

# **Collaborative Management for a Sustainable Fisheries Future in Senegal (USAID/COMFISH)**

## **Year One Work Plan (February 14 – September 30, 2011)**

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In Partnership with:

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### ***List of Acronyms***

ACCC	Adaptation to Climate and Coastal Change in West Africa
AOTR	Agreement Officer's Technical Representative
BRPs	Biological Reference Points
CCLME	Canary Current Large Marine Ecosystem
CLP	Local Fisheries Committees
CLPAs	Local Councils of Artisanal Fishers
CNCPM	National Consultative Council for Marine Fisheries
CONIPAS	Conseil Interprofessionnel de la Pêche Artisanale au Senegal - National Fisheries Stakeholder Council
CRODT	Centre de Recherches Oceanographiques de Dakar Thiaroye – Oceanographic Research Center- Thiaroye, Dakar
CSE	Centre de Suivi Ecologique- Ecological Monitoring Center
DEEC	Direction de l'Environnement et des Établissements Classes
DITP	Department of Fisheries Processing Industries (Direction des Industries de Transformation du Poisson)
DPM	Direction des Pêches Maritimes - Department of Marine Fisheries
DPN	La Direction des Parcs Nationaux- Department of National Parks
DPSP	Department of Fisheries Protection and Surveillance
ENDA	Energy-Environment-Development
FENAGIE	Fédération Nationale des GIE de Pêche
GDRH	World Bank Sustainable Management of Fish Resources Project
ISRA	Agriculture Research Institute of Senegal
IUPA/UCAD	Institut Universitaire de Pêche et d'Aquaculture- University Cheikh Anta Diop- Dakar Institute of Fishing and Aquaculture
LPS	Fisheries and Aquaculture Sector Policy Letter of 2008 (Lettre de Politique Sectorielle élaborée en 2008)
MEM	Ministère de l'Economie Maritime - Ministry of Maritime Economy, Fisheries, and Maritime Transport
MPAs	Marine Protected Areas
MSC	Marine Stewardship Council
NAPA	National Adaptation Plan of Action
PLS	Fisheries and Aquaculture Sector Policy Letter of 2008
PMP	Performance Management Plan
PMU	Project Management Unit
PRAO	World Bank-funded West Africa Regional Fisheries Program
URI	University of Rhode Island
USAID	United States Agency for International Development
V&A	Vulnerability Assessment and Adaptation Planning
WAMER	West Africa Marine Ecoregion
WWF	World Wildlife Fund for Nature

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## 1. Introduction and Background

The Collaborative Management for a Sustainable Fisheries Future in Senegal (*USAID/COMFISH*) is a five-year initiative (February 14, 2011 – September 30, 2016) supported by the U.S. Agency for International Development (USAID). It is implemented through a cooperative agreement with the University of Rhode Island (URI). Key implementing partners include WWF-WAMER, FENAGIE, ENDA, CSE, IUPA, and other key government, private sector and nongovernmental organizations (NGO) stakeholders along the coast and in the fisheries sector.

The goal of the *USAID/COMFISH* Project is to support the Government of Senegal’s efforts to achieve reform of its fisheries sector by strengthening many of the enabling conditions necessary for improved governance and demonstrating effective tools and approaches for ecosystem-based collaborative management of its marine fisheries through a learning by doing process.

This document describes the start up and work activities of the USAID/COMFISH Project in the first fiscal year (February 14-September 31, 2011).

The work plan is organized into five components. The first section provides background on the fishery context in Senegal. The second section describes the goal and key results expected over the life-of-the-Program. This is followed by a detailed description of activities to be implemented in Year 1. It includes task implementation schedules and milestones and results per activity area. For each respective activity area, the work plan also identifies the responsible Project staff and participating partners. This will help guide teams involved in implementing the activities. Project activities are aggregated into six main activity component areas:

- Institutional capacity building
- Fishery management plans
- Enhanced fisheries value chains on selected species
- Climate change vulnerability assessment and adaptation planning
- Managing marine ecosystems
- Communications

This workplan also includes a description of the Project’s management structure, monitoring and evaluation strategy, and performance and reporting framework. Summary budget information is also included. Appendix A is the performance management plan (PMP), which describes targets and results to be achieved for each performance indicator.

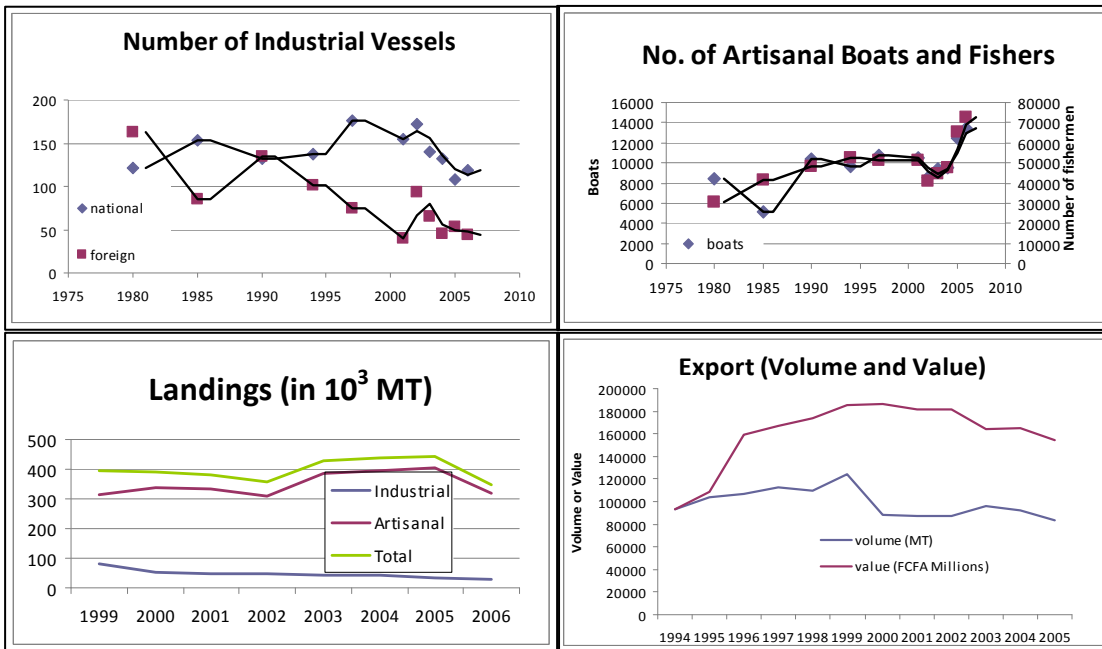
### *1.1 Situation Analysis of the Fisheries Sector*

**Importance of the Fisheries Sector for Economic Growth and Food Security:** Marine fisheries harvested along the coast of Senegal play a critical role in food security, livelihoods, local and national economic growth and well being. Industrial and artisanal/traditional fisheries combined, either directly or indirectly, provide an estimated 600,000 jobs—17 percent of the total labor force. The fishing sector produces 300,000 metric tons of high quality protein annually—providing the nation with 47% of its total protein and 70% of its animal protein needs. Fisheries products contributed close to 37% of the total value of exported goods between 1997 and 2002. In spite of the significant contributions of the fisheries sector to the Senegal economy and food supply, approximately one-third of the population lives below the poverty level and more than two-thirds earn less than US\$2 per day. Forty-six percent of households in Senegal are considered vulnerable and 20 percent highly vulnerable to food insecurity. According to the Global Hunger Index, this classifies the food security situation in Senegal as “serious”. Malnutrition levels are high, with approximately 17% of children under the age of five underweight. Iron deficiency levels in women are over 70 percent

and are also a concern in children. Thus, it would be hard to overstate the importance of fisheries to sustaining an important supply of food and wealth for Senegal's people.

**Biological Significance of the Marine Ecosystems in Senegal:** Senegal's marine zone is part of the West Africa Marine Ecoregion (WAMER), one of the world's most biologically outstanding areas and a World Wide Fund for Nature's (WWF) Global 200 eco-region. This biodiversity is sustained by oceanic upwelling as part of the Canary Current Large Marine Ecosystem (CCLME). These powerful oceanic currents also create a tremendously productive food chain that supports 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, five species of endangered marine turtles, and the threatened West African Manatee. This immense biological productivity is further enhanced by several major river/estuary/delta complexes that provide additional influx of nutrients and sediments. Maintaining this rich biodiversity and the health and quality of this highly productive marine ecosystem is critical to maintaining a sustainable supply of goods (e.g. food) and services (e.g. employment) for Senegal's citizens.

**Trends in Fishing Effort, Landings and Status of Fish Stocks:** Fisheries resources are shared by artisanal and industrial sectors. In the past, the industrial sector generally produced products for export, while the artisanal fleet supplied fish for local consumption and distribution. Over the last decade a shift has occurred. The number of registered canoes in the artisanal fleet rose from 8,488 in 1980 to 13,420 in 2006 while nationally registered industrial vessels declined from a high of 176 in 1997 to 119 in 2006 and the number of foreign vessels declined from 163 in 1980 to 44 in 2006. Over the last decade, while total landings have remained relatively stable at over 300,000 MT annually, the artisanal fishery has come to dominate the supply chains for both local and export markets—providing 94% of fish, 63% of molluscs, and 25% of crustaceans landed in Senegal.



The roughly constant landings varying from 400,000 to 430,000t/year do not immediately suggest that there is a serious situation in Senegal's fisheries. However these apparently steady total landings mask a serious situation which is common in multispecies tropical fisheries which are subjected to increasing effort: there has been serial overfishing of at least 10 important demersal species. This is

masked because as effort expands the fishery lands more of the previously untargeted species. Then these previously under targeted species are also overfished. When all of the important species have been serially overfished the total landings may fall precipitously and this may be what is happening in Senegal when landings fell from 430,000t in 2004 to 340,000t in 2006 (i.e. by 20% over two years). Also of concern are reports that landings data have not been collected or published since then and therefore there may be no objective means of diagnosing the current condition of Senegal's fisheries. However if the fall in catch observed from 2004-06 has continued, this offers a potentially serious threat to Senegal's main protein supply for human consumption.

