Gambia-Senegal Sustainable Fisheries Project

USAID/BaNafaa

Year 3: First Quarter Report

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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 quarter of Year 3 (October 1 – December 31, 2011)

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.

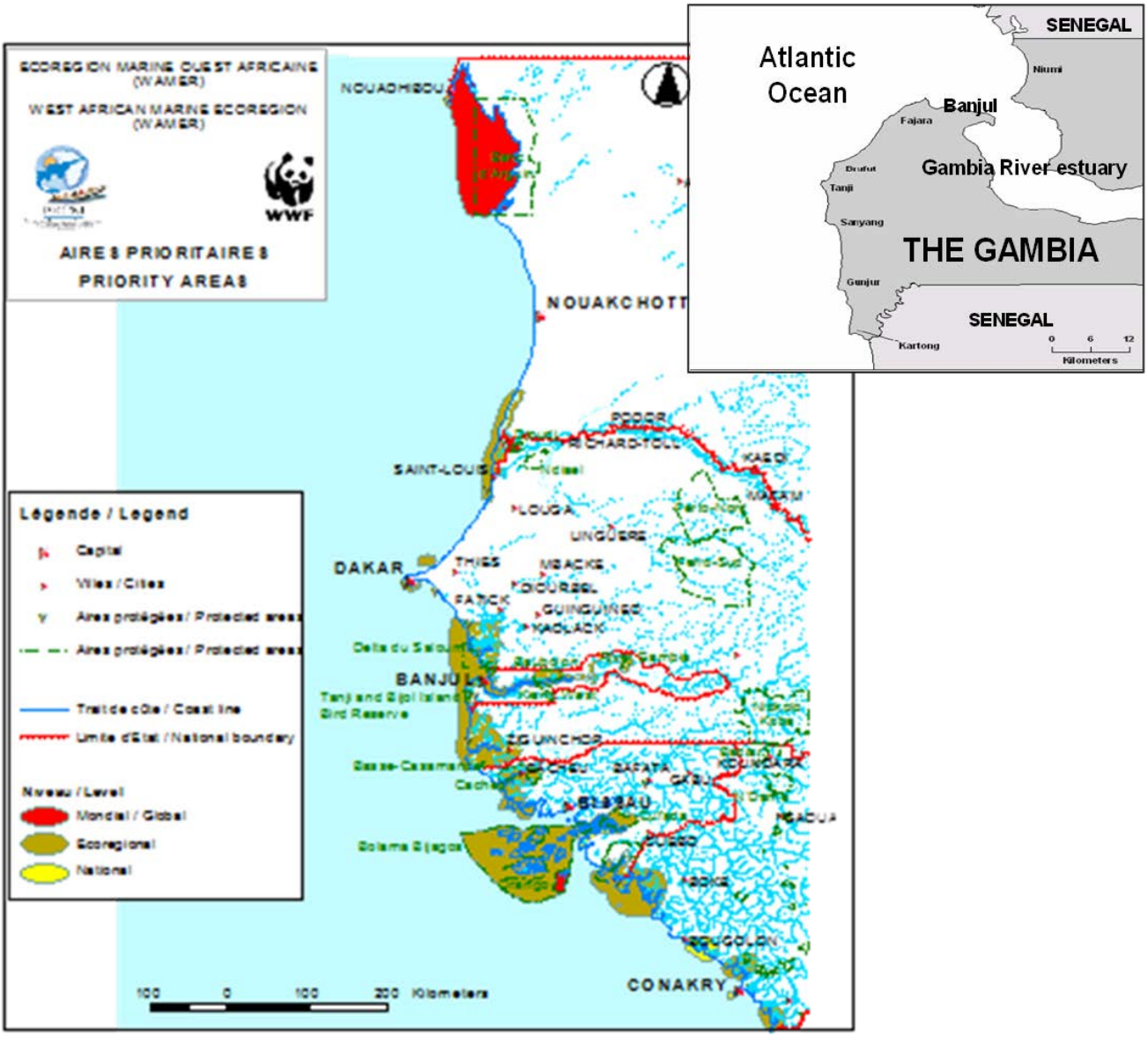


Figure 1: Areas of Biodiversity Significance in the WAMER and The Gambia River Estuary and Atlantic Coast

