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ECOSYSTEMS IMPROVED FOR
SUSTAINABLE FISHERIES
(ECOFISH) PROJECT

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FIRST YEAR WORK PLAN (01 JULY 2012 – 30 SEPTEMBER 2013)

ECOFISH Document No.: 02/2013

Version: Final

Implemented with:

Department of Agriculture-Bureau of Fisheries and Aquatic Resources
National Government Agencies
Local Government Units
Assisting Organizations

Supported by:

United States Agency for International Development
Contract No.: AID-492-C-12-00008

Managed by:

Tetra Tech ARD

10 January 2013

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The author views expressed in this document do not necessarily reflect the view of the United States Agency for International Development or the United States Government.

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Abbreviations and Acronyms

ADB	-	Asian Development Bank
APM	-	Advanced Participation Methods
ASG	-	Ateneo School of Governance
BAS	-	Bureau of Agricultural Statistics
BFAR	-	Bureau of Fisheries and Aquatic Resources
CBA	-	Cost Benefit Analysis
CBMS	-	Community Based Monitoring Survey
CBO	-	Community-Based Organization
CCA	-	Climate Change Adaptation
CCEF	-	Coastal Conservation Education Foundation
CFRM	-	Coastal and Fisheries Resources Management
COP	-	Chief of Party
COR	-	Contracting Officer's Representative
CTI	-	Triangle Initiative
CRM	-	Coastal Resource Management
CNFIDP	-	Comprehensive National Fisheries Industry Development Plan
CSR	-	Corporate Social Responsibility
DA	-	Department of Agriculture
DAP	-	Development Academy of the Philippines
DCOP	-	Deputy Chief of Party
DENR	-	Department of Environment and Natural Resources
DILG	-	Department of Interior and Local Government
DOF	-	Department of Finance
DTI	-	Department of Trade and Industry
EAFM	-	Ecosystem Approach to Fisheries Management
ECOFISH	-	Ecosystems Improved for Sustainable Fisheries
EO	-	Executive Order
EwE	-	Ecopath with Ecosim
FISH	-	Fisheries Improved for Sustainable Fisheries Project
GAD	-	Gender Analysis and Development
GCM	-	Growth, Control and Maintenance Mechanism
GPH	-	Government of the Philippines
ICM	-	Integrated Coastal Management
IEC	-	Information, Education and Communication
IRR	-	Implementing Rules and Regulations
LGU	-	Local Government Unit
LMP	-	League of Municipal of the Philippines
MARINA	-	Maritime Industry Development Authority
MERF	-	Marine Environment Resources Foundation
MDC	-	Mayors Development Center
MKBA	-	Marine Key Biodiversity Area
MIS	-	Monitoring Information System
MOA	-	Memorandum of Agreement

MOU	-	Memorandum of Understanding
MPA	-	Marine Protected Area
MSY	-	Maximum Sustainable Yield
NCC	-	National Coordinating Committee
NCPAG	-	National College for Public Administration and Governance
NEDA	-	National Economic and Development Authority
NFARMC	-	National Fisheries and Aquatic Resource Management Council
NFI	-	National Fisheries Institute
NFR	-	NGOs for Fisheries Reform
NGA	-	National Government Agencies
NGO	-	Non-Government Organizations
NSAP	-	National Stock Assessment Program
OECC	-	Office of Energy and Climate Change
PEMSEA	-	Partnerships in Environmental Management for the Seas of East Asia
PCRA	-	Participatory Coastal Resource Assessment
PDP	-	Philippine Development Plan
PES	-	Payment for Ecosystem Services
PNPA	-	Philippine National Police Academy
PNP	-	Philippine National Police
PPP	-	Public Private Partnership
PRIMEX	-	Pacific Rim Innovation and Management Exponents, Inc.
PSC	-	Philippine Safety College
QRT	-	Quick Response Team
REECS	-	Resources Environment and Economics Center for Studies Inc.
SAF	-	Special Activities Fund
SCTR	-	State of the Coral Triangle Report
SEAFDEC	-	Southeast Asia Fisheries Development and Educational Center
SGIDS	-	Senior Governance and Institutional Development Specialist
TWG	-	Technical Working Group
UNEP-GEF	-	United Nations Environment Programme - Global Environment Facility
UPVFI	-	University of the Philippines in the Visayas Foundation
USAID	-	United States Agency for International Development
US DOI	-	United States Department of Interior
WWF	-	World Wildlife Fund

1. Introduction

The technical assistance and services contract was awarded to Tetra Tech - ARD for the implementation of USAID/Philippines' Ecosystems Improved for Sustainable Fisheries (ECOFISH) Project in June 29, 2012, under contract number AID-492-C-12-00008. The main objective of the ECOFISH Project is to improve the management of important coastal and marine resources and associated ecosystems that support local economies. The ECOFISH Project is intended to foster fishing sector reforms through the application of the Ecosystem Approach for Fisheries Management (EAFM) in larger marine conservation areas and involving clusters of Local Government Units (LGUs). It will promote the growth and restore the profitability of fisheries through conservation of ecosystem health and effective management.

The ECOFISH Project is in line with the current U.S. Country Assistance Strategy with respect to assistance directed at reducing threats to biodiversity and improving natural resources and environment. It is also expected to contribute to achieving "Development Objective 3: Environmental Resilience Improved" (particularly "IR1.3. Natural Resources and Environmental Services Improved") of the proposed results framework for the planned USAID/Philippines Mission's Country Development Cooperation Strategy. The ECOFISH Project is also designed to contribute to priority goals and actions laid out in the Philippine Development Plan (2011-2016) particularly Chapter 4 (Competitive and Sustainable Agriculture and Fisheries), and Chapter 10 (Protection, Conservation and Rehabilitation of Environment and Natural Resources). This five-year project will provide technical assistance to the Government of the Philippines (GPH), through the Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR) and implemented in partnership with selected LGUs.

This Year 1 Work Plan presents activities/interventions during the first year of ECOFISH project implementation covering the period 01 July 2012 to 30 September 2013. It likewise describes strategies and start up activities in engaging implementation partners, as well as entry points in engaging the national partners and local government partners in the eight MKBAs. This initial five-quarter coverage will enable the project to adjust to USAID fiscal year of reporting. Subsequent annual work plans will cover a standard four quarters cycle.

2. Project Objectives

The main objective of the ECOFISH Project is to improve the management of important coastal and marine resources and associated ecosystems that support local economies. It will conserve biological diversity, enhance ecosystem productivity and restore profitability of fisheries in eight marine key biodiversity areas (MKBAs) using ecosystem approaches to fisheries management (EAFM) as a cornerstone of improved social, economic and environmental benefits.

The application of EAFM principles and practices is a proven approach for reversing the decline of fish biomass in municipal waters and build community resilience. EAFM aims to manage fisheries at ecosystem scales rather than the scales defined by jurisdictional boundaries. Effective collaborative governance arrangements for EAFM provides the multiple benefits of improving

ecosystem management, reducing the unit costs of management, and making the establishment of sustainable financing mechanisms and public-private partnerships (PPPs) more feasible and attractive to investors. Development of PPPs is a key strategy of the Philippine Development Plan.

The ECOFISH Project is designed to make an impact on eight (MKBA) in the country (Figure 1), namely: (1) the Calamianes Group of Islands MKBA, (2) Lingayen Gulf MKBA, (3) Ticao Pass – Lagonoy Gulf - San Bernardino Strait MKBA, (4) Danajon Reef MKBA, (5) South Negros MKBA, (6) Surigao del Sur and Surigao del Norte MKBA, (7) Sulu Archipelago MKBA, and (8) Verde Island Passage MKBA. They represent all six marine bio-regions of the Philippines and were selected due to their extremely high need for marine biodiversity conservation. These areas are marine ecosystem “hotspots” in the Philippines that mirror the common issues impacting capture fisheries locally and nationally, namely:

- loss of marine biodiversity;
- declining fish stocks;
- high population growth;
- limited private sector investment;
- inconsistent policies and programs for sustainable fisheries; and
- weak institutional and stakeholder capacity to plan and implement fisheries management.

Although majority of project activities will cut across these eight MKBAs, implementation strategies, focus, priorities, and level of engagements may differ from place to place mainly because each MKBA has unique ecosystem features, opportunities, and threats. Table 1 shows the general ecosystem features, opportunities and threats in the eight MKBAs.