The observed growth in artisanal effort is probably due in part to the growth in coastal populations, the role of fisheries as a social safety net, and problems in the nation's agriculture sector. As the agricultural sector has declined, many inland residents have migrated to the coast to practice both fishing and agriculture. In addition, thousands of Senegalese artisanal boats fish in neighboring waters—i.e., an estimated 30 percent of the coastal demersal species landed in Senegal by small-scale fishers are caught outside of the country's waters. As artisanal efforts have increased, those of industrial fleets have decreased owing to multiple factors—i.e., a decline in demersal fish stocks driving down profits, increased fishing costs (e.g. rising fuel costs), loss of European tariff advantage and increasingly stringent export requirements with European markets. The IUU activities from foreign vessels is believed to be significant and Senegal has been unable to effectively control and prosecute these cases.

**Key Issues for the Sustainable Management of Senegal's Marine Fisheries:** Many of Senegal's fisheries are at or about to reach full exploitation levels. Some may have already exceeded maximum sustained yields. This creates a dangerous situation where the fishery remains open access and fishing effort, particularly in the artisanal sector, continues to increase without control. At the local level, the poverty and food security issues may override the efforts to control the fisheries. Overfishing can result in declining catches and reduced supplies of local food. With open access, economic rents are dissipated and wealth within the sector is difficult if not impossible to generate. If Senegal's coastal fish stocks are increasingly fished and if marine ecosystems on which they depend become more degraded from pollution, destructive fishing methods, and the effects of climate change, pressures on local stocks will increase even more if an open access regime is left in place. Also, Senegal artisanal fishermen historically have migrated to neighboring countries to fish. However, there are reports of increasing difficulties of Senegalese fishermen accessing neighboring waters. If excluded from access to in the future, Senegalese fishermen will be forced to fish only in home waters adding yet another layer of additional pressure on the existing fish stocks and marine ecosystem.

**Government of Senegal Response to Issues in the Fisheries Sector:** In the past, the Government of Senegal has applied measures to control fishing effort, relying on input controls and top-down directives. Such measures, however, are difficult to enforce, especially where enforcement capacities are weak. Fishers have had little involvement in deciding the measures—creating a sense of distrust and leading them to question the legitimacy of imposed regulations. Further, poor information on fish stocks and the number of fishing vessels makes it difficult to develop management plans for the various stocks.

More recently, the Government of Senegal has outlined a strategy under the current law, whereby communities would form legally recognized private associations, under existing commercial law, called Local Fishers' Committees (CLP, for Comité Local des Pêcheurs). These CLPs then enter into direct legal agreements with the Ministry of Maritime Economy in order to develop and implement co-management initiatives for targeted fisheries. The Minister legalizes these initiatives (e.g. input controls such as minimum mesh sizes, closed seasons, no-take fishing reserves, etc.) through a Ministerial Decree. At the multi-community and multi-CLP level, the Ministry has created Artisanal

Fishing Local Councils (CLPA, for Conseil Local de Pêche Artisanale), to develop management plans for wider coastal fishing areas and to harmonize and aggregate the co-management initiatives taken by the CLPs. The CLPAs however, do not cover large areas at the scale of individual fisheries stock units, which are important for management from a biological perspective.

At present, few CLPAs are fully operational and they have not received the promised financing that was to come from a share of vessel registration fees. To be a successful, decentralized, co-management model, there needs to be sustainable financing, and fisheries stakeholders need greater decision-making power. Currently, management measures proposed by Local Fishers' Committees decisions require endorsement by local representatives of the Directorate of Marine Fisheries (DPM, for Dirección des Pêches Maritimes). The functioning of co-management structures needs to be more thoroughly analyzed and adjustments made. At a minimum, it is important to identify mechanisms to strengthen the influence that local communities and fisheries stakeholders have on decision-making.

In order to move from open access to managed access, and improved co-management and associated decentralization of some management functions, explicit geographic areas of jurisdiction also needs to be addressed. Mandated geographic areas of jurisdiction would provide greater legitimacy and authority for CLPAs to enforce local regulations not only on local fishers, but fishers coming into their jurisdictions from other areas of the country.

At the same time the government is undertaking institutional measures to manage the fishery more fully, it also places high importance on the fisheries sector to continue to drive accelerated economic growth and poverty reduction. The *Poverty Reduction Strategy* mentions fisheries as key driver for wealth creation and the *National Accelerated Growth Strategy* lists fisheries as a pillar for boosting growth, while the *Agriculture Investment Plan* highlights the role of fisheries and aquaculture for food production. The government is also updating the National Fisheries Act of 1997, which has been passed from the DPM to the Ministry of Fisheries and if/when passed as well by the National Ministry, Prime Minister, and National Assembly will provide a renewed and strengthened framework for fisheries management.

In 2004, a government-led fisheries assessment resulted in important policy decisions now embodied in the Fisheries and Aquaculture Sector Policy Letter of 2008 (LPS, for Lettre de Politique Sectorielle). The LPS seeks to enhance the consistency of government interventions, projects and programs on the basis of clearly defined and prioritized objectives. It aims to bring together all initiatives by the government, development partners and donors around a consensual reference document. Strategic priorities are to reduce excess capacity and empower fishers. Development strategies in the LPS include:

- Control and manage maritime fishing capacities to meet the allowable catch potentials
- Control access to fishery resources
- Introduce fisheries development plans
- Promote a policy of conservation of marine habitat and fishery resources via integrated management of coastal areas
- Enhance and adapt fisheries research
- Optimize fisheries monitoring, control and surveillance resources
- Reduce post-catch losses

For fisheries to contribute to growth strategies there must be management reforms and sectoral strengthening— sustaining production and yields and generating increased wealth, while moving towards a substantial reduction in effort. A goal in the Government Action Plan for the Development of Fisheries and Aquaculture is to retire 3,000 artisanal and 40 industrial fishing boats. Fishermen will



need ample incentives and participation in decision making to develop widespread agreement on how this reform can be achieved.

Senegal is also putting in place the elements necessary for an ecosystem based approach to fisheries management with a growing network of marine protected areas (MPAs). A National MPA Strategy is under development, and a memorandum of understanding between the Ministry of Maritime Economy and the Ministry of Environment is being signed to clarify roles and coordinate efforts. Senegal has many organizations with expertise in fisheries. However, new models of engagement may be needed to fully utilize the strengths already in place to accomplish these fisheries reforms, Senegal will need new tools and approaches for governance, empowerment and management.

### ***1.2 International Donor Support to the Fisheries Sector***

There are over a half-dozen major international donor community investments/initiatives being made in the development and sustainable management of Senegal’s fisheries sector—all of which support the strategies in the LPS in various areas of the country. Of particular note is the World Bank-funded West Africa Regional Fisheries Program (PROA), and the Senegal Sustainable Management of Fish Resources Project (GDRH). A challenge for the COMFISH Project is to ensure the USAID investment complements these fisheries reform efforts.

### ***1.3 USAID Strategy***

USAID Senegal is supporting economic growth by improving enabling conditions that can attract investment, help increase trade, and generate increased wealth through better management of Senegal’s natural resources. The USAID “Feed the Future” (FTF) initiative also supports Senegal’s Poverty Reduction Strategy and Agricultural Investment Plan. *USAID/COMFISH* will contribute to these development objectives by helping sustain the productivity of marine fisheries ecosystems, reducing post harvest losses, promoting international trade through eco-labeling and connecting artisanal fishermen and women more fully in the fisheries value chains. Through co-management and conservation the *USAID/COMFISH* program will contribute to overall results and targets of the FTF implementation plan. However, an observable effect on fisheries value chains and wealth, trade, and nutritional status is not expected initially as the enabling conditions for fisheries governance must be strengthened and demonstrated first.

It is important to note that *USAID/COMFISH* will also contribute to USAID biodiversity conservation objectives as the 2005 USAID/Senegal biodiversity threats assessment identified overfishing and destructive fishing practices as direct threats to Senegal’s marine biodiversity with particular concern about demersal stocks that comprise a bulk of the nation’s exports.

## 2. Project Goal, Result Areas and Strategies

USAID/Senegal wishes to help reform the fisheries sector in Senegal as outlined in the Fisheries and Aquaculture Policy Support Letter so that it continues to provide income and food security for the nation's growing population. The *USAID/COMFISH* Project will not only assist with this reform, but also promote the USAID goals of biodiversity conservation and address the cross cutting themes of improved governance, gender equity and adaptation to climate change impacts.

The *USAID/COMFISH* project seeks to develop and replicate new models for sustainable fisheries to assist Senegal in achieving sustainable management of its artisanal fisheries. While most activities will be focused in Senegal, others will be directed at harmonizing governance of artisanal fisheries at the transboundary CCLME scale since many of the fish stocks of economic and food security importance are shared with Senegal's neighbors.

The long term (20-30 year) goal of *USAID/COMFISH* is that *Senegal's fisheries are no longer over-exploited and are (1) providing the nation with a reliable supply of high quality protein, (2) in a manner that contributes to the quality of life in artisanal fishing communities while (3) sustaining the ability of coastal and marine ecosystems to generate the goods and services that the people of Senegal want and need.*

The project will concentrate on-the-ground activities in two focal areas shown in the map below:



**Map of Project Priority Areas**

## 2.1 Key Premises

The Project design considers what is required to ensure a long-term, sustainable fishery in Senegal:

1. Increased wealth and a sustained food supply from marine fisheries require significant improvements in governance of marine fisheries.
2. The above requires resilient co-management systems where fisheries stakeholders share decision-making power with government.
3. The management measures that are negotiated must be driven by social and economic incentives for fishers, have high stakeholder support and take into account maintaining essential fish habitats and ecosystem structure and function necessary to provide goods and services to Senegal's citizens.