1.4 Rationale for Piloting Regional Demonstration Activities inThe 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 Quarter 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				
2	No persons receiving econ. assistance packages (grants, training, etc.)	260	150				
3	Number of people with improved access to loan capital	250	150				
W1	Improved access to water and sanitation facilities	0	0				
W2	Number of persons receiving Participatory Hygiene and Sanitation Transformation (PHAST) Training.	280	0				
W3	Number of persons receiving training and outreach messages on hygiene promotion	1000	0				
W4	Community water and sanitation committees established and trained with program assistance	2	0				

Progress on Activities Contributing to This Intermediate Result:

Project activities have contributed significantly and directly to identifying, testing and applying strategies to increase social and economic benefits to artisanal fishing communities and otherwise create incentives for a sustainable fisheries agenda in the WAMER. The results of these strategies 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 the indicators for this IR, are achieving and exceeding targets specified in the Project Design and are on track to achieve Year 3 (FY12) targets. 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. 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 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 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. One of the key activities to achieve certification is USAID/BaNafaa's support for the development of a Sole Fishery Co-Management Plan. In Years 1 and 2, the USAID/BaNafaa project entered into a Memorandum of Understanding (MOU) with MSC to assist the Gambian stakeholders address the deficiencies outlined in the MSC pre-audit report.

The Project 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 available at http://www.crc.uri.edu/index.php?actid=423 . As a result, the organizational framework for fisheries co-management has greatly improved over the last 2 years. The fishing communities are better organized with functional committees at local and national levels working to serve their collective interests. The sole fishers operating along The Gambia River estuary have been attending meetings and training workshops, and a representative of the fishers of Tenbada is a member of the Executive Committee of NASCOM (National Sole Fishery Co-Management Committee). Staff of the Department of Fisheries have been involved in all processes since the onset. 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 and be ready for approval at this time. Progress towards MSC certification, which is expected to happen later in Year 3 or in Year 4 of the project (FY12) 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.

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 will have a greater say 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.

Maintaining export markets and whatever benefits result (either in terms of increased markets and income or in terms of reduced vulnerability to loss of markets and income) would clearly be linked to maintaining MSC Certification (i.e., a sustainable fishery) and one of the principal mechanisms for that is the Co-Management Plan, which by its regulatory impact provides for an increased decision-making role (and thus incentive) for artisanal fishing communities to participate. It also increases the likelihood that the interests of artisanal fisherfolk are more strongly balanced against the interests of buying agents and processing plants than would otherwise be the case.

Accomplishments Year 3 Quarter 1:

Approval of the Sole Fishery Co-Management Plan: Approval of the sole co-management plan and the signing ceremony was delayed until January 17, 2012 due to delays resulting from the Presidential election at the end of November 2011 and the need to ensure that all stakeholders had a final briefing and opportunity to provide feedback on the latest version. The following related activities were conducted this quarter:

- Stakeholder Meeting on November 2, 2011. Seventy-five (75) participants from all stakeholder groups reviewed the final plan and provided final comments. Kathy Castro of URI/Fisheries Center was in The Gambia for this meeting. Following the meeting, final revisions were made to the plan. One of the revisions was to include more specific language on the need to consider climate change impacts and adaptation as a priority area of future research.
- A meeting of The Advisory Committee to the Department of Fisheries was then held to get endorsement of the final version of the Plan. 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.

Support for implementation of the Sole Co-Management Plan: The University of Rhode Island Fisheries Center technical specialists Kathy Castro, Barbara Somers and Najih Lazar traveled to The Gambia from October 29 to November 7, 2011. 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. Staff were identified to begin on-line stock assessment training and to work on the database with distance support from URI.

Success Story

Consumers in Europe contribute to the Development of Sustainably Sourced Gambian Sole

For many developing countries, the lack of capacity to manage exposure to export market demand has been a key factor in the unsustainable and destructive exploitation of the natural resource base, and of the economically disadvantaged communities who depend on those resources.