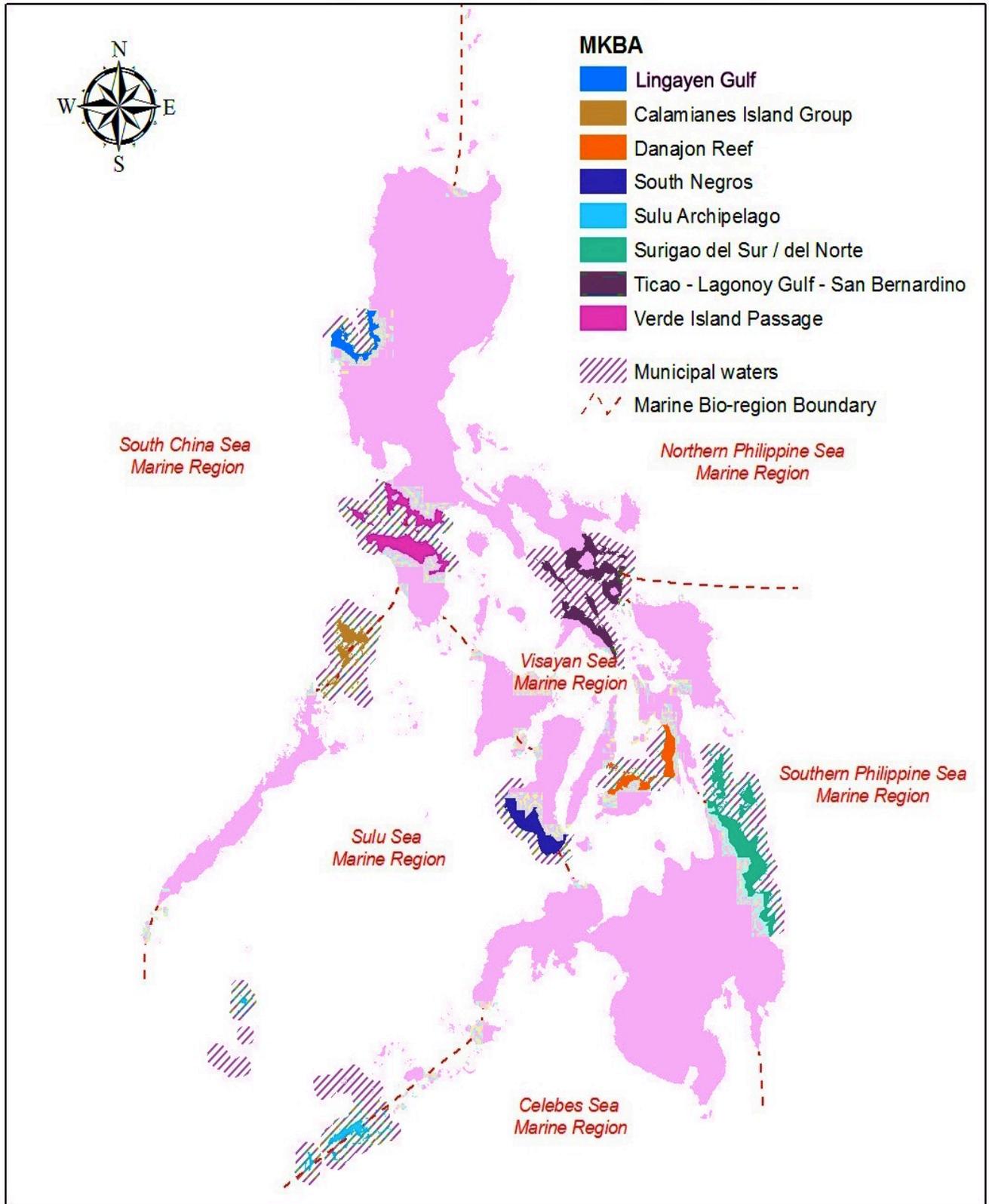


Figure 1. Map of the Eight Marine Key Biodiversity Areas (MKBA) of ECOFISH

Table 1. Summary of Ecosystem Features, Opportunities, and Threats in the Eight MKBAs

MKBA	Ecosystem Features	Opportunities	Threats
Calamianes Island Group	70 percent of the coral and seagrass species recorded in the Philippines	Take advantage of focus on MPA management to support ecotourism and economic alternatives; Collaborate and leverage work at CTI demonstration site.	Destructive fishing and uncontrolled live fish trade; one weak LGU reduces impact of LGU inter-alliance's activities.
Lingayen Gulf	Extensive coral reef, seagrass, and soft bottom community supporting the rich fishing ground	Ability to identify specific protection and management interventions from long-term fisheries data sets; leverage high awareness due to past environmental programs to implement EAFM activities.	Severe overfishing and poor water quality in mariculture areas resulting in fish kills; Lack of LGU inter-alliances.
Danajon Reef	One of the three double barrier reefs in the Indo-Pacific	Take advantage of strong provincial and municipal buy-in of CRM programs to further EAFM goals. Strong LGU alliances.	High fish demand lead to high fishing pressure and illegal fishing
South Negros Island	Deep water harbors large and small pelagic fishes	Begin to formalize and develop EAFM activities by building on long history of community-based marine protected areas.	No comprehensive assessment of capture fisheries; Lack of inter-LGU alliances.
Sulu Archipelago	Rich ecosystem with massive network of coral reefs, seagrass beds, and mangroves	Collaborate and leverage work at CTI demonstration site; begin the capacity building by capitalizing on increasing awareness on coastal and fisheries resource management.	Still weak management and law enforcement and lack of formal inter-LGU alliance's agreements; unsustainable support from some local governments.
Surigao del Sur and Surigao del Norte	Extensive deep water and shallow water coral reef, seagrass, and soft bottom resources	Take advantage of strong inter-LGU alliances to leverage and increase fisheries interventions.	Upland erosion and siltation from mine tailings of nearshore habitats.
Ticao Pass - San Bernardino - Lagonoy Gulf	Diverse small pelagic resources; important habitat for dolphins, dugongs, and whale sharks	Utilize long-term data for Lagonoy Gulf and Sorsogon Bay to identify specific interventions; take advantage of active university involvement to participate in project and development employment from growing marine ecotourism sector.	Steep declines in fish stocks; encroachment of commercial vessels; complex marine ecosystem; lack of LGU inter-alliances.
Verde Island Passage	Considered the "center of the center" the world's fish diversity	Long-term marine conservation initiatives by NGOs; CTI demonstration site	Encroachment of commercial vessel, use of cyanide in aquarium fish collection

3. Coordination and Collaboration Requirements with Partners

The direction, guidance and support of USAID/Philippines, particularly its Office of Energy, Environment and Climate Change (OECC), is essential to successful implementation of the 1st Year project work plan and the attainment of the first year project objectives. Critical guidance and support during this period will be particularly needed in the following areas:

- Coordination of work programs/objectives and streamlining of reporting requirements with relevant government agencies through an implementing mechanism that will be established under the Assistance Agreement of GPH-USG for Environment, Water and Climate Change Programs.
- Establishment of the ECOFISH Technical Working Group (ECOFISH-TWG) under the auspices of the Environment Project Steering Committee to be co-chaired by DA-BFAR and USAID, and catalytic participation in its coordination/collaboration functions across relevant government agencies and partners.
- Representation in strategic activities and partnerships (e.g., alliance-building, PPPs, IEC) requiring entities/signatories beyond the lifespan/scope of the ECOFISH project.
- Coordination and collaboration across relevant programs/projects within USAID at national, regional (e.g., CTI), and global (e.g., biodiversity, economic growth) levels, as well as those of other donor agencies (e.g., ADB, GIZ).

In the year 1 implementation of the project, the start up activities will be crucial in ensuring that all development partners will not just be officially on board but, more importantly, will already be involved in detailed planning of project interventions and supporting activities of the project at various levels. The support of DA-BFAR at the national level will be crucial in moving forward policy instruments to implement EAFM; and at the regional and provincial levels for implementing the suite of activities the project intends to implement in the MKBAs. Also, dialogues with other agencies such as the DENR, DILG, DOF, and DBM will have to be initiated at this early stage to define their roles and ultimately get their support for targeted activities covered in their respective mandates.