## 2.2 Key Result Areas and Milestones

The USAID/COMFISH project will contribute to four key result areas:

1. Institutional capacity strengthened at all levels of governance to implement an ecosystem-based, co-management approach to sustainable fisheries, and to prevent overfishing
2. Strategies and policies to overcome unsustainable and destructive marine resource use practices that threaten biodiversity conservation in the West Africa Marine Ecoregion are tested and applied
3. Vulnerability assessed and capacity of vulnerable coastal communities strengthened to adapt to impacts of climate variability and change
4. Increased social and economic benefits to artisanal fishing communities provide incentives to a continued sustainable fisheries agenda

Milestones to achieving these result areas in the Year 1 period include the following:

Result Area	Year1 Milestones
Institutional capacity strengthened for co-management	Needs and issues for more effective co-management identified
	Strategy designed for CLPA/CLP institutional strengthening
	Strategy developed for gender mainstreaming and empowering women more fully in decision making.
	Fishermen to fishermen meetings with national proceedings that defines Best Management Practices and codes of good conduct
	Training needs for information systems identified
Strategies to overcome unsustainable and destructive marine resource use practices tested and applied	Stock assessment review completed
	GIS base maps and data base developed
	Specific stocks/ecosystems for targeted management plans selected
	GOS maps and database of projects/ CLPAs developed
	National MPA strategy promoted for formal adoption
Increased social and economic benefits to artisanal fishing communities	Species identified for value chain assessments and ToRs developed with partners
Climate change vulnerability assessments and adaptation planning	Needs for mainstreaming climate change into fisheries policy identified
	Vulnerability assessment and adaptation planning guide developed
Communications	Project launched
	Local name selected
	Communications strategy developed

### 3. Year One Activities

#### 3.1 Program Mobilization and Administrative Start-up

Start-up activities are expected to be completed within the first 120 days. One of the first actions will be to put in place the staffing and basic administrative and financial structures, operational procedures, and policies to carry out the Project, including but not limited to the following:

**Staffing:** Hiring and finalizing contracts for in-country staff—i.e., the Project Director and Deputy, Senior Fisheries Officer, Communications Officer, and Finance and Administrative Officer. Training and orienting in-country staff and partners in administrative, fiscal and programmatic reporting procedures and policies including PMP, TraiNet, environmental review, branding, etc.

**Local Partners and Coordination:** Preparing of sub-agreements with local partners to carry out Phase 1 programmatic activities. Further refinement of project roles and expectations during Year1 start up phase.

**Office:** Setting up of a local project management unit (PMU) office and purchasing of capital and equipment items. Establishment of local bank account and initiation of procedures to establish local funds transfer and management. Preparation of COMFISH Standard Operating Procedures (SOP) for in-country activities

**MIS:** Setting up internet service provider, information management systems and local MIS service agreement.

#### Activity Implementation Schedule

Activity	FY 2011			Local Implement. Partners	COMFISH Lead In-country	External Team
	Feb-March	Q3	Q4			
Project staff hired and trained in USAID procedures	X	X		N/A	TL/Dpty	Tobey/Moreau
Local partner sub-agreements prepared	X	X		N/A	Dpty	Tobey/Moreau
Office established and equipped		X		N/A	Dpty/CFO	Moreau
Setting up internet service provider, information management systems and local MIS service agreement		X		N/A	Dpty/CFO	Bowen
Vehicles obtained		X	X	N/A	CFO	Moreau

Dpty = COMFISH Deputy Director; CFO = Chief Financial Officer; TL = COMFISH Team Leader (Chris Mathews)

#### 3.2 Institutional Capacity Building

Institutional capacity refers to the ability of fisheries institutions and their human resources to practice co-management, manage access to the fisheries, and reduce effort in cases where fisheries are overfished. Management plans at the scale of fishery systems must be formulated and implemented with the ownership and support of fishers. This requires empowered and well functioning CLPs, CLPAs and national level fishery institutions; sound collaborative science for

management; the capacity to formulate viable management plans for targeted key species; and outreach and extension on sustainable fisheries. Sustainable financing for CLPAs is also important to ensure local co-management institutions are properly empowered and have the resources needed to carry out their mandates including planning, local enforcement and surveillance functions. The project will work to ensure CLPAs receive the financing they were promised as a share of the vessel registration fees, as these funds are essential for effective implementation and sustainability.

***Empowering fishermen, women and fisheries associations to create constituency for promoting good practices in fishing.*** Successful fisheries management puts fishermen at the core of reform and instills in them a sense of ownership of new innovative management approaches. To build such ownership, stakeholders need to meet and share experiences and needs, and assume responsibility for the management process and its outcomes. Since co-management and managed access are relatively new approaches for Senegal, there is a great need to document progress, keep lines of communication open and establish trust. Women empowerment in the fishing sector will be given specific attention. Women in many communities are often underrepresented in decision making bodies yet women are often the primary processors of the fishery product. They also bear the major responsibility of the family having a major influence on the health and welfare of the new generation.

In Year1 of the project, we will start a number of activities designed to allow stakeholders to learn from each other. These will include:

- Fishermen to fishermen exchanges to share best management practices and a national meeting so they can caucus together as a key stakeholder group and whose results feed into CLPA national co-management workshop (see Section 3.3)
- An evaluation of the role of women in the fishing community and the CLPAs and ways to strengthen their involvement in decision making and increase their benefits in the fishing sub-sector
- Evaluate role and needs of all partners in moving to a true co-management system

***CLPA and CLP institutional capacity strengthening strategy.*** Strengthening the capacity of the CLPAs is critical to the government of Senegal's goal of achieving the policy objectives outlined in the LPS. There are many lessons emerging from the formative co-management implementation experience to date, as a recent CLPA evaluation suggests. To build on early findings and results of the CLPA experience, *USAID/COMFISH* will in the first year:

- Review background documents and historical basis for management prior to CLPAs/CLPs
- Review laws and regulations regarding CLPAs, with particular attention to enforcement and compliance issues with respect to geographic jurisdiction and the issue of sustainable financing via a share of registration fees
- Assess capabilities of CLPs and CLPAs and their effectiveness
- Visit existing CLPs and CLPAs and identify key governance problems
- Facilitate a national workshop on co-management that brings representatives from all CLPAs, DPM, other donor projects and other government and NGO groups. They will aim to draw out lessons learned and recommendations to move forward
- Based on the outcome of the workshop, a capacity building program will be defined for future years and implemented. Capacity building will include both a national level and local level focus and will include a training program to be built into DPM and manuals.

**Building Capacity of National Stakeholder Organizations.** In support of the demonstration of sustainable fisheries management, the Project will further support activities within the action plan of the National Association for Sustainable Fisheries (“*the Alliance*”). Discussions of how the project can best support the development of this broad-based national stakeholder group will be undertaken in Year1 but only limited implementation of actions will not be started until Year2.

**Evaluation and Improvement of Fishery Information Systems.** It is difficult to get a clear picture of the status of the stocks at the present time. Many institutions are working on parts of stock assessments but basic information is not readily available. There is no sufficient directed governmental budget line item to sustain the national research institution in conducting on-going monitoring and assessment of stocks. This has led to inconsistent data collection and talented personnel leaving for other employment opportunities. There is an urgent need to have good monitoring data to manage stocks. Without reference points, it is difficulty to determine levels of effort suitable to maintain a sustainable fishery, which is the foundation of the new policies. Given this context, the project will work with partners to develop a process to identify gaps in data, establish research priorities and develop a collaborative research agenda. The project will engage discussions with universities, NGOs, fishermen, and processing sector for enhanced data collection and management.

One of the results of these efforts will be an assessment of the quality of Senegalese landings and effort data. A specific aim will be to better plan subsequent work in Year 2 that can standardize effort from the various fleets and gear types so that adjusted data sets can be used for updated and more accurate stock assessments. These activities will also determine training needs of partners in data collection and management, stock assessment, ecosystem approaches, and risk assessment. Capacity development activities would be initiated in Year2.

### Milestones

- Needs and issues for more effective co-management identified including:
  - steps needed to allow funds to transfer from registration fee collection to CLPAs
  - limitations of existing policies and laws with respect to devolved co-management authorities
- Capacity building strategy developed including gendered needs for empowering women more fully in decision making
- Fishermen to fishermen meetings with proceedings that highlight Best Management Practices and codes of good conduct
- Training needs for fishery information systems assessed and state of knowledge, gaps and means of improvement identified

### Activity Implementation Schedule

Activity	FY 2011		Local Implement. Partners	COMFISH Lead In-country	External Team
	Q3	Q4			
<b>Empowering Fishermen, Women and Fishery Associations</b>					
Community visits and field interviews	X	X	WWF w/ DPM	FO	Castro
Fishermen to fishermen exchange and national fishermen workshop		X	WWF	FO	Castro
Assess roles and needs of partners	X	X	DPM	TL/Dpty	Tobey
Assessment of the role of women in the artisanal fisheries		X	WWF	FO/Dpty	Hall-Arber
Workshop to develop strategy on how to empower		X	WWF	FO/Dpty	Hall-Arber

Activity	FY 2011		Local Implement. Partners	COMFISH Lead In-country	External Team
	Q3	Q4			
women in fisheries					
<b>Co-Management Capacity Strengthening Strategy</b>					
Assess legal, financial and institutional issues and governance for co-management in Senegal	June		WWF w/DPM	Dpty	Nixon or Karp
National meeting on CLPA/CLP issues needs, priorities, and design of capacity building activities		Aug	WWF w/DPM	TL	Nixon or Karp
Develop baseline instrument for assessing capacity of CLPAs		X	DPM	Dpty	Tobey
<b>Building Capacity of National Organizations</b>					
Early implementation actions w/ fisheries alliance		X	WWF	FO	Castro
<b>Information Systems</b>					
Meetings and discussions to compile existing data and assess needs for fisheries management information systems		Aug	CRODT	FO/TL	Castro

FO = COMFISH Senior Fisheries Officer. FC = URI Fisheries Center.

### 3.3 *Fishery Management Planning*

Fisheries management plans for selected artisanal fisheries inside the artisanal fishing zone (6 miles from the shoreline out to sea) will be formulated in partnership with DPM and fishery stakeholders. Priority will be given to stocks that are locally manageable, such as demersal species and shrimp. This project component will be coordinated with the GDRH initiative under DPM, which also intends to develop fisheries management plans. The purpose of a fisheries management plan is to establish short and long term objectives and create realistic and enforceable management actions. Plans should include a description of the fish and fishery, management objectives, reference points and harvest rules, institutional arrangements for co-management and resources needed to carry out implementation. Management plans become living documents with frequent review and amendments to adjust to changing fishery and environmental conditions. The foundation of the management plan is the data collection system and stock assessment information that provides clear reference points. Our assistance for developing plans will be strategic in order to illustrate in a case study fashion, how plans can be developed in a collaborative co-management fashion at the scale of a unit stock, and the added value of a well managed fishery.

Most of the stocks in Senegal are believed to be data poor. There may be limited knowledge available in the scientific format about basic life history parameters and history of exploitation patterns. Local Ecological Knowledge (LEK) is becoming a valuable tool to start to fill in knowledge gaps, however the challenge has been in combining the two types of knowledge in a quantitative way for use in stock assessment models and monitoring activities. This project intends to develop a system of gathering local knowledge in a useful manner for inclusion in the co-management plan.