In The Gambia's case, fisherfolk, fisher associations, processors, exporters, the consumer in Europe, the Marine Stewardship Council and the government of The Gambia are committed to reversing this paradigm by developing a sole fishery that is sustainably co-managed by the artisanal fishing communities whose livelihoods depend on it. USAID assistance through the USAID/BaNafaa Project implemented by the University of Rhode Island in partnership with WWF-WAMPO has supported this process since 2009. Under these conditions, the export market becomes a significant opportunity.

In December, 2012, that opportunity was demonstrated concretely when Kaufland, a chain of 100 fish retailers in Germany announced a 50,000 Euro donation. The funds were raised through a consumer sales campaign to support The Gambia's Marine Stewardship Council eco-label drive. Half of the funds will go towards meeting the Government of The Gambia's fees for certification. The remaining 25,000 Euros will go directly to the fishing communities for activities such as improving health and hygiene; fish quality assurance; and monitoring, control and surveillance in closed fishing areas.

USAID support has provided expertise and financial assistance for technical studies, stakeholder meetings, development of a co-management plan and strengthening of the Department of Fisheries and the fishers' association, the National Sole Fishery Co-Management Committee (NASCOM), who will carry out management responsibilities under the sole fishery co-management plan. As momentum towards MSC certification in The Gambia receives this market driven boost, the USAID/BaNafaa Project's focus will continue to be on the capacity of the co-management organizations. They now have the mandate to ensure that the market continues to be a positive force in sustainable management of the ecosystem, the fishery and the livelihoods of fisher communities.

Learn more at http://www.msc.org/documents/get-certified/fisheries/developing-world-newsletter-communitycatch-december-2011-english

b. Development of the Oyster and Cockle Co-Management Plan

The USAID/BaNafaa project has been the principal partner of the Government of The Gambia and the TRY Women's Oyster Association in the development of the Oyster and Cockle Co-Management Plan. The USAID/BaNafaa 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 shoreline shellfish sanitation survey in Banjul, Oyster spatfall studies, oyster and cockle aquaculture pilot action research and oyster value chain analysis, as well as on 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. As a result, the Co-Management Plan will be approved and launched on January 17, 2012.

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, before which 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 greatly improved. They now have proper working gear, including work boots, boats, life jackets, and improved harvesting and shucking tools, thus markedly reducing the work hazards.
- Now the women also 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 technique and its costs and can decide whether they will pursue aquaculture with their own investments.
- 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 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. The credit is designed to enable the women to engage in alternative livelihoods during the closed harvesting season, and many have now developed the culture of saving money.

- TRY members were trained in soap-making as an off season livelihood option (an activity identified and tested, but which may not be broadly applied due to low returns)
- 30 young women (the daughters of TRY members) are undergoing training in home economics 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 high school scholarships to the most deserving children of the oyster harvesters.
- With the technical assistance of the USAID/Ba-Nafaa project, TRY has developed a comprehensive business plan that includes sections on: Enterprise Sustainability, Market Segmentation, Marketing and Sales including branding of products and value addition, Healthcare and Insurance, Financial Analysis, Cost and Revenue projections, Operating Procedures Manual, and plan for a Sustainable Building proposal to establish a permanent multi- purpose center for the Association. An application for allocation of land area that has been submitted to Government has been reviewed and additional information requested by the Government.
- As the USAID/Ba-Nafaa project 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, Quarter 1:

Approval of the Oyster and Cockle Fishery Co-Management Plan: Approval of the co-management plan and the signing ceremony was delayed until January 17, 2012 as indicated for the sole plan above. The oyster and cockle plan was also the subject of final stakeholder review meetings during this period. 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.

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 Global Environmental Facility (GEF) grant during this period.

Figure 2: Signage marking the mangrove reforestation area in Kartong

Aquaculture action research: Cockle redistribution and oyster basket culture pilot activities carried out by TRY members continued this quarter with support from the local fisheries officer and the Peace Corps Volunteer in Kartong. Environmentally friendly aquaculture research and development is also a management measure specified in the co-management plan.

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.

Microfinance: A new 6 month cycle of microfinance loans has been initiated. This cycle is designed to reward and institutionalize the practice of saving. During the first round of loans, 150 women (60%) were able to save 500GMD or more. These 150 are now eligible for and have received new loans. Loans range in size from 500 – 5000 GMD determined by the amount of savings. Another training session by NACCUG will be offered next quarter to the whole group, who now understand the benefits of saving rather than just repaying loans. The 150 who received round 2 loans are counted for IR1 indicators 1, 2 and 3 in the table above.