In the eight MKBAs, ownership by local governments of the project is crucial and has to start with the recognition by local government executives of the need to manage their fisheries and coastal resources, as well as a good understanding of the objectives of the project. The private sector in the area will have key contributions to ECOFISH initiatives and should start with the common understanding that they are going to be part of the solutions rather than the causes of the problem.

However, there are critical assumptions for the success of implementing the year 1 work plan that are beyond the control of the project, namely:

- The 2013 local election will result into getting supportive local government officials as partners in fisheries and coastal resources management initiatives
- Climate change impacts will be at manageable levels and will not have adverse effects on the expected biophysical and economic targets of the project
- External activities like mining, siltation from uplands and runoff from agriculture and built-up areas will not adversely affect the biological targets of the project
- There is a critical mass of private sector entities in the MKBAs

4. General Annual Work Plan – Year 1

At the end of five years, the 13 ECOFISH project deliverables are expected to lead to the following key results:

- A) An average of 10% increase in fisheries biomass across the eight MKBAs.
- B) A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project.
- C) Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management.
- D) Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating.
- E) One million hectares of municipal marine waters under improved management.
- F) A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management.

Table 2 presents the main relationship between the 13 deliverables and the six key results. Deliverables leading to Results C and D build the foundation for project activities. Those for Results E and F drive the implementation at the MKBA level, and taken together they attain the overall ECOFISH Results of A and B.

Guided by the LOP work plan (ECOFISH Document No.:01/2012), this document describes the host of activities/interventions during the first year of ECOFISH implementation, from 01 July 2012 to 30 September 2013. Major thrusts for this period includes the following:

- Mobilize project resources and formalize engagement with implementation partners
- Establish offices and recruit staff in Manila, Cebu and the eight MKBAs
- Develop Life of Project Work Plan, Year 1 Work Plan, and Performance Monitoring Plan
- Establish ECOFISH Technical Working Group
- Conduct baseline assessment
- Develop institutional arrangements with stakeholder groups in each MKBA
- Initiate early fisheries management actions in each MKBA
- Commence policy reviews and initiate collaborative arrangements for national policy improvements
- Develop constituency building strategies

Table 2. Main Relationship between Project Deliverables and Key Results

Tasks	Deliverables	Results	
		<p>Result A. An average of 10% increase in fisheries biomass across the eight MKBAs.</p> <p>Result B. A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project</p>	Final Outcomes
<p>Task 1. Establish and Implement a National Training Program</p> <p>Task 2. Provide Technical and Advisory Support at the National Level</p> <p>Task 3. Create Public-Private Partnerships</p>	<p>Deliverable 1. Policy Studies on EAFM, MPA, and Climate Change</p> <p>Deliverable 2: Toolkits, Sourcebooks, and Case Studies on EAFM, MPA, and Climate Change</p> <p>Deliverable 3: A National Database on EAFM Established Using the Annual Monitoring Data in the 8 MKBAs</p> <p>Deliverable 4: State of the Marine Resources Report</p> <p>Deliverable 5: National, Regional and Municipal EAFM Trainings Conducted</p> <p>Deliverable 6: Public-Private Partnerships Supporting ECOFISH Objectives Established</p>	<p>Result C. Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management.</p> <p>Result D. Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating</p>	Build Foundation
<p>Task 4. Provide Technical and Advisory Support at the Local Level</p> <p>Task 5. Develop a Registry of Users of Municipal Fishing Waters</p> <p>Task 6. Identify and Implement Sustainable Financing Programs to Support EAFM Projects</p> <p>Task 7. Establish a Baseline on Coastal and Marine Resources and Relevant Socio-economic Information, Develop and Apply Metrics on Monitoring EAFM Implementation in Target MKBAs</p>	<p>Deliverable 7: Bio-physical, Social and Economic Baseline Assessments of the 8 MKBAs</p> <p>Deliverable 8: Scientific Studies on Select MKBA- Specific Fish Species</p> <p>Deliverable 9: MPA Network Analyses in the 8 MKBAs</p> <p>Deliverable 10: Fisheries Management Plans of Select Inter-LGU Alliances in the 8 MKBAs</p> <p>Deliverable 11: Registry of Users of Municipal Fishing Waters Established in Select Municipal LGUs in the 8 MKBAs</p> <p>Deliverable 12: Revenue Generation System for Fisheries Management Established and Effectively Implemented in Select LGUs</p> <p>Deliverable 13: Sustainable Financing Programs for EAFM Implemented in Select LGUs in the 8 MKBAs</p>	<p>Result E. One million hectares of municipal marine waters under improved management.</p> <p>Result F. A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management.</p>	Implement Best Practices

By the end of Year 1 all baseline data will have been collected and analyzed. The baseline information will not only serve as reference point for the project results but will likewise be used for fisheries and socio-economic interventions. The baseline collection activities will be designed in such a way that they will also serve as start up information for capacity building programs including the assessment of level of governance, training needs assessment and climate vulnerability assessment. The bio-physical, socio-economic and governance information will likewise serve as basis for determining and setting in place early fisheries management actions as well as inputs to inter-LGU fisheries management planning. The subsequent monitoring events in years 3 and 5 will provide the basis for measuring project results as well as evaluate the capacity of partners to implement EAFM.

Figure 2 summarizes the general calendar of ECOFISH activities and interventions for the life of project showing a higher time resolution during the first year of the project and adjusted to coincide with USAID's fiscal year cycle. These activities and interventions are planned to culminate during specific periods and their scheduled year of completion are described in the Life of Project Work Plan.

The activities in Year 1 are mostly preparatory work or initial steps to accomplish the deliverables. Most activities to achieve the various deliverables will run through Years 2 to 4. ECOFISH activities will peak during Years 3 and 4 but by the end of Years 2 and 3, a number of major activities will already have been accomplished and in particular, the inter-LGU integrated fisheries and coastal resources management planning, development of PPP portfolio, and early fisheries management actions. Capacity building programs and setting in place of GCM mechanisms, that form the core of ECOFISH activities at both the national and local levels, will likewise peak during Years 3 and 4 and will taper off towards year 5.

Descriptions of the key activities/interventions under each of the 13 deliverables during Year 1 of ECOFISH implementation are given below. To adjust to USAID's fiscal year cycle of reporting, Year 1 is adjusted to consist of five quarters from July 2012 to September 2013. Subsequent planning and reporting cycles will likewise be adjusted to become consistent with this adjustment.



Figure 2. General Calendar of ECOFISH Activities and Interventions Highlighting the Year 1 Activities.

Deliverable 1: Policy Studies on EAFM, MPA, and Climate Change

The policy studies must be aligned with the priorities of the key partners, especially BFAR, and at the same time translate the outputs of ECOFISH into implementable programs, laws or regulations. Therefore, in Year 1, the entry point of ECOFISH is to consult with BFAR, other key partner agencies and stakeholders to identify priorities for policy studies, and design a process for a consultative process of conducting the studies.

The policy agenda supported by ECOFISH commencing in Year 1 includes at least two (2) national policies that are structural - to create an enabling environment for EAFM, such as establishing a national database/information system (Deliverable 3) that is crucial for a science-based, informed decision-making process. In addition to structural policy priorities, ECOFISH will also commence support in Year 1 the conduct of one (1) policy study in support of a CTI theme, and one (1) that focuses on sustainable financing and PPPs. In conducting these policy studies, ECOFISH may draw on initial research frameworks and outputs from scientific studies and baseline assessments (Deliverables 6, 7, 8, 9, 12, and 13), as well as legislative and policy priorities identified under the CTI framework and the Philippine Development Plan.

In Year 1, ECOFISH will also commence support for two (2) policy forums, either national or regional, on priority issues that are already on-going. This may include, for example (subject to consultation), a forum to refine and finalize operational programming of the Comprehensive National Fisheries Industry Development Plan, or to assess progress and strategies for the mandatory review of the Fisheries Code, or to strengthen policy and regulatory mechanisms in mangrove reversion, and registration and licensing (related to Deliverable 11). The scope, design and conduct of the policy studies will be transparent, consultative and responsive to the needs and perspectives of the adopting/implementing agency as well as that of the stakeholders.