Key activities in Year 1 will be to prioritize and identify the specific stocks within geographic focal areas (see Map in section 1) where the project will work to develop management plans. Candidate areas include Kayar, a major artisanal landing site, and the Saloum Delta and Petite Cote where there are candidate species/stocks for ecolabeling. A secondary focal area includes potential opportunities in the Casamance. In each area, there are emerging systems for fisheries co-management—likely owing to progress made under previous and other on-going initiatives—which increases chances for making more rapid progress and having greater impact. These areas

also include the locations selected for integrated MPA activities (Cayar, Joal and Bamboung). Since local ownership of project goals and directions will be critical to successful co-management and achievement of project goals, in its first year the project will identify and engage key stakeholders in reviewing the criteria and selecting specific stocks and areas for the project's geographic focus through a series of meetings and workshops. This will include a very quick desk-top summary review of actual landings and effort data for key stocks. This brief description will be an additional piece of information presented at the national workshop for choosing two priority stocks which the project will work on. A compilation of what other projects and donors are doing with respect to development of fisheries management plans will also be prepared and presented at the workshop. The project will start to spatially map information about locations of various fish stocks and donor activities to aid in the decision process.

Site selection criteria of candidate stocks within the focal areas will include: (1) fish stocks targeted mainly by the artisanal sector, and (2) mainly within the nearshore trawler exclusion zone (6 nautical miles) and associated estuaries (e.g. Saloum Delta). An additional criterion for developing management plans will be to select at least one high value export fishery with which to work to put in place the conditions necessary for eco-certification under the Marine Stewardship Council (MSC) program. Candidate eco-labeled species are lobster, octopus, hake and shrimp.

Eco-certification or eco-labeling indicates a fishery meets the principles and criteria set forth by a recognized certification body to be deemed a sustainable fishery. An eco-label is a market incentive that can open a product to more retail and wholesale opportunities, especially in Europe. Once priority stocks in the focal areas are selected, preparation of planning activities to start in Year2 will get underway and include both value chain assessments and improvements, quality product improvements as well as traceability improvements. Eco-labeling also involves establishing systems for ecological sustainability and is therefore integrated into activities under management planning including building systems for data collection and assessment of the status of the fish stock.

Industrial fishermen will be part of this discussion of stock selection since there is likely shared exploitation of some fish stocks between the industrial and artisanal fleets. The reduction of bycatch in the industrial sector may contribute greatly to a rebuilding approach that can benefit both the industrial and artisanal sector. Ultimately, the allocation of effort between the artisanal and industrial fleets will need to be discussed.

Fisheries management planning activities will not get underway until Year2 (September). However, the Project team will work on preparations for how the following initial actions will be conducted with various partners:

- Participatory mapping of priority fisheries selected (habitat, spawning sites, migration patterns, fishing intensity and by season)
- Form co-management committees for stocks selected and begin to and review existing knowledge and formulate management objectives
- Workshop on developing research needs, training needs, institutional arrangement for doing research and collecting data

The strategy needed to develop a fisheries co-management plan involves integration of the stakeholders in all aspects of the planning process. Year2 will start with the collection of local knowledge and scientific knowledge, the species choice becomes part of the process itself. Baseline data will set the stage for understanding the next steps in managing the fisheries.



Critical gaps in knowledge can be identified and strategies can be designed to work collaboratively to obtain the needed information. This will result in research priorities for specific stocks to be managed that can be used as a new national model of government/university/private sector partnership whose focus is on research, extension and outreach. Establishing management objectives that are comprehensive (based on stakeholder input) will assist in the development of harvesting and control rules and necessary monitoring activities. The planning process will also need to include development of co-management committee appropriate to scale of species selected that will guide the planning process.

While premature to know in advance whether reduction in fishing effort and reducing fleet capacity is a need for the specific fisheries selected, the LPS does lay out a national fleet reduction policy. Therefore, depending on review of stock status, exit strategies may be needed that look at incentives and other ways that fishermen could be transitioned out of fishing to other alternative livelihoods. While not planned in Year 1, this will likely be a need and task in Year 2 of the project.

### Milestones

- Specific stocks/ecosystems for targeted management plans selected
- GIS base maps and database developed

### Activity Implementation Schedule

Activity	FY 2011		Local Implement. Partners	COMFISH Lead In-country	External Team
	Q3	Q4			
GIS base map and database of fisheries information <ul style="list-style-type: none"> <li>• Stocks being worked on</li> <li>• CLPAs created or being supported</li> <li>• Government admin units</li> </ul>	X	X	CSE	TL/FO	Tobey
Desk-top review of status of fish stocks	X		CRODT	TL/FO	Castro
Donor workshop to discuss what various donors are already working on and where they are developing mgt plans and establishing CLPAs. Discuss and compare indicators – and possible standardization if possible	May/June		DPM/USAID/Donors	TL/Dpty	NA
Workshop to review status of main fish stocks		July	CRODT/IUPA	FO	Collie and URI/FC
Workshop to prioritize and identify the specific stocks/areas where the project will work to develop management plans and to determine training needs of partners in data collection, stock assessment, and ecosystem approaches.		July	DPM with all local partners/stakeholders	TL/FO	Castro/ URI FC
Develop terms of reference for developing baselines for the fisheries where mgt plans will be developed (ecol, socio-econ, governance): <ul style="list-style-type: none"> <li>• Ecological and stock assessments</li> <li>• Characterize harvest methods, seasons, etc</li> <li>• Current mgt arrangements and regulations</li> <li>• GIS mapping</li> </ul>		X	DPM/CRODT/IUPA/WWF/CSE/COPEM/GAIPES	FO/TL	Tobey/ URI FC

### 3.4 *Enhanced Artisanal Fisheries Value Chains*

Value chain analyses were recently completed for *bonga* and *oysters* under the Wula Nafaa project and a general Senegal fisheries value chain assessment was also completed in 2009. Value chain analyses identify entry points and opportunities for improving wealth and equity along the value chain from the point that fish are landed, to the points of processing, transport, and sales. A special focus of USAID/COMFISH will be to increase value added to small-scale and traditional women processors. As part of the N-P-W paradigm, work on value chain enhancement will only take place in sites where the project is working on sustainable management plans and the strengthening of associated management institutions, or where other projects are doing the same. Related to the value chain are issues pertaining to reduction of post-harvest losses, improved fish product quality and traceability. Activities in Year 1 will include:

- Identification of specific species for value chain analysis will be based on stakeholder workshop where specific fisheries are selected -see section on mgt planning). Consideration of the gendered aspects of the value chain in order to develop an action plan that targets opportunities for women entrepreneurs
- Develop terms of reference for value chain that should include:
  - Consideration of the gendered aspects of the value chain in order to develop an action plan that targets opportunities for women entrepreneurs
  - Review of the cold chain needs and opportunities; on-board quality practices; preservation techniques (gutting, bleeding, insulated ice boxes, smokers, fermenting, etc.); and, water and sanitation conditions at landing and processing sites
  - Identification of one to two landing sites (including Cayar) to test the feasibility of labeling a fish product with clear traceability criteria (value is added to a fish product when it can be traced to a landing site with high standards and good practices in product quality from boat to market)
  - Value chain analysis will include both looking at economics and pricing, as well as energy consumption, distancing of information and power (who controls) through the market chain
  - Meetings with processors, retailers

#### **Milestones**

- Value chain species identified
- ToRs developed with partners

#### **Activity Implementation Schedule**

Activity	FY 2011		Local Implement. Partners	COMFISH Lead In-country	External Team
	Q3	Q4			
Develop terms of reference for value chain		X	CRODT	Dpty/ FO	Tobey
Develop terms of reference for energy value chain study		X	ENDA	Dpty	Tobey

### 3.5 *Climate Change Vulnerability Assessments and Adaptation*

Climate changes are already occurring and will intensify. For Senegal, it is likely to have significant impacts on the fisheries sector, coastal and marine biodiversity, coastal habitat and infrastructure, and coastal communities. These impacts can impinge on the success of co-management and the goal of a prosperous and sustainable artisanal fishery. Indirect impacts can

include changes in precipitation patterns and soil salinization that will drive people from inland agriculture and cause a demographic shift toward the coast, adding to the number of fishers and fishing effort. Direct impacts can include coastal erosion and habitat loss associated with sea level rise and storm sea surge, soil salinization, and salt water intrusion of coastal aquifers. Most of the climate change activities will not be started in the first year but deferred for start up until Year2. In Year 1, USAID/COMFISH will:

- Participate in Ba Nafaa regional workshop on climate change, fisheries and MPA's, held in Senegal, March 22-25, 2011
- Produce a guide on how to conduct vulnerability assessments and adaptation strategies that would be the basis for subsequent use in specific sites in Year2 once project sites are selected (communities involved with fishing of fisheries stocks selected for management planning)
- Meet with DPM, CLPs, CLPAs, CoMNAC (the National Committee on Climate Change), DEEC and other groups to draw out climate change issues and lessons learned in fishing communities and discuss needs for mainstreaming climate change into sectoral fisheries policy and local communities

### Milestones

- Needs for mainstreaming climate change into fisheries policy identified
- Vulnerability assessments guide developed

### Activity Implementation Schedule

Activity	FY 2011		Local Implement. Partners	Lead In-country	External Team
	Q3	Q4			
Develop coastal vulnerability assessment and adaptation planning guide	X	X	ENDA	Dpty	Tobey
Initiate discussions with DPM on mainstreaming climate change adaptation into fisheries policies planning, related to critical habitat most vulnerable, infrastructure at risk, etc.		X	CSE/DPM/ME	TL	Tobey

### 3.6 Managing Marine Ecosystems

Fisheries management planning must identify areas where limiting or excluding human uses is necessary to protect critical fisheries ecosystems, areas typically referred to as marine protected areas. In support of the government of Senegal's policy of conservation of marine habitat and fishery resources, the project will work at the local and national level. At the national level, effort will be directed at the successful adoption and implementation of the new Marine Protected Area (MPA) strategy. At the local level, three selected existing MPA's will be strengthened (Cayar, Joal, Bamboung) during the life of project. Initial actions in Year1 will focus on development of the national MPA strategy as well as advocacy and outreach activities for its formal adoption. In addition, a needs assessment and design of a MPA professional competency development program with the Ministry of Environment based on the Western Indian Ocean Certification of Marine Protected Staff ([WIOCOMPAS](#)) model developed by CRC and the Western Indian Ocean Marine Science Association. Based on their assessment of this approach to staff development, we will decide how to move forward on adapting it to Senegal in Year 2.