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 quarter. 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.

c. Water & Sanitation

In July 2011, the USAID/BaNafaa Project was awarded a Water and Sanitation add-on for $759,126 for 3 years 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, recruited a WASH Coordinator, Dr. Bamba Banja.

Accomplishments Year 3 Quarter 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.

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 will conduct 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 will be responsible for the design, sub-contracting and oversight/quality control of infrastructure construction as well as environmental compliance documentation.

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

Sensitization meeting: A one day sensitization meeting on the objectives and activities of WASH on 13 December, 2011 in the Conference room of the Department of Water Resources, Ministry of Fisheries, Water Resources and National Assembly Matters. 28 participants were present, including the Permanent Secretary of Fisheries, Water Resources and National Assembly Matters, as well as 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, as well as the general public through media coverage, on the USAID/BaNafaa WASH component and that a needs assessment would be conducted in 16 communities starting in January. An open process with stakeholders well informed is necessary at the outset to minimize frustration later when only 7 of the 16 sites will be selected.

Figure 3: The Permanent Secretary, Mr. Amadou Saine, delivering the key note statement on behalf of the Minister of Fisheries, Water Resources & National Assembly Matters at the WASH sensitization meeting.

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 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.

Needs Assessment: The methodology and tools for the needs assessment were developed and tested. 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 began on January 4, 2012.

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				
5	Number of government personnel, community leaders and private sector stakeholders trained in natural resources mgt	260	1				
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[2]	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				
8	Number of stakeholders participating in regional meetings and/or exchange visits	60	1				
9	Number of workshops/meetings on policy reform for the artisanal fisheries sector held between Senegal and the Gambia	3	0				
10	Number of reports documenting transboundary issues and alternative solutions	1	0				
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				
CC1	Number of climate vulnerability assessments conducted as a result of USG assistance	1	0				
CC2	Number of stakeholders using climate information in their decision making as a result of USG assistance	30	0				
CC3	Number of institutions with improved capacity to address climate change issues as a result of USG assistance	8	0				

Progress on Activities Contributing to This Intermediate Result:

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

As discussed under the sole and oyster co-management plan headings under IR 1 above, the sole and oyster co-management plans approval was delayed until January 17, 2012. The 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.

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

Accomplishments Year 3 Quarter 1:

See above progress on Co-Management Plans. FY 12 targets for indicators 7 and 11 under IR 2 will be accomplished in Quarter 2.

b. Human Resources Training/Regional Exchange Visits:

Degree training for DoFish staff: Another strategy of the *USAID/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).

Accomplishments Year 3 Quarter 1:

The degree training for DoFish staff was on-going in Quarter 1. Both are expected to complete their studies in Year 3, FY12.

PHE workshop: 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 BALANCED 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 Co-Management experience outside The Gambia: Although not funded by USAID/BaNafaa, Fatou Janha, Executive Director of TRY, shared The Gambia Co-Management experience and the institutional capacity strengthening of TRY supported by USAID/BaNafaa in an international forum. Sponsored by the Banesto Foundation in Spain through the Association of Small Scale Enterprise and Tourism in The Gambia, on November 18-24, 2011, she attended 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.

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, this assessment will to the extent possible, also look into the comparative cost structure for processing plants and exports to Europe in the two countries.

Accomplishments Year 3 Quarter 1:

Contracts with a lead consultant from Senegal and a secondary consultant from The Gambia to conduct the study were signed and work begun. In addition, three individuals were contracted to collect data at 3 border crossing sites. The report is anticipated in January 2012, followed by a bi-lateral meeting to discuss the issues.

d. Bi-Lateral (Gambia/Senegal) Climate Change Vulnerability Assessment and proposed adaptation measures

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. Proceedings are at http://www.crc.uri.edu/download/Proceedings_CCA_Workshop_Report_English.pdf .

