (i.e., mangrove restoration), but not yet level 3.
Are conflicts among user groups being reduced?	User conflicts are widespread and have not diminished	Number and severity of user conflicts appears to be declining	Decline in important user conflicts has been documented	Major user conflicts of concern to program have been eliminated	1 2 Decline has been noted and documented. 2 In a stronger position than 2011 with additional conflicts resolved and the systems tested with positive results. Potential for future conflicts also reduced.
Are stakeholder and public participation shaping the implementation process?	Participation is negligible	Stakeholders are generally supportive of program, but are not contributing directly to its implem-entation	Some important stakeholders are contributing actively to program implementation	Stakeholders and public are actively engaged in implementing program	1-2 2-3 TRY members are contributing actively, some other stakeholders are contributing/active 3

Key Questions	0	1	2	3	Rank
Is there public support for the implementation of the program?	No awareness of the program and no public support	Public is little aware of the program, and is not actively supporting it	Civic leaders speak positive-ly about program; public support is increasing	Public is well informed and expresses its support for program	2 2-3 Public is more aware and increasingly supportive. A trade fair with all government officials showed strong support and interest. 3 Public is more aware and increasingly supportive.
Is the program's system of penalties and incentives proving to be effective?	No program incentives or penalties	Penalties and incentives exist, but they are not having a discernable effect on target groups	Some penalties and incentives are proving effective, but others are not	System of penalties and incentives is working well and produces desired results	0 1 These would be the by-laws that are in the management plan. But, the plan is not adopted officially yet. For microfinance, the fine for breaking a box is being implemented. 2 Management Plans just signed in January 2012. Effects of penalty system still to be seen, though some positive results are already evident.
Changes in Investments (4 Indicators)					
Are taxes, fees and other revenue generating mechanisms contributing to the financial basis of the program?	Program does not have mechanisms for sustained funding	Some sources of sustained funding in place, but they cover a small proportion of program's recurring costs	Significant sustained funding sources are in place, but long term economic viability remains uncertain	Program receives adequate long term government al funding	0 A small amount of money from payment for boots goes back to TRY 1 Revolving loan for microfinance can be considered sustained if successful 1 Microfinance program is still largely a financial training exercise. Interest rates are not sufficient to cover running costs of the program. TRY membership fees were one time and have not yet been instituted as an annual fee as now planned. Sales revenues are being pursued as a sustaining source of revenue.
Are sufficient additional financial resources being committed by government to sustain the effective implementation	No recurring governmental resources committed	Some sustained financial investment by government had been secured but significant funding gap	Governmental funding for immediate needs is adequate, but program's long term eco-nomic viability remains	Program receives adequate long term government al funding	0 1 There are hopes and letters are being sent to organizations to raise resources. Women's Bureau donated money for microfinance. Other agencies have supported training. Gambian government

of the program?		remains	uncertain		support that is "recurring" is not there. Primary financial resources have come from USAID project. GEF small grants proposal is being submitted. 1 Women's Bureau "donation" was actually a loan. GEF grant awarded. 17 scholarships for children of TRY members.
Are the necessary investments in infrastructure being made?	No investments in infrastructure made	Investments minimal; necessary infrastructure missing or inadequate	Infrastructure in place, but maintenance is inadequate	Infrastructure required by program is in place and well maintained	0 1 TRY office was built. Some other investments by government as well. 1 TRY is temporarily renting on premises. Improvements were made by the landlord from the rent. Application to the Govt. for land for their permanent center has received a response with request for documentation. TRY is gathering building plan and funding information to submit.
Are the necessary investments being made to strengthen institutional capacity?	No investment in institutional capacity	Investments are minimal; institutional capacity needs strengthening	Institutional capacity is currently sufficient, but will need additional investments in near future	Institutional capacity is strong and routinely strengthened as needs develop	0 1 1 Small enterprise and microfinance training, TZ study visit. Dakar Fenagie exchange visit. Business Plan developed. Bannesto Foundation leadership training – France, attachment of a PCV.
Total					10-12 27-29 35

Appendix C. Governance Scorecards for the sole fishery.