No MPA site level support is planned at this time. However, WWF is conducting needs assessments from which specific recommended actions will emerge that we would feed into the WWF activities for Year 2 (Oct 1- 2011 - Sept 30, 2012) Early actions in Year2 may include

monitoring and surveys to establish baseline conditions, and/or preparation and distribution of maps and charts with MPA boundaries, or other outreach materials, among other activities.

WWF has match resources for a technical committee meeting to review the draft MPA strategy developed by a consultant. COMFISH will support WWF to implement a national committee meeting on final version. COMFISH would then support WWF staff time to work on getting the action plan approved at the Ministerial level by MEM and ME.

**Milestones**

- National MPA strategy completed
- MPA strategy approved by MEM and ME

**Activity Implementation Schedule**

Activity	FY 2011		Local Implement. Partners	Lead In-country Team	External Team
	Q3	Q4			
Participation in WIOMSA MPA professional development assessment event and Training of Trainers for assessors (Arona and Paul)	May		WWF	TL	Ricci/URI
Engage DPN on concept of certification as part of human resources development strategy for MPA staff	X		WWF/ME	TL	NA
National MPA Strategy Planning Committee meeting to finalize National MPA strategy	X		WWF	TL	NA
Advocacy to get the strategy approved at the Ministerial level MEM and ME.		X	WWF/ DPM	TL	NA

**3.7 Communications**

Engagement of the partners is a critical first step in the initiation of the project. This begins with the selection of a project name that will be meaningful to the stakeholders. The project name is the first communications strategy for the project. Ultimately all impacts from the project will be linked to the name, allowing partners to be recognized as contributors. A competition will be held for a local name among fishermen and the winner and winning name announced at a public launch event. A public project launch event will be held that will include invitations for high level representatives from MEM, ME and USAID among other fisheries stakeholder representatives and local implementing partners. Press releases and media coverage will be arranged for this event as a means of developing widespread awareness and support of the project within the fisheries stakeholder communities. During this initial project start-up period, a communications officer will also be recruited and hired. This person will be responsible for the launch event, general media outreach, production of USAID success stories as well as development of a broader communications strategy for the project – both external as well as internal among key implementing partners.

**Milestones**

- Project launched
- Local name selected
- Communications strategy developed

### Activity Implementation Schedule

Activity	FY 2011		Local Implement. Partners	Lead In-country	External Team
	Q3	Q4			
Hire communications officer	X			TL	Tobey
Competition for Project local name	X		COPEM/ FENAGIE	Dpty/ CO	NA
Launch event w/ high level officials		X	USAID/ DPM	TL/CO	NA
Biweekly highlight bullets to USAID Success stories	X	X	N/A	TL/ CO	NA
USAID Success stories – (2 per year)		X	USAID	CO	Squillante/ URI
Develop Communications Strategy <ul style="list-style-type: none"> <li>• Internal w/ key implementation partners</li> <li>• External stakeholders</li> </ul>		X	DPM	CO	Squillante/ URI
Editing, layout , production and distribution of key documents in English and French, and 508 compliance and distribution	X	X	N/A	CO	Squillante/ URI

## 4. Project Management

### 4.1 *Strategic Partners and Clients*

While URI is the lead institution responsible for overall management and implementation of the USAID/COMFISH project and financial reporting to USAID/Senegal, government regulatory, research and educational institutions are the project's key clients. The only way there will be long term success and sustainability of fisheries reform in Senegal is if these national lead agencies and local counterparts have the capacity for and commitment to providing on-going support (policy, technical, and financial) to implementing reform measures and new approaches introduced by the project long after it has ended. USAID/COMFISH will help to strengthen these agencies via a learning-by-doing approach. USAID/COMFISH will also work with the civil society and private sector groups that are also a key to sustainability. Other regional, national and local organizations will also play critical partnership roles with implementation. Key implementing partners and their roles in Year1 activities are described below. Several of these are also project subrecipients and will receive funds to implement a number of tasks outlined in the above workplan activity descriptions.

**Ministry of Maritime Economy, Fisheries, and Maritime Transport (Ministère de l'Économie Maritime-MEM):** MEM has the key responsibility for management of fisheries resources in Senegal. Within MEM, the project will work primarily with the Department of Maritime Fisheries (DPM), which has responsibility for establishing management regulations and local co-management institutions. The project will also work as needed with the Department of Fisheries Processing Industries (DITP, for Direction des Industries de Transformation du Poisson), which plays important roles in seafood export and quality control, and value added processing and packaging; and with the Department of Fisheries Protection and Surveillance (DPSP), which is responsible for monitoring control and surveillance of fishing laws and developing co-surveillance initiatives with local co-management institutions (CLPAs). As requested by the Director of DPM, the lead counterpart within DPM will be the Office for Management and Governance and the lead coordinator the head of this Division.

The **Direction des Pêches Maritimes (DPM)** within MEM is the main beneficiary of the program along with fishing communities. It is the government entity that oversees marine fisheries. As such, it is paramount that a strong partnership be built with them at the onset, with buy in and clearly defined leadership roles. Certain project functions, such as Project monitoring and evaluation, will be based in DPM as part of the Cellule Operationnelle de la Mise en Oeuvre (COMO) for the World Bank-financed portfolio of fisheries investments. DPM will also take the lead in partnership with the project management unit, implementing a number of the initial activities including but limited to:

- Project Launch event
- Donor coordination meetings, and assessing and defining roles of partners
- Workshop to select fisheries stocks for development of management plans
- Assessment of the current legal and institutional framework for co-management, including actions necessary to achieve sustainable financing of the CLPAs, baselining the governance capacity and needs of the CLPAs and CLPs
- Preparation of terms of reference for the fisheries profiles/descriptions
- Endorsement of the MPA national strategy
- Establishment of the project steering committee

The **Ministry of Environment and Protection of Nature** (Ministère de l'Environnement et de la Protection de la Nature) is responsible for management of protected areas including certain coastal and marine parks (La Dirección des Parcs Nationaux-DPN), and for coordinating responses to climate change via the Dirección de l'Environnement et des Établissements Classes-DEEC. Their role in this project is secondary to MEM, but important for the marine conservation and climate change components. During this first year, they will be important in regards to final completion and formal adoption of the National MPA strategy. WWF will coordinate closely with this Ministry on those tasks as well as on the concept of professional MPA staff certification.

**L'Institut Universitaire de Pêche et d'Aquaculture (IUPA):** IUPA is a training and regional research institute within UCAD that focuses on the issues of fisheries and aquaculture. Its mission is to train general managers and high-level specialists in the various fields of science, technology, and management of fisheries, aquaculture and coastal aquatic ecosystems. Their role in the project will be to assist in implementing human resource development strategies, applied research and technical studies, as well as in the development and piloting of a "Sea Grant" like approach to development of management plans and related extension and action research agendas as part of that process. Most of the Sea Grant Activities will be phased in early in Year2. However, IUPA will be involved in a number of critical meetings such as the stock assessment workshop, the workshop on selecting the fisheries stocks for project focus and on developing terms of reference for the subsequent fisheries profiles or descriptions to be undertaken in Year2 where they would play an important role as well.

**Centre de Suivi Ecologique (CSE):** The CSE's mission is to collect, process, analyze and disseminate data and information on an area's natural resources by using spatial technology to improve the management of natural resources and the environment. CSE services include environmental monitoring, natural resource management and environmental studies, mapping and development of information systems and training in geomatics. Other areas of expertise include geographic information systems (GIS), climatology, remote sensing, agriculture, socioeconomics, and hydrology. CSE will be involved in developing GIS databases and maps for the project as well as involvement in a number of technical studies including integrating local ecological knowledge into the characterization of fisheries selected for development of management plans, as well as selected aspects of development of vulnerability assessments and adaptations planning. In Year 1, they will play an important role of spatial mapping of the main fisheries stocks in the country and spatially mapping activities of donor fisheries projects, locations and jurisdictions of existing CLPAs and local government administrations in the project focal areas CSE will also be involved in discussions concerning mainstreaming climate change into fisheries policies as a lead in to the subsequent years activities.

**Centre de Recherches Oceanographiques de Dakar-Thiaroye: (CRODT):** CRODT operates under the Agriculture Research Institute of Senegal (ISRA). Its purpose is to integrate biological, economic and sociological research into the national management of living natural aquatic resources. Its research is conducted within the context of themed study programs, including programs that focus on industrial fishing and trawlers, sardine boats, tuna boats. CRODT also conducts studies on fish stock assessments, artisanal fisheries, the environment and the socio-economics of the Senegalese fishing system. CRODT will lead a summary desk-top review of status of fish stocks and related workshop, an assessment of the fisheries management information systems and needs, as well as involvement in the workshop to select the fisheries stocks for project focus. Subsequent to the selection of fisheries for comprehensive planning, along with IUPA-UCAD and CSE, they will team together to undertake technical studies and assessments concerning the characterization of the selected fisheries value chain assessments and

stock assessments of selected species for management planning, and socio-economic aspects of those fisheries. These activities will be planned in Year1 but will not get underway until Year 2.

**World Wide Fund for Nature (WWF):** WWF’s West African Marine Ecoregion (WAMER) office/program promotes sustainable natural resources management in the West Africa region. Its conservation agenda is people focused—ensuring all interventions respond to local needs and are implemented in full partnership with a broad spectrum of stakeholders from the grass roots to the highest levels of government decision-makers. Its ecosystem-based fisheries management approach seeks to ensure the needs of all life phases of target species are considered rather than focusing uniquely on stock management and quotas; and it promotes integration of fisheries management into a much broader social context addressing issues related to sanitation, reduced pollution marketing, and public awareness. WAMER has helped establish and reinforce sustainable fishing efforts in Senegal through direct technical support in the field and by promoting changes in Senegalese legislation to allow for establishment of CLPAs. WWF is a partner implementing fisheries initiatives for the USAID Wula Nafaa program and is the main implementing partner for URI on the USAID/West Africa Ba Nafaa Project on sustainable fisheries in The Gambia. In this first year, WWF will take lead responsibility for implementation of the management of marine ecosystems component and contribute to important tasks in the institutional strengthening (“The Alliance”, fishermen exchanges, gender assessments, CLPA assessments). In the fisheries planning component, they will be responsible for organizing outputs from the fishermen exchanges field visits and national workshop for presentation at the fisheries stock selection workshop. They will play an important role in identifying stakeholders for participation in this workshop as well. In Year2, they will be involved in facilitating stakeholder planning processes in close coordination with DPM and coordinating with other groups involved in technical work on stocks, socio-economic studies, and spatial mapping of local knowledge, etc. (e.g. CRPODT, IUPA, CSE). WWF will also assist in developing the project’s gender strategy and institutional strengthening strategies for start of implementation in Year2.