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. An interdisciplinary science team will conduct the vulnerability assessment. The team will comprise expertise on marine and wetland ecology and conservation, GIS, fisheries biology, and community development over a 6 – 12 month period. A consolidated report will be prepared and will be the basis of discussion for a stakeholder workshop to review the findings and identify and prioritize climate change adaptation activities. The study is led by Dr. Arona Soumare, Director of Conservation WWF-WAMER. and Mr. Mat Dia WWF Country Program Coordinator, Gambia. Prioritized climate change adaptation activities will provide the basis for the development of a request for additional funds to implement selected activities under the USAID/BaNafaa project.

Accomplishments Year 3 Quarter 1:

Detailed Terms of Reference for GIS, inundation mapping, community vulnerability assessment, mangrove habitat assessment and impacts on fish species have been developed, using concepts and guidance from "Adapting to Coastal Climate Change: A Guidebook for Development Planners" USAID, May 2009. Contracts with 5 consultants were signed and a harmonization/orientation meeting was held on November 17th to coordinate the work of the group around a common conceptual framework. Their work is now underway. The stakeholder workshop is scheduled for Quarter 2.

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[3] 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				

[3] 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.

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 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 Quarter 1:

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 will be achieved in Quarter 2 when the plans are approved.

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[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				
16	Number of vessels registered/licensed	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.

[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 (WAMER)

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 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.

These measures are institutionalized in the Co-Managements Plans, which once approved will serve as models for other sectors, areas and countries in the WAMER.

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

Accomplishments Year 3 Quarter 1:

See above. The target for Indicator 12 will be accomplished in Quarter 2.

3. Project Management

CRC/URI has also now established its own in-country office in The Gambia, primarily to manage the WASH component that begins 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 lead.

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.

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 Anticipated

- Mike Rice: shellfish sanitation January, 2012
- Karen Kent for Management Plans signing event January 2012.
- Chris Anderson: Jan. (10 days) – Sole & Oyster economic fisheries indicators WB model.
- Jim Tobey add on from Senegal for validation workshop on cross border trade and governance scorecard. 3-2 days February 2012.
- Castro/Najih PARTAGE Regional Workshop, March 2012
- Karen Kent + Hilary February/March CC workshop in Senegal, Karen on to Gambia for WASH site selection validation workshop.
- Ousman Drammeh to Madrid for MSC Conference 15 February, 2012. Per Diem and lodging only on BaNafaa.

3.2 Environmental Monitoring and Compliance

Based on the revised initial environmental evaluation (IEE) approved earlier this year for the project , 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. Several 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.

3.3 Branding

The USAID/BaNafaa Project provides information through many existing channels. This includes through presentations at meetings, conferences, outreach sessions and other forums as well as through print media—e.g., peer-reviewed articles in professional journals, locally produced Information, Education and Communication (IEC) materials, pamphlets, brochures, policy briefs, guides, and PowerPoint presentations. The main target audiences include local communities, local government agencies, national policymakers, grassroots NGOs, and other donors. Acknowledgement is always given to the generous support of the American people through USAID in all Project communications and materials. Also recognized are partnerships

and support from local government ministries, agencies and departments who participate in various activities of the Project.

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/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/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	5/21/2011	6/5/2011	3	0	3	15,910
Fish stock assessment	USA	5/21/2011	6/12/2011	3	2	5	34,387
MPA-PRO Certification Training	Kenya	13/6/2011	17/6/2011	1		1	3,000
BS Degree Training – Fisheries technology	Nigeria	2011	On going	1		1	10,000
Total				***8***	***2***	***10***	***63,297***
July 11 – September 11							
BS Degree Training – Fisheries technology	Nigeria	2011	On going	1		1	10,000
TRY members to FENAGIE	Senegal	09/2011	xx		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 – December 11							
PHE workshop	Senegal	12/4/2011	12/07/2011		1	1	*
Training of the Facilitators for WASH Needs Assessment	The Gambia	12/27/2011	12/29/2011	8	2	10	$1,128
Total				***8***	***3***	***11***	***1,128***