Deliverable 1: Policy Studies on EAFM, MPA, and Climate Change					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Conduct studies on EAFM policies and policy implementation in providing an enabling environment for EAFM					
Consultation meeting with BFAR Director and key BFAR units on priorities for policy studies					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, NFR and other key partners to validate priority policy studies and define their scope					
Conduct policy studies and draft relevant legal instrument to implement recommendations					
Conduct national/regional consultations to validate study results					
Submit policy studies to BFAR or other relevant implementing agency for consideration/adoption; monitor progress of agency consideration/adoption					
Conduct policy forums with relevant stakeholder groups					
Consultation meeting with BFAR Director and key BFAR units on priorities for policy forums (e.g. on-going policy initiatives)					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, NFR and other key					

partners to validate priority issues for discussion					
Conduct national/regional forums on 2 of the priority issues; document discussions and recommendations					
Share results of forums with key partners and general public					
Conduct policy studies to integrate CTI themes, (EAFM, MPAs, and CCA) into existing policy instruments					
Review CTI's common regional framework for legislation and policy that would support EAFM, relevant legislative and policy priorities under the PDP					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, NFR and other key partners to validate priority policy studies and define their scope					
Conduct policy studies and draft relevant legal instrument to implement recommendations					
Conduct national/regional consultations to validate study results					
Submit policy studies to relevant implementing agency for consideration/adoption; monitor progress of agency consideration/adoption					
Conduct policy studies on revenue generation, sustainable financing, and PPPs to support sustainable fisheries management					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, DTI, DOF, NFR and other key partners to validate priority policy studies and define their scope					
Conduct policy studies and draft relevant legal instrument to implement recommendations					
Conduct scoping study and initial meetings with selected representatives of DOJ, DOF, DA, DTI and DBM on potential national fiscal instruments that can contribute to sustainable fisheries management and on existing fiscal instruments that are hampering sustainable fisheries management					
Conduct national/regional consultations to validate study results					
Prepare initial meeting materials for presentation to national government representatives (DOJ, DOF, DA, DTI, DBM)					
Submit policy studies to relevant implementing agency for consideration/adoption; monitor progress of agency consideration/adoption					
Team Lead: Senior Governance and Institutional Development Specialist, Chief of Party Key Partners: BFAR, DA, DENR, DILG, NEDA, DTI, DOF, DOJ, DBM, LMP, NFR, NFARMC, commercial fishing sector					

Deliverable 2: Toolkits, Sourcebooks, and Case Studies on EAFM, MPA, and Climate Change

As a contribution to the inventory and review of existing toolkits to support capacity-building activities of the ECOFISH Project for Year 1, MERF will support technical assistance to target

local government units through orientation workshops and trainings on ecosystem-based coastal vulnerability assessment (VA) tools. This will be in collaboration with the ECOFISH capacity building specialist so that there will be seamless utility of the toolkits within the overall capacity building of targeted stakeholders and partners e.g. decision support for policy and linkage to the national database applications (Deliverables 1 and 3).

The VA tools are: the **I**ntegrated Coastal Sensitivity, **E**xposure, **A**daptive Capacity to Climate Change for Coastal Communities (or *IC-SEA CChange*), the **T**ool for **U**nderstanding **R**esilience of **F**isheries (or *TURF*) and **C**oastal **I**ntegrity **V**ulnerability **A**ssessment **T**ool (or *CIVAT*). These VA tools were designed to be applied at the “barangay” to municipal levels to assist local governments in mainstreaming climate change adaptation (CCA) actions in their fisheries and/or site management plans. Content for these tools were first developed and piloted in select coastal municipalities under the DOST-funded National Resilient Seas Program and through other projects funded by the World Bank, NEDA and Conservation International-Philippines (i.e. in the Verde Island Passage). To support the roll-out of these VA tools, a VA guidebook has been developed through a grant support to MERF from Conservation International-Philippines through the Coral Triangle Support Partnership (CTSP) funded by USAID. In addition, training modules have been developed to ease delivery and implementation of these VA tools in the six Coral Triangle countries. With grant support from the USCTI Program Integrator, MERF also initiated a regional network called the CTI-CLAN (i.e. Coral Triangle Initiative - Coastal Learning Adaptation Network). The vision was to form a cadre of CCA practitioners in the CT level - the core of which are the trainees from the six CT countries. For the ECOFISH Project, these VA tools can be used to help strengthen the capacity of LGUs in incorporating CCA in their disaster-risk and fisheries management plans and in the process form a learning network of CCA practitioners starting off from the focal areas in the eight MKBAs.

MERF will utilize the developers of these tools to engage with partners under the leadership of the DCOP and the Senior Governance and Institutional Development Specialist (Deliverable 5). The implications of enhancing resilience and adaptive capacity using a climate change lens will help improve EAFM effectiveness. Its implications to national and local policy imperatives (Deliverable 1) will require engagement and integration of reporting and feedback (Deliverable 4). Its objective to lay governance capacity foundations and good practices will be enabled through climate proofing/smarting of EAFM with marine spatial planning (e.g. MPA network design and integrated coastal management).

The Project will use these toolkits and other reference/information materials to promote EAFM in the national and local agendas as well as to expand the constituency for EAFM in the country. Where appropriate, the project will seek to popularize these toolkits and sourcebooks in easy to understand language to enhance stakeholder awareness, knowledge and engagement in EAFM initiatives. The Project will identify and engage national and local champions (individuals and organizations) in the promotion and adoption of these toolkits, sourcebooks and case studies and will use both mass and social media (including the maintenance of www.oneocean.org website) in the dissemination/delivery of these tools.

Deliverable 2: Toolkits, Sourcebooks, and Case Studies on EAFM, MPA, and Climate Change					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Review existing toolkits (Municipal Fisheries Management source book (Volume 1), and other guidance					
Assist BFAR in launching ECOFISH Project among partners and stakeholders					
Assist ECOFISH team in the conduct of “handshake activities” with partners and stakeholders to generate ownership of project objectives and initiatives					
Review, reproduce/reprint where appropriate, previous FISH Project IEC materials for use at new MKBA sites					
With partners, undertake scoping activities and formulate a strategic information, education, communication (IEC) plan at the national and site levels based on the Project's key result areas and capacity-building goals. IEC plan to identify and establish learning and behavioral outcomes of IEC program					
Develop and produce EAFM start-up guide for LGUs					
Develop and produce initial IEC materials to establish ECOFISH Project identity and messages					
Develop case studies on the integration of CTI themes (EAFM, MPAs, and CCA) at the site level					
Consultation among ECOFISH team members on the materials to be used for EAFM, MPA and CCA for the trainings in the MKBAs					
Consolidation of training materials to form the toolkit for the EAFM, MPA and CCA training for MKBAs					
Development of MPA training, fisheries toolkits, etc. for the MKBAs					
Development of Climate Change Adaptation training toolkits for the MKBAs					
Development of EAFM training toolkit for the MKBAs					
Produce popularized case studies/information materials at the site level integrating CTI themes on EAFM, MPAs, and climate change.					
Activate/update monthly www.oneocean.org website to serve as the official website of ECOFISH Project; use website and social media as information channels of the Project.					
Identify and initiate working relationships with "champions" and advocates of sustainable fisheries at the national and local levels					
Expand EAFM constituency, identify and initiate alliances and synergy/partnerships with strategic sectors, public-private partnerships and social organizations at national and project site levels.					
Develop of Municipal Fisheries Management Toolkit series (update Volume 1, develop additional volumes)					
Evaluate and prioritize the update and next volume to be developed					

Develop and produce Fishery Law Enforcement Procedural Handbook					
Review existing handbooks and manuals used directly or as reference by BFAR or LGUs in enforcing fishery laws					
Conduct an FGD with key personnel/agencies involved in the full range of enforcement continuum to identify printed materials needed for compliance promotion or enforcement					
Develop draft of identified printed materials needed for compliance promotion and enforcement					
Produce fishery law enforcement instructional video					
Review existing enforcement materials in video format					
Conduct an FGD with key personnel/agencies involved in the full range of enforcement continuum to identify video materials needed for compliance promotion or enforcement					
Develop concept/story line for video production					
Identify for showcasing, and as potential learning destinations, successful municipalities and communities implementing EAFM in MKBA sites to expand constituencies and promote strategic spread.					
Team Lead: IEC Specialist, Senior Fisheries and Coastal Resource Management Specialist, Regulation and Enforcement Specialist, and MERF Key Partners: BFAR, DILG, PNP, LMP, university network, NFR					

Deliverable 3: A National Database on EAFM Established Using the Annual Monitoring Data in the 8 MKBAs

During the first year of implementation, the most immediate step in establishing a national database on EAFM will be to review existing fisheries databases used by national and regional agencies. Foremost in the consideration, is the development of a system that will capture the EAFM related data and information that are going to be monitored by ECOFISH during the life of the project. This should include, among others, data on fish catch, fishing effort, socio-economics, registration, licensing, and enforcement. The review of existing databases will also serve as basis for developing a system for integration of information from various fisheries management initiatives in the country into one national data base. The objective is to enable agencies, institutions or LGUs to retrieve information helpful for the implementation of their mandate with regards to fisheries management. Consolidated information from the national EAFM database will likewise feed into the State of the Marine Resources Report.