**ENDA (Énergie, Environnement et Développement en Afrique):** ENDA works in Senegal and throughout West Africa to strengthen capacity building in climate change and alternative energy. The ENDA Energy participates in the Kyoto Think Global Act Local project, training locals in survey techniques to calculate the carbon sequestered in forests selected. In addition, ENDA helps to develop small businesses in rural areas that promote energy efficiency and renewable energy. I Year1, they will develop a guidebook for local government on vulnerability assessment and adaptation planning that will be used as a basis for subsequent community scale V&As conducted in targeted fishing communities in Year2. They will also be involved in planning for energy value chain of selected fish species.

**Fédération Nationale des GIE de Pêche (FENAGIE):** Since 1990, FENAGIE has been working to strengthen the organizational capacity and technical processing of fisheries products by building infrastructure and production facilities for women, as well as assisting with the establishment of credit lines, and improvement of living conditions for fisheries professionals. FENAGIE also focuses on the introduction of shops selling hardware and fishing accessories, market research of the flow of fish products, and sustainable management of fisheries resources and protection of the marine environment. In Year1, FENAGIE will serve primarily in the capacity of an important stakeholder group involved in many of the assessments and stakeholder meetings to be conducted, in section of fisheries stocks for project focus. In Year 2, once stocks are selected, they would cooperate with CRODT on value chain assessments and then play a leading role in implementing recommendations emanating from those assessments. We expect that the roles and responsibilities on the various groups mentioned above will be further refined as initial work progresses, and that roles of various groups will evolve over time



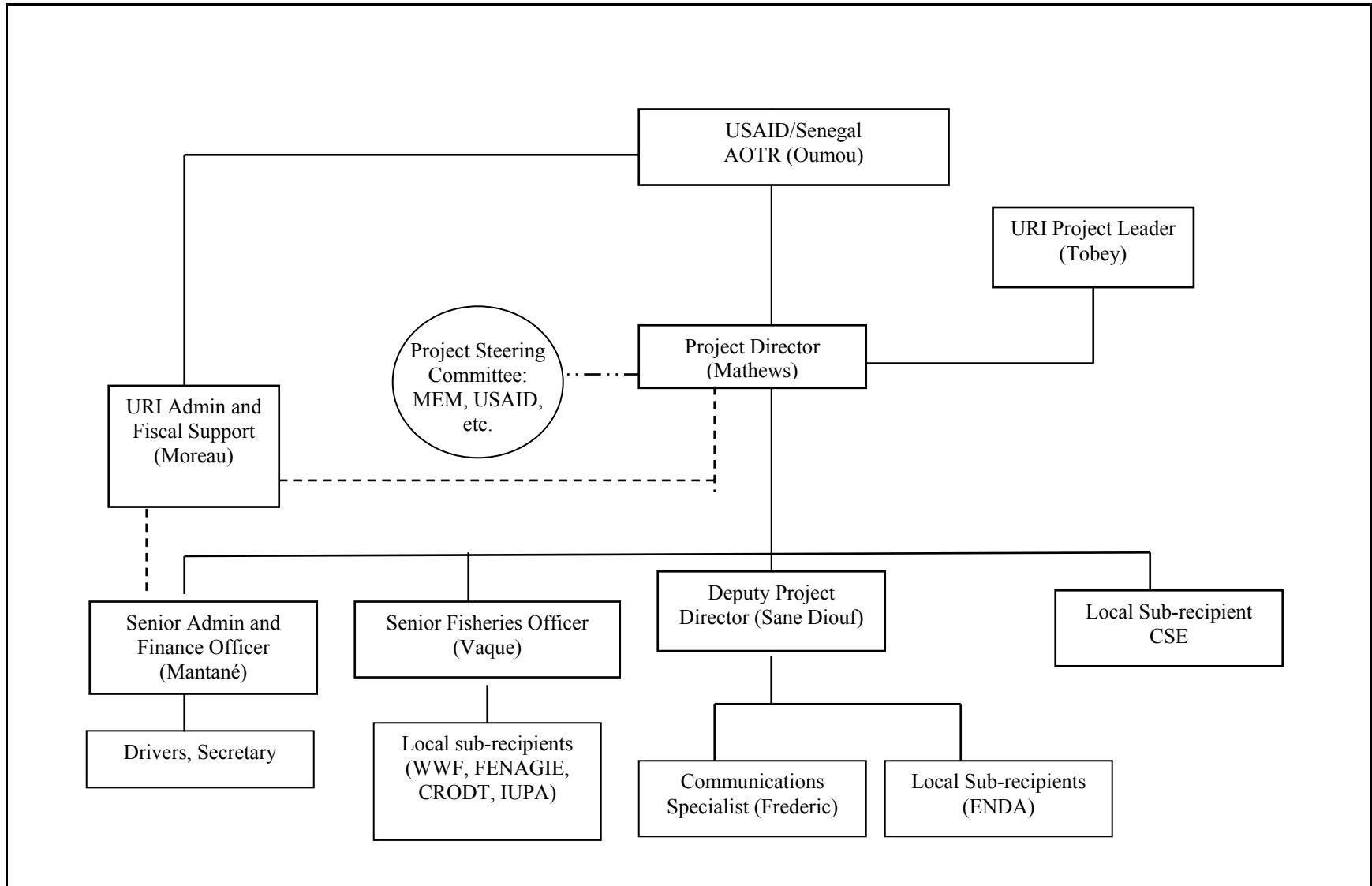
based on priority needs identified and how best these institutions can play a role in addressing those needs. Over time, additional local institutions with useful capabilities and assets may be identified and brought in as additional implementing partners. Partner meetings and retreats will be used to help further refine roles and expectations as well as for team building. While the number of partners may seem large, we believe that an inclusive approach, if well managed, can lead to best results as well as provide experiences and opportunities for learning and institutional development.

#### **4.2 Office Structure, Operational Staffing and Lines of Authority**

The project is implemented by in-country staff under the leadership of a Program Director, located in Dakar at the in-country Program Management Unit (PMU). The PMU office is a legal entity of URI, with highly decentralized authority for financial management including all local purchasing and contracting—with the exception of international and US-based sub-recipients and personnel. Programmatic authorities are also decentralized. The PMU, through its Director, is responsible for implementation of approved annual work plans and achievement of performance targets and serves as the main point of contact for USAID. He also is responsible for preparing annual work plans, progress reports, developing detailed terms of reference for local consultants and partners, and the supervision and management of local personnel. As URI has responsibility for fiscal reporting and meeting the performance result targets, it provides technical and administrative backstopping and oversight to the in-country team as needed. The Figure below depicts the internal operational structure.

Partners are trained in performance monitoring, *TraiNet* reporting, and USAID branding and marking policies as well as environmental compliance procedures. The PMU, with CRC oversight, provide project reports to USAID/Senegal, while URI will submit the official financial reports. Upon request by USAID, the project team also provides unofficial expenditure estimates (accruals) and pipeline analysis. The URI management and technical team provides oversight and support to include but not limited to (1) management oversight of in-country operations working through the in-country Project Director, and (2) technical assistance on various program components.

CRC/URI and other foreign technical specialists report to Dr. James Tobey, who serves as the COMFISH Project Leader in the CRC home office. He will develop their terms of reference in close consultation with the Project Director. However, during in-country assignments, these foreign technical specialists work under the day-to-day direction of the Project Director. Sub-agreements over \$250,000 will be financially managed from URI and smaller sub-contracts managed by the PMU. Key URI technical support will be provided as follows: Dr. Kathy Castro on the Project's component for strengthening enabling conditions and management planning; Brian Crawford on strengthening enabling conditions and a focus on managing marine ecosystems. Local administrative and fiscal support staff will be contracted in-country during the start-up phase and will be trained and backstopped by a CRC/URI administrative team lead by Cindy Moreau, CRC Business Manager. Moreau has 20 years experience in USAID project administration and financial reporting, including conducting internal audits of sub-recipients. Kim Kaine, CRC International Project Support Coordinator, will ensure Project compliance with the *TraiNet* tracking system and USAID branding requirements, and ensure submission of relevant Project documents and materials to the USAID Development Experience Clearinghouse, in close cooperation with the in-country communications specialist.



**Operational Structure of the in-Country Project Management Unit**

USAID/Senegal will be invited to attend the Project work planning sessions and provide inputs to the annual plan and monitoring and evaluation plan (PMP). The Project Director will submit workplans, and annual results targets to the Project’s Agreement Officer’s Technical Representative (AOTR) for review, comment, and approval. USAID will also be invited to other major scheduled events and encouraged to visit the field sites. The Project Director will periodically brief USAID/Senegal on Project progress, challenges and accomplishments.

Regular project management and annual reporting activities are carried out by the CRC and USAID/COMFISH senior management team. Main tasks and report deliverables are:

- Preparation and submission of three (4) quarterly technical reports to USAID/Senegal AOTR (Agreement Officer’s Technical Representative) in both English and French. These are due one month after the end of each quarter according to the USG fiscal year
- The 4th quarter (July-September) quarterly report/annual report will include information specific to that quarter but also include a section which summarizes the year’s accomplishments and challenges. The 4th quarterly/annual report will be longer and more detailed to discuss the achievements of the entire year and contain a table displaying PMP indicator values for the year, along with prior year values and future year targets.
- Quarterly reports will contain Performance Monitoring information and progress toward agreed performance targets. This will include information on program activities undertaken in the reporting period and those planned for the following three (3) months.
- Semi-annual PMP reporting from USAID/COMFISH to CRC
- Collection, analysis and reporting of data to USAID on project indicators and targets for project performance monitoring, submitted annually as part of the combined 4<sup>th</sup> quarter and annual report
- Annual work plan in both English and French submitted by CRC for approval by USAID<sup>1</sup>
- Timely and regular input of data by USAID/COMFISH into the USAID TraiNet system for all Project training activities
- Monthly accounting reports sent from USAID/COMFISH to CRC
- Expenditure reports submitted to USAID from CRC/URI

Work plans and annual project reports will include: 1) a comparison of actual accomplishments with the goals and objectives established for the period, 2) the reasons why goals were met or not met, 3) problems encountered and how they were resolved, and 3) an analysis and explanation of cost overruns or high unit costs, as appropriate.