Subject: **Governance retrospective baseline, first and second and year progress of sole fishery**
Date: 1.) retrospective, December 2009, 2.) December 7, 2010, 3.) January 31, 2012.
Assessment Team: Ousman Drammeh, Gibril Gabbis, Dawda Saine (NASCOM), Ousman Bojang (NASCOM), Dr. Bamba Banja, Ebrima Yarboe (NASCOM), Mayoro Gaye (NASCOM), Elliman Sarr (NASCOM). Ousman Jobe (DoFish) was not able to attend. He was debriefed later by Ousman Drammeh (BaNafaa Project Manager).
Venue: _WWF USAID/BaNaffa Office__

1st order outcomes

Key Questions	0	1	2	3	Rank
Unambiguous Goals (3 Indicators)					
Have management issues been identified and prioritized?	No action to date	Broad issues identified by project team; some stakeholder involvement	Specific issues identified with stakeholders; prioritized with stakeholders	Issues have been identified and prioritized with stakeholders	1 3 Management planning for sole fish and workshops, community meetings have identified and prioritized stakeholders 3 As reflected in the Sole Fishery Co-Management Plan
Do the program's goals define both desired societal and environmental conditions?	No goals defined	Goals are being negotiated with stakeholders but have not been formalized	Desired long-term goals addressed either societal or environmental outcomes	Goals define both desired societal and environmental outcomes	1 2 Focus has been predominantly on fish stocks and management, not welfare, equity and economic issues 3 As reflected in the Sole Fishery Co-Management Plan Management Objectives
Are such program goals detailed through time bound and quantitative (how much, by when)?	No targets defined	Targets are expressed in non-quantitative terms	Targets specifies either a date or a quantitative measure, but not both	Targets have been defined in quantitative terms (how much, by when)	1 There was a target to achieve MSC certification 2 Time bound target for management plan completion. Plan may have other targets based on stock assessment and licensing. 3 Co-Management Plan approved & signed on 17th

					Jan. 2012. Will be Gazetted shortly. Management objectives in the plan are not quantitative and timebound.
Constituencies (3 Indicators)					
Do the user groups who will be affected by the program's actions understand and support its goals, strategies and targets?	Many important user groups are unaware of the program's goals strategies and targets	Some user groups are unaware of program's goals and targets but the degree of support varies	With a few important exceptions user groups understand and support the program	Relevant user groups understand program goals and targets and actively support them	1 At this time, communities didn't even know about the fisheries Act. 3 With community meetings and workshops, the level of understanding and support increased 3 NASCOM engaged in outreach activities to sensitize LACOMS on the co-management plan and the powers given to LACOMS and NASCOM.
Is there public support for the program?	There is little public awareness of the program	Public awareness is incipient	Public support is building up due to public education efforts, positive press coverage, endorsements from community leaders	Surveys reveal that there is wide public support for the program and its goals and targets	1 2 2-3 No surveys conducted but there appear to be public support for USAID/BaNafaa, the co-management plan and the prospects of an Eco-label.

Key Questions	0	1	2	3	Rank
Do the institutions that will assist in implementing the program and/or will be affected by its actions understand and support its agenda?	There is little awareness of the program within institutions that will be important partners during implementation	While pertinent institutions are aware of the program their degree of support is unclear	With few exceptions, pertinent institutions understand and support the program and have publicly endorsed it	Program recognized as important and legitimate by institutions that will be involved in implementing plan of action	0-1 3 3 The signature of the sole co-management plan by the govt. and NASCOM is proof of understanding of and support by all.
Formal Commitment (3 Indicators)					
Have the program's policies and plan of action been formally approved by the appropriate level of government?	Formal approval process has not been initiated	There is a governmental mandate initiative	Policies and actions are being negotiated with approving authorities	Plan of action and policies have obtained approval required for implementation	1 DoF gave progam mandate for partnering with USAID project on management planning 2 3 Signature of co-management plan.
Has the government provided the program with the authorities it needs to successfully implement its plan of action?	No government support	Acknowledgement by some leaders of necessary authorities needed	Communities negotiated between government representatives and responsible institution(s)	Formal commitment (law, decree, or decision) cements legitimacy of program	3 The CFCs have authority and Fisheries Act 2007 provided the legal basis for co-management 3 3
Have sufficient financial resources been committed to fully implement its plan of action?	No financial resources committed for implementation of plan of action	Some pledges and commitments, but significant funding gap remains	Adequate short term funding (3-5 years) secured for implementation	Sufficient financial resources in place to fully implement program over long term	1 2 As consequence of Ba Nafaa in partnership with DoF. 2 Short term financial support provided by USAID/BaNafaa. No Govt. financial support yet.
Institutional Capacity (5 Indicators)					
Does the program possess the human resources to implement its plan of action?	No personnel have been assigned responsibility for program implementation	Staffing for program implementation is inadequate	Staffing is adequate in some institutions but not in others	Sufficient human resources are in place to fully implement the program	1 1 DoF has the human resources, but not the level of human resource capacity needed. By training, mentoring and workshops, the program seeks to increase human resource capacity. CFCs also are not adequate still in staffing/human resource capacity. Nafoo capacity of human resource good now, but not enough staff