Deliverable 3: A National Database on EAFM Established Using the Annual Monitoring Data in the 8 MKBAs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Review existing fisheries database and identify additional types and sources of data needed for EAFM					
Inventory and evaluation of existing databases that support fisheries resources management and other EAFM components like information on socio-economics, enforcement, registration and licensing					
Consultation with partners and agree on arrangements for the integration of information for the national database system					
Develop national database					
Review and further improve the fisheries database developed under FISH Project and make it available for the rest of the MKBAs					
Consult with BFAR and partners to integrate with database developed by BFAR (for the fishers registration system)					
Develop protocol for data collection & entry in the national database					
Consult with partners regarding data requirement, data forms, data collection and encoding system					
Develop system of incorporating various sources into one national database					
Test the database system in selected focal areas of MKBAs (until part of Year 2)					
Develop protocols for fish catch monitoring system to become part of the National Stock Assessment Program					
Initiate agreement with NSAP on a system for integration of fisheries information from the MKBAs in to the NSAP database					
Develop protocols for benchmarking local EAFM					
Review EAFM benchmarking developed under FISH as well as other fisheries management monitoring systems developed by other institutions					
Integrate socioeconomics and enforcement benchmarks into the EAFM benchmarking system					
Team Lead: Senior Fisheries and Coastal Resource Management Specialist, GIS-KIM Specialist					
Key Partners: BFAR, DILG, LMP, DENR					

Deliverable 4: State of the Marine Resources Report

The State of the Marine Resources Report will provide a comprehensive set of information on the status of fisheries, associated ecosystems and their management. It is intended to regularly inform LGUs and national government agencies about the conditions of the fisheries and marine resources with the objective of raising awareness and enhance capacity to manage these resources. The State of the Marine Resource Report will serve as the Philippine Government's input to the State of the Coral Triangle Report (SCTR) of the 6 CTI countries. ECOFISH will start with

reviewing the SCTR, determine the elements that the project can contribute, and start with them as the core of the proposed State of the Marine Resources Report. ECOFISH will then start conducting review sessions and workshops with partners to develop the framework and finalize assignments for the development and drafting of various sections of the report.

Deliverable 4: State of the Marine Resources Report					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Review protocols and status of CTI efforts in knowledge management and State of the Coral Triangle Report					
Review the State of the Coral Triangle Report					
Determine the elements ECOFISH can contribute and the potential collaborating agencies and institutions					
Develop a framework for the State of the Marine Resources Report with partners and informed by CTI efforts					
Present to partners the proposed elements of the State of Marine Resources Report					
Develop with partners the framework and agree on specific tasks in developing the report					
Conduct workshops and review sessions with partners to develop sections of the report					
Workshops with partners to finalize assignments for the development and drafting of various sections of the report					
Team Lead: Senior Fisheries and Coastal Resource Management Specialist, MERF, GIS-KIM Specialist					
Key Partners: BFAR, DENR, LMP, university network, WWF					

Deliverable 5: National, Regional and Municipal EAFM Trainings Conducted

ECOFISH is mandated to design, implement and help institutionalize a capacity-building program for EAFM (Result A) that has, at its core, a comprehensive and systematic training program (Task 1), and strategically complemented by IEC and scientific research (for both biophysical and socio-economic issues). The capacity-building program must be aligned with the priorities of the key partners, especially BFAR, and serve the needs of frontline resource managers – LGUs, and IP and local community partners. Therefore, in Year 1, ECOFISH will conduct a training needs assessment as the entry point for this component.

For Year 1, the focus of the training component of ECOFISH will be to design the overall capacity-building program, as well as details of the training curriculum and at least ten (10) courses. The courses draw from existing relevant training courses/modules prepared and conducted by the previous FISH project, BFAR and other key agencies and institutions, which can include themes in biophysical sciences (e.g. fisheries, ecology, climate change), general governance (e.g. EAFM, law enforcement, licensing and registration), and socio-economic issues (e.g. linking natural resource management and poverty, etc.). Also in Year 1, ECOFISH will

kick-start with at least two (2) national trainings on fisheries law enforcement for the National Quick Response Team that may involve training new participants or enhancing skills of previous participants. These national law enforcement trainings will also focus on enhancing the strategy for fisheries law enforcement, especially in the identified eight MKBAs, to prepare for the conduct of trainings in these areas in Years 2 and 3.

A crucial component of the capacity-building program is the design of a monitoring and evaluation system to assess progress and refine content to be responsive to the evolving needs of the key partners and stakeholders. In Year 1, ECOFISH will lay the foundation for this evaluation system, subject to developments as the training component progresses over the Project lifetime.

Deliverable 5: National, Regional and Municipal EAFM Trainings Conducted					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Conduct a training needs assessment					
Consultation meeting with BFAR Director and key BFAR units on priorities and scope of trainings needed					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, NFR and other key partners to validate priority training needs for national agencies and local governments					
Workshop with ECOFISH team to discuss results of needs assessment and response strategy					
Develop EAFM training curriculum					
Workshop with ECOFISH team to design curriculum					
FGD with BFAR, DA, DENR, DILG, LMP, NEDA, NFR and other key partners to validate scope and general content of training curriculum for national agencies and local governments					
Workshop with ECOFISH team and lecturers/trainers on scope and content of curriculum					
Conduct training needs assessment of partners in the MKBAs and develop a training program to enable them implement various elements of EAFM					
Consultation with LGUs, NGOs and POs on the current state of fisheries management initiatives in the MKBAs					
Develop an inventory and priority of training requirements of partners to implement EAFM and target audience for each EAFM course					
Develop a training program for various elements of EAFM including schedule of delivery through the life of project					
Develop or refine training courses					
Workshop with ECOFISH team and lecturers/trainers on scope and content of relevant training courses under the curriculum					
Workshop (together with selected key partners) to field test training courses					
Finalize and package training course materials (for trainers and trainees)					

Design course/curriculum evaluation system					
Provide complementary scientific and technical support in the training series for National Quick Response Team on fishery law enforcement					
Consultation meeting with BFAR Director and key BFAR units on priorities (sites, capacity level) on fishery law enforcement					
Conduct a capacity building need assessment for members of the National BFAR QRT					
Develop a menu of capacity building interventions for the QRT					
Develop a training module and execute the module on pilot basis					
Develop a trainers training program and execute on pilot basis in one MKBA					
Provide support to QRT or any member of QRT who has opportunity to be trained in a relevant specialized skill					
Conduct national training for NQRT (participants include those from priority sites)					
Design/enhance evaluation system and conduct evaluation of training					
Prepare schedule and tasking for training series for MKBA QRTs					
Team Lead: Senior Governance and Institutional Development Specialist, IEC Specialist, Senior Fisheries and Coastal Resource Management Specialist, Regulation and Enforcement Specialist Key Partners: BFAR, DENR, Philippine Coast Guard, PNP, NFARMC and LMP					

Deliverable 6: Public-Private Partnerships Supporting ECOFISH Objectives Established

To counter dwindling fish stocks caused by overfishing, poorly enforced regulations, and lack of controls, ECOFISH will engage the participation of national agencies, local governments, and the private sector to apply Ecosystem Approach to Fisheries Management (EAFM) principles at the local and national levels. To contribute to this goal, SSG Advisors will provide tailored guidance and technical assistance for the development of innovative partnerships with the private sector for the project. The private sector has a critical role to play in ECOFISH biodiversity and livelihood efforts, as it is this sector that creates demand for many types of seafood, which contributes significantly to the depletion of fisheries stocks. Thus, engaging the private sector as a partner in managing a sustainable resource base is essential to the success of ECOFISH broader efforts to strengthen biodiversity.