*Costs still to be reported

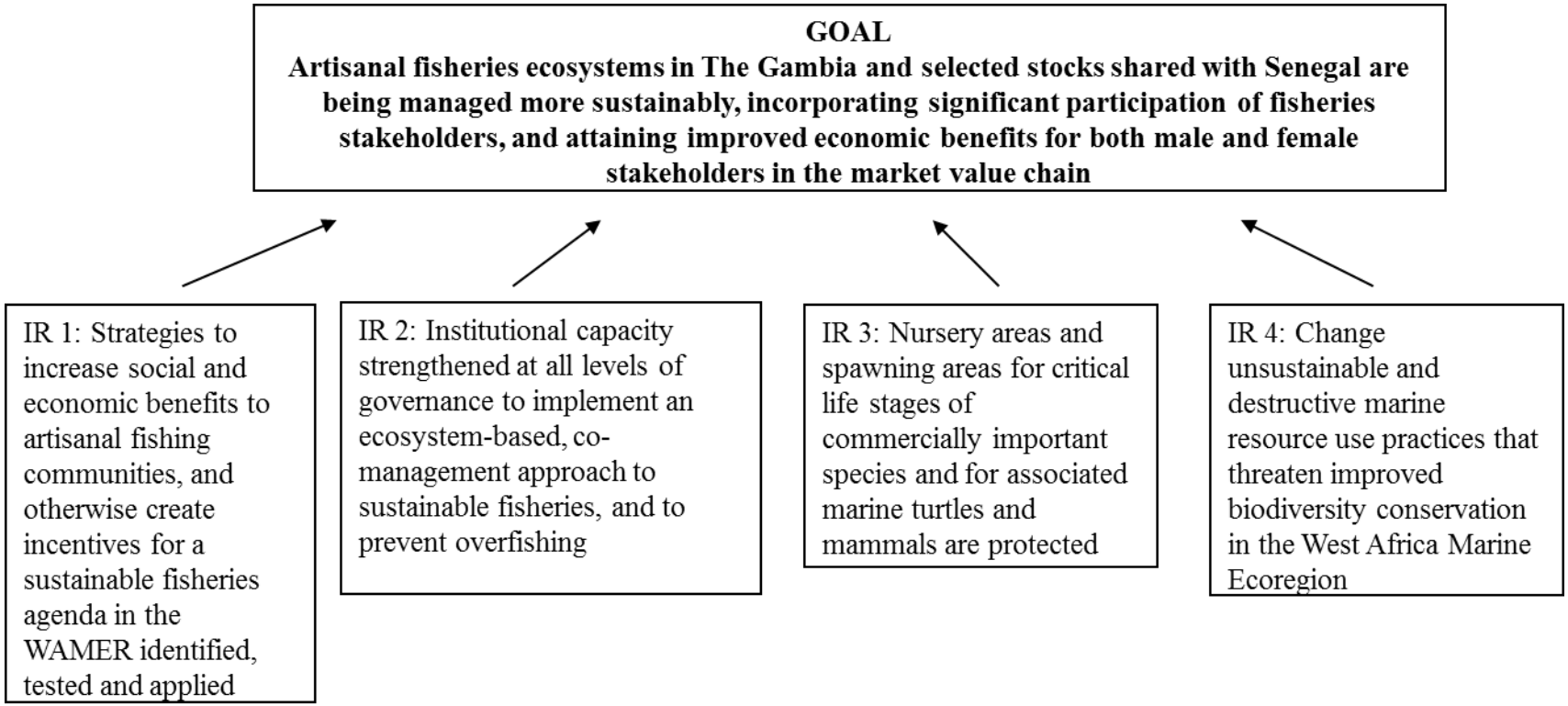
4. Estimated Financial Status

The following table shows a pipeline analysis of actual expenditures in relation to obligations through December 2011.

AMOUNT SUB-OBLIGATED		$2,007,198
(total federal outlays as of last SF 425/voucher)		
Expenditures		
Period Covered In Last SF 425	Thru September 30,2011	1,481,087
Actual	October to December 2011	240,663
Encumbered as of December (unliquidated obligations)		148,237
TOTAL EXPENDITURES (Amt on SF 425 + Recent Expenditure)		$1,869,987
BALANCE OF SUB-OBLIGATED FUNDS REMAINING		$137,211

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.) [5]	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[6]	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

[5] 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.

[6] 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[7] 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[8]	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)[9]	No targets set but progress towards BRPs will be tracked.

[7] 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)

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

[9] 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.