					2 Capacity in stock assessment being built at DoFish. Still inadequate at DoFish.
Has the institutions responsible for program implementation demonstrated their capacity to implement its plan of action	Institutional capacity necessary to implement program is not present	Institutional capacity to implement program is marginal	In some key institutions institutional capacity is adequate but there are important weaknesses in others	Sufficient institutional capacity is present in institutions with responsibilities for implementing program	1 2 2 LACOMS need strengthening. DoFish statistics unit is still inadequate in terms of qualified staff. Extension services need improvement.
Key Questions	0	1	2	3	Rank
Have the institutions responsible for the program implementation demonstrated the ability to practice adaptive management?	No evidence of adaptive management	Practice of adaptive management is incipient and is being expressed as minor adjustments to operational procedures	Important institutions engages in periodic self assessments and have modified their behavior based on experience and learning	Program as a whole has demonstrated its ability to learn and adapt by modifying important targets and/or practices	0 1 2 Govt. institutions, NGOs and local authorities and fisher communities supported the process and the practices developed in the co-management plan and are committed to implementation of the plan.
Is the program structured as a decentralized planning and decision making system?	Power and responsibility are concentrated at one level in governance system	Program provides for some responsibility and initiative at various levels	Decision making and responsibility is decentralized but there are significant coordination issues	Program successfully integrates top-down and bottom-up initiative; it is structured as a decentralized system without sacrificing efficiency	1 2 3 Program is decentralized, top-down and bottom up approaches successfully integrated, but implementation of co-management plan will show if efficiency will be sacrificed.
Have important actions and policies been successfully tested at pilot scale?	No pilot programs have been initiated	Pilot programs are underway to assess viability of actions and policies	Pilot programs are completed and outcomes have shaped actions and policies	Action plans and policies have been successfully tested at pilot level	0 1 2 The implementation of the co-management plan will show the success.
TOTAL					14 29 36-37

2nd order outcomes

Key Questions	0	1	2	3	Rank
Changes in the Behavior of Institutions (7 Indicators)					
Are the implementing institutions collaborating effectively to implement the program?	No action to date	Broad issues identified by project team; some stakeholder involvement	Some specific issues identified with stakeholders; prioritized with stakeholders	Issues have been identified and prioritized with stakeholders	1 3 3 All stakeholders committed to implement the co-management plan
Are program policies, procedures and regulations being enforced?	No goals defined	Goals are being negotiated with stakeholders but have not been formalized	Desired long-term goals addressed either societal or environmental outcomes	Goals define both desired societal and environmental outcomes	1 Little stakeholder involvement in drawing up the Fisheries Plan 3 DoF has a Fisheries Plan and with project, all stakeholders are involved 3 All stakeholders participated in the preparation of co-management plan. Enforcement is still a problem.
Are conflict mediation methods being effectively applied?	No investments in conflict resolution	Attempts to practice conflict resolution; the results are uneven	Methods in place, usually applied effectively	Conflict mediation skills are high and are consistently producing positive results	1 Conflicts resolved at community level at CFCs (e.g. problem with mobile gear and static gear) 2 2 Traditional methods have always been effectively applied with positive results
Are private-public partnerships functional and generating desired results?	No private-public partnerships	Some partnership exists, but not generating desired results	Public and private sector partners work successfully, and often generate positive results	Public-private relationships are robust and consistently generate positive results	1 2 2 There are noticeable improvements with positive results. However, TAGFC is still not effective/functional
Is the program practicing adaptive management?	Adaptive management not practiced	Minor attempts to practice adaptive management are being	Adaptive management has brought some significant adjustments to program	Adaptive management fully institutionalized at all program levels	0 1 1-2 The consensus among fishers to adopt mesh