Aside from PPPs, other alternative livelihood schemes within the MKBAs will be explored. Results from the socio-economic baseline assessments will be utilized to identify target communities. Scoping activities will be conducted in Year 1 to seek existing livelihood interventions which the project may add value to, as well as identify potential areas and SMEs that may be tapped for fishing households who may be displaced from fisheries management interventions. The Project will work with BFAR where possible, particularly to coordinate with the Bureau’s current livelihood schemes for fishing communities.

Deliverable 6: Public-Private Partnerships Supporting ECOFISH Objectives Established					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Develop portfolio of PPPs					
PPP mobilization, staff recruitment and training					
Identify strategic partnership opportunities using STEP Rapid Partnership Appraisal and Partnership Scorecard. Tourism assessment					
Develop strategic partnership. Conduct partner negotiations, prepare MOUs, and conduct partnership forums					
Develop community partnership. Analysis of community partnership. Adapt STEP Community Partnership Module					
Capacity building. Staff, site coordinators and stakeholders training and mentoring					
Conduct training in establishing PPP					
Establish private sector partnerships					
Conduct scoping activities on which communities can be tapped for potential PPPs					
Conduct scoping activities on potential private sector partners for PPPs in ECOFISH MKBAs					
Conduct scoping activities to identify alternative livelihood schemes aside from PPPs for fishing communities					
Team Lead: : SSG Advisors Partnership Specialist, Senior Resource Economics Specialist, REECS, SSG Key Partners: BFAR, private sector, LGUs					

Deliverable 7: Bio-physical, Social and Economic Baseline Assessments of the 8 MKBAs

MERF will conduct the baseline assessment and monitoring activities of MKBAs. The following indicators and parameters for baseline assessment of fisheries ecosystem include stock abundance and distribution of various fisheries resources, gear-fisher history, and key parameters of habitat quality and characteristics. Primary fishery data such as catch rate, fishing effort, catch composition, extent of fishing areas of the MKBA sites will be determined. Key parameters of habitat quality include measures of species composition, richness, diversity and abundances. From the perspective of fisheries ecosystem management, inclusion of key ecosystem indicators is important to baseline assessment studies. For establishment of MPAs key indicators consist of measures of species richness, species composition, diversity and abundance of each ecosystem type. This aspect utilizes underwater visual census (UVC) methods.

Catch rates and biomass of selected fisheries resources in the focal areas of MKBAs will be measured using fisheries-dependent assessment methods. ECOFISH will use “fisheries dependent surveys” as a primary assessment method that can be carried out by the local governments as well as academic institutions that will support them (or serve as service provider beyond life of the project and in the future). The other part of the strategy is to focus on the transfer of habitat and fisheries monitoring technology to LGUs and service provider universities

in the FISH Project focal areas. The project team will also institute a system for baseline and monitoring of enforcement initiatives including impacts of enforcement. This will provide a baseline and monitoring of information on number of enforcement teams, number of enforcers, budget allocation for enforcement, incidence of illegal fishing activities, cases filed, indictments, and fines collected. Key information will be included in the national EAFM database.

The human dimension is also vital in the process wherein fishing mortality of fish stocks largely depend on fishing pressure and gear dynamics primarily attributed to the magnitude of fishing communities. The nature of fishing pressure and gear dynamics also changes with the socio-economic and institutional-political conditions. This aspect although not comprehensive includes some aspects of socio-economic variables such as population density, fisher density, fishing income, ecosystem dependence, other sources of income, and education.

For socio-economic assessments in particular, the project will build on existing initiatives such as Conservation International's socio-economic monitoring for MPA management being institutionalized in the Verde Island Passage, and USAID's natural resource assessment project in Siargao. For MKBAs with no existing socio-economic assessments and monitoring systems, the results of the Community-Based Monitoring Survey (CBMS) of the Department of Interior and Local Government (DILG) and the National Economic and Development Authority (NEDA) will serve as basis in designing assessments and monitoring systems. In cases where primary surveys will have to be conducted, the project will use existing survey instruments and methods to fill in the data gaps.

The assessments will target the measurement of socio-economic variables that indicate economic wealth both at the household and community levels. Economic rent estimates will likewise be measured to serve as inputs to policies concerning sustainable fisheries at the MKBA level. These surveys will be synchronized with the survey needs of other economics-related activities of the project such as development of market-based instruments and setting up of PES schemes for sustainable financing. Results will likewise feed into other project deliverables such as the State of Marine Resources Reports, the national database on EAFM, studies relating to economic valuation and CBA, and the establishment and implementation of Public-Private Partnerships. ECOFISH will help sustain these databases so they can continue after project life.

The data that will be derived from the baseline and monitoring of the fisheries, bio-physical features and some aspects of socio-economic conditions of the fisheries will serve as crucial information in the other deliverables (Deliverables 1-6, 8-9) and ultimately for the management strategies which include not only fishery measures but also MPA establishment (Deliverable 9) and governance aspects (Deliverable 1), among others. These management options will be ultimately incorporated in the local and national policy-making efforts (Deliverable 1).

The EAFM benchmarking developed by the FISH Project and toolkit development under CTI will be reviewed, reformatted for ECOFISH and used to establish a governance baseline. The purpose of setting the benchmarks is to provide a framework to guide site implementers in effectively implementing EAFM programs primarily by providing guideposts for the various stages of their implementation.

Deliverable 7: Bio-physical, Social and Economic Baseline Assessments of the 8 MKBAs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Conduct fisheries baseline assessment and monitoring					
Identify and finalize focal areas in the MKBAs					
Coordination with LGUs covering the selected focal areas					
Hiring and training of personnel					
Selection and finalization of sampling sites					
Data collection and analysis					
Conduct MPA baseline assessment and monitoring (as part of MPA establishment)					
Identify and finalize focal areas in the MKBAs					
Coordination with LGUs covering the selected focal areas					
Hiring and training of personnel					
Selection and finalization of MPA sites					
Data collection and analysis					
Conduct socioeconomic baseline assessment and monitoring					
Conduct scoping activities in 8 MKBAs, to determine where assessments are already available and where to conduct primary surveys, gather locally available data					
Conduct FGDs, KIIs and household surveys in MKBAs					
Conduct enforcement baseline assessment and monitoring					
Develop instrument for conducting baseline for enforcement					
Conduct workshop/FGD to establish baseline and benchmarks					
Conduct governance baseline assessment and monitoring using benchmarking system in MKBA focal area LGUs					
Review LGU benchmarking developed under FISH and EAFM benchmarking developed under CTI					
Agree and develop with team partners the standard benchmarking to use					
Field testing of benchmarking process in selected MKBAs					
Team Lead: Senior Fisheries and Coastal Resource Management Specialist, MERF, Senior Resource Economics Specialist, GIS KIM Specialist Key Partners: BFAR, NSAP, University network					

Deliverable 8: Scientific Studies on Select MKBA-Specific Fish Species

Project partners and resource users in the MKBAs will be consulted to come up with a list of key species that would require fisheries management interventions during the life of the project. The objective is to establish model species-specific management intervention in each area by going through the entire process of information gathering (from existing literature, primary data collection if necessary), stakeholder consultations, drafting of policy instruments like ordinances, and setting up strategies for their effective implementation. The entire exercise likewise allows the partners to learn the rudiments of the management planning cycle and can make them

confident to replicate the process on their own (for other species or fisheries). Offhand, candidate fisheries are species of remarkable abundance, dominance, or high economic importance such as blue crab in Danajon Reef, rabbit fishes in Danajon Reef, Lingayen Gulf and Surigao, “ludong” in Verde Island Passage, sergestids in Surigao, small pelagics in South Negros and Sulu Archipelago, and various invertebrates in almost all MKBAs. The Special Activities Fund (SAF) may be used to support gathering and analysis of needed information to support specific species or fisheries management.