The schedule for producing the above listed management tasks and reports are provided in the table below.

**Activity Implementation Schedule: Routine Management and Administration**

Activity	2011						Responsible Person
	A	M	J	J	A	S	
<b><i>Routine Reporting</i></b>							
Monthly activity updates to CRC							CM

<sup>1</sup> Specifically, work plans to be submitted to dakar-usaid-ofm-pay@usaid.gov with CC to: Mamadou NIASSE (mniass@usaid.gov), Marame MBAYE (mmbaye@usaid.gov), Babacar DIENG (bdieng@usaid.gov), and Francis CARAYOL (fcarayol@usaid.gov)

Activity	2011						Responsible Person
	A	M	J	J	A	S	
Monthly key staff (in-country office w/CRC) Skype conference calls							JT
Quarterly PMP reporting to USAID							CM/KS
Draft quarterly report to URI for review							JT
Review comments from CRC							JT
Quarterly reports to USAID							CM
Input training data into the USAID TraiNet							KS
Draft quarterly/annual report to URI for review							CM
Review comments from CRC							JT
Annual report to USAID						Oct	CM
Stakeholder progress reporting and annual planning							CM
Work plan to USAID							JT
Work plan approval by USAID							OFM
<b>Financial Management</b>							
Monthly account reports from in-country to CRC							CM
Expenditure (accrual) reports to USAID from CRC/URI							CM2
SF425 quarterly financial reporting to DHHS & AO & AOTR							URI accounting/ CM

CM – Chris Mathews, KS – Khady Sane Diouf  
 JT-Jim Tobey (CRC), CM2-Cindy Moreau (CRC)  
 OFM – USAID Office of Financial Management

### 4.3 Coordination with other Donors and Initiatives

There are several related projects and programs ongoing in Senegal that are important to coordinate with over the life of the USAID/COMFISH Project. The Project will establish a Steering committee of representatives from the USAID/COMFISH's main partners including local implementation partners from government agencies (e.g. MEM), NGOs and civil society organizations and key donors (e.g. USAID, World Bank) involved in the fisheries sector, including especially the Groupe Thématique Pêche. The Committee will participate in annual progress reviews, comment and advise on annual workplans, and meet at least once annually. The steering committee will assist in defining the strategic orientations of the Project and help ensure coherence and synergy across the activities of the organizations involved in the Project. The steering committee of the project will consist of individuals/organizations that can enhance the support for the project. This group can be the champions of the project at high levels of government and in particular provide important channels of communication and advice concerning strategy on policy reform. Where appropriate, the Project will also request to participate in or provide Project updates to the existing donor coordination group on fisheries (Groupe Thématique Pêche) that meets monthly.

### Activity Implementation Schedule

Activity	FY 2011		Local Implement. Partners	Lead In-country	External Team
	Q3	Q4			
Determine membership and establish project steering committee	June		USAID	TL	NA
First meeting of steering committee		July	USAID	TL	NA
Participate in donor fisheries coordination group meetings	X	X	USAID	TL	NA

#### 4.4 Performance Management, Evaluation and Learning

Following USAID ADS 203 guidance, a Results Framework (RF) and Performance Management Plan (PMP) accompanies this workplan. The main purpose of the PMP is to assess whether activities are leading to intended results. The PMP serves as the basis for continual assessment and adaptive management of the project design and implementation, for generalized learning on ecosystem management, and for reporting results to USAID.

The goal is to design an M&E system that draws upon the principles of adaptive-management. USAID/COMFISH will use indicators that are valid, reliable, precise, measurable, timely, and programmatically important. The Program’s PMP results framework and indicators are closely linked to USAID/Senegal program objectives and Feed the Future objectives. Indicators will be monitored and reported in work plans and annual reports.

Semi-annual partner meetings are held that serve to coordinate activities. The project also holds an annual work planning workshop as well. At these, partners discuss key accomplishments, challenges, lessons learned, and plan the next year’s activities. These are good opportunities for all stakeholders to gather and assess progress towards producing results. The Deputy Director will serve as the field based PMP coordinator and will keep records and evidence files and conduct quality control and assurance procedures.

Activity	FY 2011		Local Implement. Partners	Lead In-country	External Team
	Q3	Q4			
Semi annual partner meeting, learning retreat and annual work planning w/ implementing partners, USAID and selected other donor projects invited as appropriate		July	all	TL	Tobey
Quarterly PMP reporting to USAID	X	X	all	TL	Tobey

The project results framework and indicators for each result area are provided in Appendix 1, which also summarizes Year 1 and life-of-project targets. The specific results, targets and indicators to be monitored will be reviewed annually to determine if the targets and/or project strategy need adjustment based on implementation experience.

#### 4.5 Environmental Monitoring and Compliance

A draft Initial Environmental Examination (IEE) is submitted with this initial workplan. Screening procedures and forms are provided as part of the IEE to ensure no significant environmental impacts are occurring for those actions or projects which are identified as possibly

causing minor environmental impacts. In Year 1, almost all of the activities fall under categorical exclusions (e.g. trainings, meetings, assessments, surveys).

#### 4.6 *Branding*

The USAID/COMFISH Project provides information through many channels. This includes through presentations at meetings, conferences, outreach sessions and other forums as well as through print media—e.g., 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. Items produced and type of marking expected is shown in the following table.

**Synopsis of Planned Communication Items Affected by USAID Marking/Branding Regulations (ADS 320/AAPD 05-11) in Year 1**

<b>Item</b>	<b>Type of USAID marking</b>	<b>Marking Code</b>	<b>Locations affected/ Explanation for any ‘U’</b>
Press materials and success stories	USAID logo (co-branded as appropriate)	M	Primarily a Senegalese audience
Project brief/fact sheet	USAID logo (co-branded as appropriate)	M	Primarily a Senegalese audience
PowerPoint presentations at meetings, workshops and trainings	USAID logo (co-branded as appropriate)	M	Primarily a Senegalese audience
Brochures/posters/T-shirts/caps	USAID logo (cobranded where/as appropriate)	M	Primarily a Senegalese audience
Technical Reports	USAID logo (cobranded where/as appropriate)	M	Primarily a Senegalese audience
Project Office in Dakar	Project sign in English and French but no USAID identity	U	Primarily a Senegalese audience
Project vehicles, office furnishings, computer equipment. purchased for project administration	No USAID identity used	U	Standard exclusions under USAID marking guidelines/policies

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

#### 4.7 *International Travel Schedule*

The following table is illustrative to show dates and purposes for all international travel budgeted by the Project during the first year of implementation. Travel of any CRC international consultants is subsumed under CRC-URI. International trips budgeted for the first year of the Project is provided below.

MONTH	Traveler and Purpose
April	Chris Mathews arrives in country to assume long-term post as Chief of Party/Project Director
May	Fishermen exchanges and initial field work on fishermen inputs to priorities and needs - Castro
June	No international travel planned
July	Legal and institutional assessment – Nixon/Karp Fish stock assessment workshop – Castro and Collie Gender assessment and strategy – Hall-Arbour Partner meeting – Tobey National fishermen’s meeting – Castro and additional staff
August	Fish stock selection workshop, terms of reference development for fisheries profiles/characterizations – Crawford, Castro and URI Fisheries Center spec. Preparation of terms of reference for value chain assessments, climate change work and fisheries -Tobey
September	Year 2 work plan writing and submission to USAID - Tobey, Moreau

## 5. Budget

<b>Year One Budget by Program Element</b>	<b>Request</b>	<b>Cost Share</b>	<b>Total</b>
Project Start Up	281,835		281,835
			\$
Institutional Capacity Building	187,665	51,869	239,533
Fishery Management Planning	522,103	159,855	681,959
Enhanced Artisanal Fisheries Value Chains	68,433		68,433
Climate Change Vulnerability Assessments and Adaptation	88,120		88,120
Managing Marine Ecosystems	23,299	83,711	107,011
Communications	100,251	13,946	114,197
<b>Total</b>	<b>\$1,271,707</b>	<b>\$309,381</b>	<b>\$1,581,088</b>

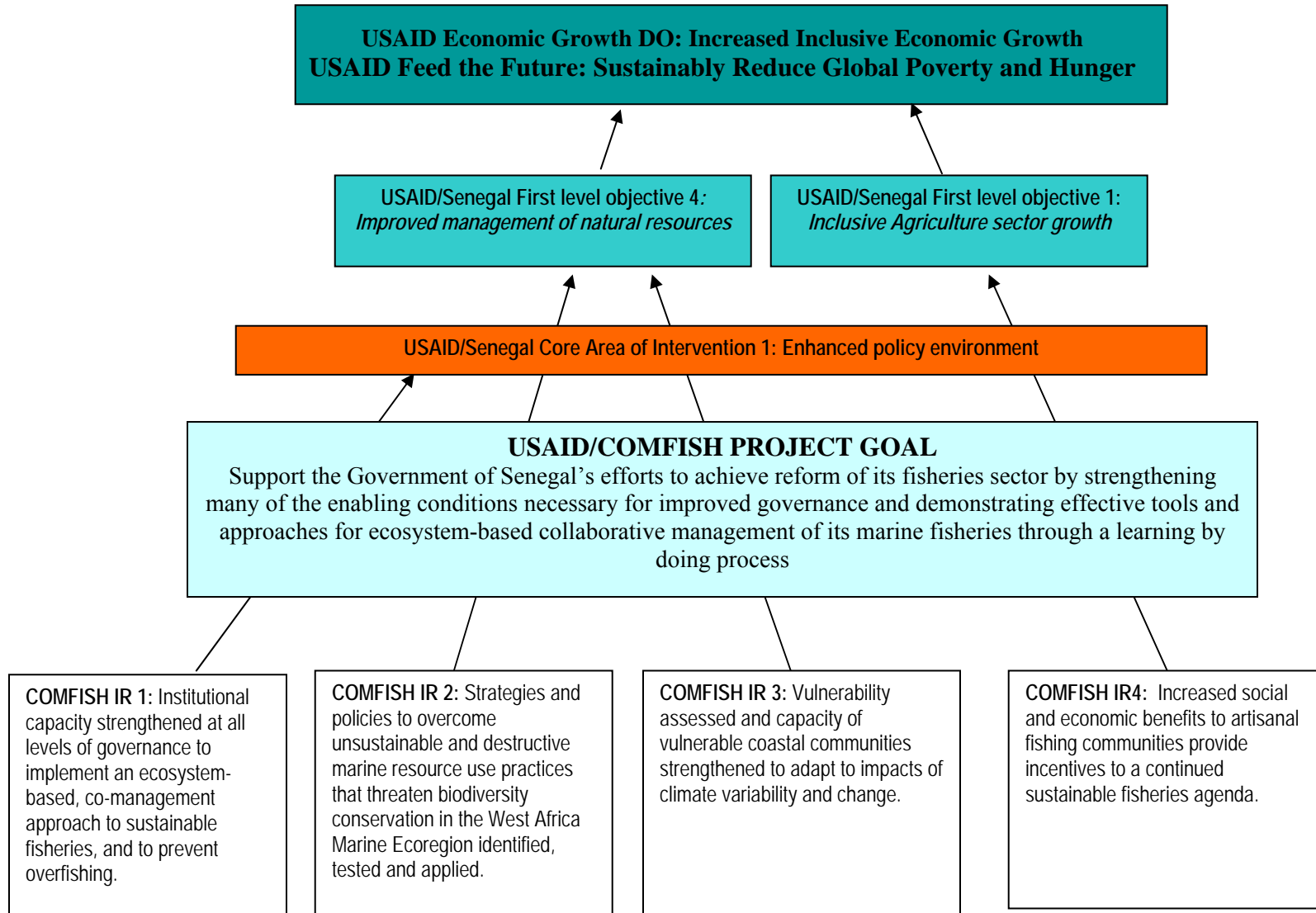
<b>Year One Budget by Object Class Category</b>	<b>Request</b>	<b>Cost Share</b>	<b>Total</b>
URI Personnel	112,191	107,214	219,405
URI Fringe	49,249	48,247	97,495
In country staff and consultants	366,097	45,000	411,097
Subcontracts	143,402	68,500	211,902
Other direct costs	188,706		188,706
Travel	113,308		113,308
Capital Equipment	70,071		70,071
Total Direct Costs	1,043,024	268,961	1,311,985
Indirect	228,683	40,420	269,103
<b>Total</b>	<b>\$1,271,707</b>	<b>\$309,381</b>	<b>\$1,581,088</b>