		made, but with limited success			sizes above what has been regulated and other management measures (closure 1nm from shore)
Is support within the political structure at a national level being maintained?	Political support is weak or non-existent	Political leaders recognize program; public statements in support are rare	Political leaders occasionally speak favorably of program in general terms	Political support is strong, well informed and frequently expressed	0 1 3 The approval and signature of the co-management plan is a reflection of strong political support and the gazetting of the plan is the strongest expression (to date not yet done due to 2 changes of Minister of Fisheries)
Is an appropriate set of indicators being monitored to document progress towards the program's goals and targets?	Progress indicators have not been selected	Few progress indicators identified, but monitoring is uneven	Full suite of progress indicators have been selected, but monitoring is intermittent	Full suite of social and environmental indicators have been selected and are being consistently monitored to asses progress	0 Fisheries collect catch data but not using it to population size and resource management 1 Stock assessment monitoring is conducted with intent to make management decisions (on number of licenses, closed areas, etc.) 1-2 Stock assessment training in progress, fishing canoes registered, co-management plan approved and signed but not yet gazetted for implementation.
Changes in Behavior of Individuals, Groups and Businesses (6 Indicators)					
Have good practices called for by the program been adopted by target groups?	Good practices not adopted by target groups	Some good practices are sometimes followed	Some good practices are consistently practiced, but others are not	All program's good practices are being applied by target groups	1 In Kartof (near Casamance) they decided by themselves to use mesh sizes not smaller than 42 in order to not catch juveniles. Some use from 36-42. 40 is legal size in management plan. 2 2-3

					All fishers are using 42mm (=84mm) mesh size or above. Fishers and CFC management committees are committed to co-management plan.
Are destructive forms of resource use being reduced?	Destructive uses of concern to the program continue unabated	Resources users aware of destructive practices; effort to change behavior are incipient	With some important exceptions, user groups have ceased destructive practices of concern to program	Destructive resource uses have been eliminated	1 2 2 Noticeable changes but some fishers are still using destructive gear and small mesh nets particularly in the pelagic fishery
Are conflicts among user groups being reduced?	User conflicts are widespread and have not diminished	Number and severity of user conflicts appears to be declining	Decline in important user conflicts has been documented	Major user conflicts of concern to program have been eliminated	1 2 2-3 Major conflicts are less frequent
Are stakeholder and public participation shaping the implementation process?	Participation is negligible	Stakeholders are generally supportive of program, but are not contributing directly to its implem-entation	Some important stakeholders are contributing actively to program implementation	Stakeholders and public are actively engaged in implementing program	1 2 2-3 All stakeholders approve the co-management plan/program. Will the plan be implemented successfully – we will see.

Key Questions	0	1	2	3	Rank
Is there public support for the implementation of the program?	No awareness of the program and no public support	Public is little aware of the program, and is not actively supporting it	Civic leaders speak positively about program; public support is increasing	Public is well informed and expresses its support for program	1 2 3 There is public awareness and support for the program
Is the program's system of penalties and incentives proving to be effective?	No program incentives or penalties	Penalties and incentives exist, but they are not having a discernable effect on target groups	Some penalties and incentives are proving effective, but others are not	System of penalties and incentives is working well and produces desired results	1 2 If talking about multiple species that sole and high value fishermen catch 2
Changes in Investments (4 Indicators)					
Are taxes, fees and other revenue generating mechanisms contributing to the financial basis of the program?	Program does not have mechanisms for sustained funding	Some sources of sustained funding in place, but they cover a small proportion of program's recurring costs	Significant sustained funding sources are in place, but long term economic viability remains uncertain	Program receives adequate long term governmental funding	1 2 2
Are sufficient additional financial resources being committed by government to sustain the effective implementation of the program?	No recurring governmental resources committed	Some sustained financial investment by government had been secured but significant funding gap remains	Governmental funding for immediate needs is adequate, but program's long term economic viability remains uncertain	Program receives adequate long term governmental funding	1 1 1
Are the necessary investments in infrastructure being made?	No investments in infrastructure made	Investments minimal; necessary infrastructure missing or inadequate	Infrastructure in place, but maintenance is inadequate	Infrastructure required by program is in place and well maintained	1 2 Birkama fish market was completed this year 2
Are the necessary investments being made to strengthen institutional capacity?	No investment in institutional capacity	Investments are minimal; institutional capacity needs strengthening	Institutional capacity is currently sufficient, but will need additional investments in near future	Institutional capacity is strong and routinely strengthened as needs develop	1 1 1
Total					14 31 32-37