One study that will be undertaken is a detailed ecological study on the effect of perturbation (e.g. fishing pressure, habitat degradation) on the status of populations and stocks of important target species in a site. The baseline assessment can initially provide the target species, the type of gears and fishing effort that affect the dynamics of the target resource of a site. This also includes the quality of habitat that greatly influences the demographic distribution and hence the population dynamics of the target species. The scope and the design of the study can be broad (encompasses within and among MKBA sites) that will allow the participation of local stakeholders of an MKBA site thus enhancing the capacity building initiatives especially on the research aspect of fisheries. Results that will be engendered from this study should provide crucial insights for local and national imperatives (Deliverables 9 and 10) for stock enhancement initiatives.

The EAFM planning process requires best available information on the various ecosystem components and the fishing effort harvesting the resources. Information from fisheries baseline data collection and from rapid appraisal techniques will be used to establish the trophic system and interaction, and to initiate an ecosystem modeling exercise to determine and establish the appropriate fishing gear effort configuration. The team will utilize an ECOPATH model for viable ecosystem scale in each MKBA to simulate various scenarios for stakeholders’ consideration to agree on the appropriate scenario (including the fishing allocation and reflecting the agreed-upon effort allocation in the management plan).

The cost-benefit analysis and economic value study will commence in year 2. However, the design for data requirement and input will already be conducted in year 1 so that their collection can already coincide with baseline assessment.

Deliverable 8: Scientific Studies on Select MKBA-Specific Fish Species					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Determine and establish trophic interactions and appropriate fishing effort configuration using Ecopath model (Year 1 for former FISH Project focal areas)					
Develop trophic models for MKBAs covering former FISH project areas					
Develop various choice scenarios on effort configuration in former FISH project sites					
Consultation with stakeholders on establishing appropriate fishing effort in former FISH project sites					
Identify species-specific or fishing gear studies based on results of baseline assessment (in new MKBA focal areas)					
Study on the effect of perturbation (e.g. fishing pressure, habitat degradation) on the status of the population and stocks of important target species					
Determine economic values and perform cost-benefit analysis in MKBA focal area LGUs					
Set up database and gather locally available secondary data for CBA, establish baselines (can be combined with the baseline assessments)					
Team Lead: Senior Fisheries and Coastal Resource Management Specialist, MERF, Senior Resource Economics Specialist Key Partners: BFAR, SEAFDEC, University network (SAF may be used to support these institutions)					

Deliverable 9: MPA Network Analyses in the Eight MKBAs

MPA network analyses in 4 of the eight MKBAs will involve using results from hydrodynamic models to drive particle based Lagrangian dispersal models. Particles will be released all along the coast of the MKBA and tracked until the end of the model run. Information of tracks of individual particles will form the basis for the construction of a connectivity matrix. This approach can be used to identify potential sources and sinks of larvae. Additional information will be added to refine the connectivity matrix. In this study, we will derive and overlay spatial information on larval output based on data on fish biomass, habitat condition, and governance level of existing MPAs and extent of available habitat area (linked to deliverable 7). Data for this will be derived from the habitat and fisheries baseline and monitoring component.

Connectivity patterns will be validated with fish plankton survey data. Transport patterns from relative distributions of the different stages of larvae and eggs will be used to infer transport patterns. The LoE for this deliverable will be allocated for year 2, but some engagement of the oceanographers are allocated in the toolkits work especially in relation to vulnerability assessment tools (Deliverable 2) and baseline assessment (Deliverable 7).

Deliverable 9: MPA Network Analyses in the Eight MKBAs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Conduct hydrodynamic study and dispersal modeling					
Develop hydrodynamic models for selected network of MPA sites					
Conduct site activities to perform water current studies					
Develop particle tracking models					
Develop MPA network design (includes climate change adaptation strategies)					
Draft MPA network design					
Consult with partners until finalization of the MPA network desing					
Establish MPA network in new MKBAs					
Conduct partner consultations and meetings to set up component MPAs as part of the network					
Develop plan to implement component MPAs including tasking, and financing					
Strengthen MPA networks in existing MKBA focal areas					
Evaluate existing MPA networks established during FISH Project and determine activities to restore or strengthen the networks					
Develop customized capacity building program for MPA networks to promote compliance and enforce regulations					
Team Lead: Senior Fisheries and Coastal Resource Management Specialist, MERF					
Key Partners: BFAR, University network (SAF may be used to support local colleges)					

Deliverable 10: Fisheries Management Plans of Select Inter-LGU Alliances in the Eight MKBAs

The basic spatial scale of ECOFISH activities is the municipal waters and the basic governance unit is the municipality or LGU. However, what constitutes an ecosystem is often a body of water that is shared by several neighboring LGUs. For EAFM to work it is therefore necessary to develop integrated management plans for a cluster of LGUs and, as much as possible, scale up the effort to the MKBA level. The approach is to consciously link the management planning process to other LGU collaborative initiatives, such as the creation and operation of inter-LGU enforcement units, comprehensive bay-wide (or any broader bodies of water) fisheries and water use zoning, and institution of appropriate levels of fishing effort for specific fishing grounds. It is also in this inter-LGU comprehensive management plan that the registration and licensing information to limit and control fishing effort will be spelled out. ECOFISH will start by revisiting the integrated management plans of former FISH Project sites and conduct activities required to revive or strengthen them. Whenever feasible, the inter-LGU fisheries management process can also start in the new project sites or MKBAs.

Deliverable 10: Fisheries Management Plans of Select Inter-LGU Alliances in the Eight MKBAs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Conduct integrated coastal and fisheries management planning for cluster of municipalities or LGU alliances					
Revisit and review existing integrated coastal and fisheries management plans of sites under FISH and assess with partners and stakeholders the aspects that need to be revived, improved or strengthened					
Develop a set of next steps activities to respond to the findings of the review and assessment in former FISH project sites					
Conduct activities to revive or strengthen inter-LGU CFRM initiatives in former FISH project sites					
Initiate the introduction of schemes for right sizing of fishing effort in former FISH project sites					
Initiate inter-LGU planning process in new MKBAs					
Provide scientific and technical support in the establishment of coastal and fisheries law enforcement teams (new sites)					
Conduct an inventory of enforcement capacities and response capabilities of select LGUs					
Conduct refresher courses on fishery law enforcement as intermediate step in establishing enforcement teams through a combination of peer learning and conventional methods					
Conduct trainers training in former FISH sites and identify potential trainers					
Strengthen coastal and fisheries law enforcement teams (former FISH sites)					
Seek all means possible to acquire materials and other kinds of cash and non-cash support to established local enforcement teams					
Promote peer-to-peer learning through cross visits to MKBAs of similar issues					
Provide support to any member or team who has opportunity to be capacitated by other agencies/projects					
Establish a reward and sanction system to increase transparency and accountability					
Build/strengthen inter-LGU regulatory compliance and enforcement capabilities					
Conduct joint operations planning for cluster or alliance of LGUs					
Seek all means possible to acquire materials and other kinds of cash and non-cash support to established inter-LGU enforcement teams					
Promote peer-to-peer learning through cross visits to MKBAs with similar issues					
Provide support in documenting best practices					
Leverage with other projects or private/public programs that will ensure sustainability of inter-LGU alliance					

Assist in developing compliance promotions and enforcement strategies					
Team Lead: DCOP, Senior Fisheries and Coastal Resource Specialist, Regulation and Enforcement Specialist					
Key Partners: BFAR regional and provincial offices, provincial governments and PNP					

Deliverable 11: Registry of Users of Municipal Fishing Waters Established in Select Municipal LGUs in the 8 MKBAs

Fishery registration is an important control mechanism of the Growth, Control and Maintenance (GCM) package of interventions. The purpose of the registry of users of municipal waters is to maintain an inventory of fishers, fishing boats, and gears used for the ultimate purpose of using the information for managing the fisheries.