## **Appendix 1. Performance Management Plan and Targets**

**Figure 1: USAID COMFISH Results Framework**

The Results Framework below shows the overall intersection of COMFISH Intermediate Results (IR) with the Feed the Future Framework/Senegal. Each IR has one or more indicators and LoP Targets that are shown in the table on the following pages. Targets will be reviewed and adjusted annually.



### USAID COMFISH Performance Indicators and Life of Project Results

Indicator	LOP Targets	Year 1 Targets Feb-Sept 2011
<b>IR 1: Institutional capacity strengthened at all levels of governance to implement an ecosystem-based, co-management approach to sustainable fisheries, and to prevent overfishing.</b>		
<p>1. Number of institutions/organizations undertaking capacity/competency strengthening as a result of USG assistance (FTF indicator 4.5.1-8)</p>	<ul style="list-style-type: none"> <li>• 15 CLPAs strengthened (This represents 50% of the Government of Senegal’s target total number of CLPAs)                Petite Cote: Sindia, Mbour, Joal                Cap Vert: Cayar, Hann, Pikine, Rufisque-Bargny, Yenne-Dialao                Saloume: Fimela, Djifer, Niodior, Foundiougne, Missirah, Toubacouta, Sokone</li> <li>• CLPs strengthened – Cayar and others in Central region to be determined</li> <li>• 2 regional co-management committees formed and undertaking capacity strengthening (large scale institutions for fisheries management plans)</li> </ul>	0
<p>2. Number of CLPA’s capable of functioning properly at USAID/COMFISH project sites</p> <p>This is a synthetic index measured by performance in the following areas:</p> <ul style="list-style-type: none"> <li>• Agreement on and clear definition of objectives</li> <li>• Participation in and commitment to co-management by all partners</li> <li>• Co-management arrangements where fishers are officially granted greater empowerment concerning decisions on management measures and ability to self enforce</li> <li>• Strategies for managed access including possible reduction in fishing effort if considered essential for</li> </ul>	<ul style="list-style-type: none"> <li>• At least 3 CLPA’s meet COMFISH criteria of functionality</li> </ul>	Index created

Indicator	LOP Targets	Year 1 Targets Feb-Sept 2011
the management of targeted fisheries systems, and agreed on by stakeholders <ul style="list-style-type: none"> <li>• Sustainable financing mechanisms strengthened</li> <li>• Management authority is clearly delegated</li> <li>• Clear definition of geographic jurisdiction</li> <li>• Participatory surveillance strengthens compliance with fishing boat registration and licenses</li> </ul>		
3. Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (FTF indicator 4.5.2-7)	<ul style="list-style-type: none"> <li>• Over 2,000 individuals trained</li> </ul>	0
<b>IR 2: Strategies, policies and best practices to overcome unsustainable and destructive marine resource use practices that threaten biodiversity conservation in the West Africa Marine Ecoregion identified, tested and applied.</b>		
4. Number of new technologies or management practices made available for transfer as a result of USG assistance (FTF indicators 4.5.2-8 )	<ul style="list-style-type: none"> <li>• To be defined in YR1</li> </ul>	0
5. Number of new technologies or management practices under field testing as a result of USG assistance (FTF indicators 4.5.2-9 )	<ul style="list-style-type: none"> <li>• To be defined in YR1</li> </ul>	0
6. Number of new technologies or management practices under research as a result of USG assistance (FTF indicators 4.5.2-10 )	<ul style="list-style-type: none"> <li>• To be defined in YR1</li> </ul>	0
7. Number of private enterprises, producer organizations, trade and business associations and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance. (FTF indicator 4.5.2-28)	<ul style="list-style-type: none"> <li>• To be defined in YR1</li> </ul>	0
8. Number of policies/regulations/ administrative procedures <b>analyzed</b> (FTF indicators 4.5.1-9)  (Stage 1 of 5), each measuring a successive stage in the	<ul style="list-style-type: none"> <li>• To be defined in YR1</li> </ul>	<ul style="list-style-type: none"> <li>• Fishery(s) selected and analyzed for dev. of co-mgt plans &amp; MSC</li> </ul>

Indicator	LOP Targets	Year 1 Targets Feb-Sept 2011
progression from analysis to implementation		certification • Issues concerning CLPA financing via registration fees analyzed
9. Number of policies/regulations/ administrative procedures <b>drafted and presented for public/stakeholder consultation</b> (FTF indicators 4.5.1-10)  (Stage 2 of 5), each measuring a successive stage in the progression from analysis to implementation	• To be defined in YR1	0
10. Number of policies/regulations/ administrative procedures <b>presented for legislation/decreed</b> (FTF indicators 4.5.1-13)  (Stage 3 of 5), each measuring a successive stage in the progression from analysis to implementation	• To be defined in YR1	0
11. Number of policies/regulations/ administrative procedures <b>prepared with USG assistance passed/approved</b> (FTF indicators 4.5.1-12)  (Stage 4 of 5), each measuring a successive stage in the progression from analysis to implementation	<ul style="list-style-type: none"> <li>• 2 fisheries co-management plans (locations TBD) formally approved</li> <li>• 1 fishery with MSC certification</li> </ul>	0
12. Number of policies/regulations/ administrative procedures <b>passed for which implementation has begun</b> (FTF indicators 4.5.1-11)  (Stage 5 of 5), each measuring a successive stage in the progression from analysis to implementation	• Administrative procedures implemented for CLPA financing via share of license fees	0

Indicator	LOP Targets	Year 1 Targets Feb-Sept 2011
13. Number of farmers and others who have applied new technologies or management practices as a result of USG assistance (FTF indicator 4.5.2-5)	<ul style="list-style-type: none"> <li>38,275 fishers (estimated number of fishermen in the Central Region departments of Dakar, Rufisque, Mbour, Fatick and Foundiougne as per CRODT, 2005 and as reported in WWF, 2006. This represents 64% of all fishers in Senegal.) Actual number of fishers will be determined by management units/stocks selected for management and number of fishermen involved in those fisheries.</li> </ul>	0
14. Number of additional hectares under improved technologies or management practices as a result of USG assistance (FTF indicator 4.5.2-2)	TBD based on fish stocks selected for co-management and areas for MPA strengthening	0
<b>IR 3: Vulnerability assessed and capacity of vulnerable coastal communities strengthened to adapt to impacts of climate variability and change</b>		
15. Number of people receiving training in global climate change as a result of USG assistance (USAID FACTS Climate Change indicator 4.8.2-6)	<ul style="list-style-type: none"> <li>700</li> </ul>	0
16. Number of climate vulnerability assessments conducted as a result of USG assistance (USAID FACTS Climate Change indicator 4.8.2-11)	<ul style="list-style-type: none"> <li>6 vulnerability assessments</li> </ul>	0
17. Number of laws, policies, agreements, or regulations addressing climate change proposed, adopted, or implemented as a result of USG assistance (USAID FACTS Climate Change indicator 4.8.2-4)	<ul style="list-style-type: none"> <li>6 adaptation plans developed and approved</li> </ul>	0
18. Number of coastal inhabitants and fisheries stakeholders with increased adaptive capacity and reduced vulnerability to harm from actual or expected climatic changes or their impacts  Number of people with increased capacity to adapt to the	<ul style="list-style-type: none"> <li>Over 120,000 community members benefiting from adaptation plans and measures (6 communities with an average of 2,000/community)</li> </ul>	0

Indicator	LOP Targets	Year 1 Targets Feb-Sept 2011
impacts of climate variability and change as a result of USG assistance (USAID FACTS Climate Change indicator 4.8.2-7)		
<b>IR 4: Increased social and economic benefits to artisanal fishing communities provide incentives to a continued sustainable fisheries agenda</b>		
19. Number of rural households benefiting directly from USG interventions (FTE indicator 4.5.2-13)	<ul style="list-style-type: none"> <li>20,000 fishing households benefiting (actual number of households will be determined by management units/stocks selected for management and number of fishing households involved in those fisheries). At an average of 10 per household, this represents 200,000 people.</li> </ul>	0
<p>20. Fishery sector stakeholders in project sites perceive that their welfare is better off due to USG assistance (this is not an FTF indicator, but measures project impact)</p> <p>A baseline survey of fishery stakeholders will be conducted, and at mid-project and end of project, the same survey instrument will be administered.</p>	<ul style="list-style-type: none"> <li>Fisheries stakeholders at the project sites perceive they are better off due to USG assistance compared to non-project sites without other donor efforts</li> </ul>	Baseline to be established at start of YR2