Deliverable 11: Registry of Users of Municipal Fishing Waters Established in Select Municipal LGUs in the 8 MKBAs					
Project Intervention/Activity	2012		2012		
	Q4	Q1	Q2	Q3	Q4
Registration and licensing training and drafting of ordinance					
Revisit and review existing registration and licensing system of sites under FISH and assess with partners and stakeholders the aspects that need to be revived, improved or strengthened					
Develop a set of next step activities to respond to the findings of the review and assessment in former FISH project sites					
Conduct activities to revive or strengthen registration and licensing system in former FISH project sites					
Draft an assessment tool/instrument to gauge registration and licensing success/failure at the LGU level					
Pilot test the assessment tool in select LGUs					
Develop strategy to enhance registration system either through amendment to ordinance or manner of enforcing registration ordinance					
Develop proto-types of model registration and licensing ordinance to cater to different scenarios/conditions					
Registration systems component of national database developed and deployed to LGUs					
Review effectiveness of current system and recommend improvements					
Develop field for a national data base on registration out of FGD or key informants					
Provide support for training of personnel to undertake registration and/or input to national data base.					
Training on use of registration system in each MKBA for management					
Develop training module on registration and licensing					
Develop criteria in prioritizing LGUs requiring training					
Team Lead: Regulatory and Enforcement Specialist, Senior Fisheries and Coastal Resource Management Specialist.					
Key Partners: BFAR, LMP, MKBA LGUs					

Deliverable 12: Revenue Generation System for Fisheries Management Established and Effectively Implemented in Select LGUs

Revenue generation is an important mechanism of the Growth, Control and Maintenance (GCM) framework to support sustainable fisheries management. There is a need for LGUs that are embarking on fisheries management activities to increase their revenues that will directly be plowed back into the management of fisheries in the MKBAs. ECOFISH will conduct studies on the viability of economic instruments as well as implement already proven effective instruments in the various MKBAs. The Project will directly go into establishing and implementing these economic instruments in the VIP in Year 1, which in turn will be subjected to proper public consultations to ensure their acceptance among the target users. For the other MKBAs, potential economic instruments will be identified and established once the scoping and assessment activities are completed in Year 1.

Deliverable 12: Revenue Generation System for Fisheries Management Established and Effectively Implemented in Select LGUs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Cost-benefit analysis of LGU operations involved in fisheries management					
Set up baselines and monitoring of costs of LGU operations in fisheries management					
Conduct scoping of potential instruments					
Design and establish instruments for select VIP LGUs					
Team Lead: Senior Resource Economist, REECS, and SSG					
Key Partners: BFAR, LMP, LPP, LGUs					

Deliverable 13: Sustainable Financing Programs for EAFM Implemented in Select LGUs in the 8 MKBAs

The Resource Economics Specialist will take the lead in developing alternative LGU or, as much as possible, inter-LGU trust funds and coastal adaptation funds to provide for long-term sustainability. ECOFISH will help capitalize these funds by increasing LGU contribution to the funds, leveraging other donor and private sector funds, and seeking increased revenues from resource permits and licenses. One potential concrete scheme that will be explored is the setting up of Payments for Ecosystem Services (PES) in viable MKBAs. This will necessitate the establishment of some form of property or use rights over the area to be subjected to a PES scheme. The Resource Economics Specialist will work closely with the Governance and Institutional Development Specialist in determining the viability of establishing use or property rights in the MKBAs. The economic valuation studies will likewise feed into the process of estimating the appropriate amounts of payment to be made by the identified buyer/s of the ecosystem service.

Deliverable 13: Sustainable Financing Programs for EAFM Implemented in Select LGUs in the 8 MKBAs					
Project Intervention/Activity	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Translate IFRM Plan into business plans					
Review existing management plans for developing business plans					
Draft business plans for selected LGUs with existing management plans					
Development of Inter-LGU Trust Funds					
Initiate the process of establishing inter-LGU trust funds					
Value chain analysis for local fisheries					
Conduct scoping on target fisheries for value chain analysis (can come out of the assessments and FGDs)					
Establish PES Schemes					
Initiate studies for establishment of PES schemes in select LGUs					
Team Lead: Senior Resource Economics Specialist, REECS, SSG Key Partners: BFAR, LGUs, Private sector					

5. Site-Level Year 1 Annual Work Plan

The activities in the MKBAs will primarily mirror many of the interventions and activities for the various deliverables described in the previous section. Start up activities may differ from site to site and their completion will depend upon the actual hiring of site managers, coordination with BFAR Regional Office, and coordination with local government executives and other partners.

Activities required to start up the project differ from site to site. The implementation of project activities in the Calamianes Island Group and Tawi-Tawi will require the approval of the Palawan Council for Sustainable Development Staff (PCSDS) and the Autonomous Region for Muslim Mindanao, respectively. PCSDS requires a Strategic Environmental Plan (SEP) clearance for all projects implemented in the province of Palawan. The rest of the other project sites will just require coordination with their respective BFAR Regional and Provincial Offices.

The following are the generic site-level start-up activities that are more or less common to all MKBAs. After final verification with BFAR National Director, BFAR Regional Directors, and key bureau heads, the site managers will commence with consultation and orientation activities with partners, particularly with the local government executives and their key staff performing coastal and fisheries resource management functions. This include, in most cases, a formal launching of ECOFISH in the MKBAs, project orientation, as well as benchmarking of training and capacity building needs of local partners.

Start-up Activities	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Hiring of staff					
Hiring of Site Managers					
Hiring of community organizers					
Coordination with BFAR Regional and Provincial Offices					
Courtesy call with BFAR Regional Director and key staff					
ECOFISH Project launching including presentation of project					
Coordination with LGUs and local partners					
Consultation and orientation meetings with LGU executives and fisheries staff					
Endorsement or approval of project by special bodies (e.g. PCSDS)					
Drafting and signing of MOAs or MOUs					
Consultation meetings with other local partners (NGOs, universities)					
Administrative and Operations					
Establishment of field offices					

During the first year of implementation, site-level activities will also mostly focus on preparatory work for planned interventions that will lead to achieving various deliverables of the project. Site activities will be very minimal for interventions to achieve project deliverables of national scope. The team at the sites will just assist or facilitate the gathering of information in their respective MKBAs or municipalities that may serve as input to policy studies, materials for the development of toolkits and case studies, information pertinent to national database on EAFM, and information that will ultimately form part of the State of the Marine Resources Report.

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Deliverable 1: Policy Studies on EAFM, MPA, and Climate Change					
Facilitate gathering of existing information at the MKBA and municipal levels for the policy studies on EAFM, MPA and CCA					
Deliverable 2: Toolkits, Sourcebooks, and Case Studies on EAFM, MPA, and Climate Change					
Assist in the collection and consolidation of toolkits, IEC materials, workshop/training reports in the area related to EAFM, MPA and CCA					
Deliverable 3: A National Database on EAFM Established Using the Annual Monitoring Data in the 8 MKBAs					
Coordinate and assist in the collection of existing data in the area on fisheries resources management for the national data base on EAFM.					
Deliverable 4: State of the Marine Resources Report					
Coordinate and assist in the collection of existing data in the area that are relevant to the State of the Marine Resources Report.					

Attend workshops or review sessions with ECOFISH team and partners to develop sections of the State of the Marine Resources Report					
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A number of project interventions will be designed at the national level but are going to be implemented in both the national and site levels. This include the trainings and capacity building activities as well as the establishment of public-private partnerships. The site staff will conduct preparatory activities such as consultation with local partners to assess the current state of fisheries and coastal resources management in their respective areas. They will likewise coordinate the training needs assessment, capacity building needs assessment, and benchmarking of capacity to implement EAFM, the series of activities that are going to be conducted together with the various thematic leads of the project. Because of the necessity for a Leahy vetting process in enforcement trainings, the site staff will commence with the preparations early on to see to it that key partners required to be vetted either as trainee or trainor will already have been identified and their documentation process being initiated. Some specific training or capacity building activities can already commence during the first year of the project particularly in MKBAs of former FISH Project site as well as in the Verde Island Passage MKBA where marine resource conservation initiatives have already some degree of progress. The site staff will likewise assist site-level public-private partnerships (PPP) activities particularly in the identification of potential PPP opportunities in their respective MKBAs, mapping of stakeholders for partnerships across and outside priority areas, and in the preparation and conduct of business planning and partnership trainings.

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q2	Q3	Q4
Deliverable 5: National, Regional and Municipal EAFM Trainings Conducted					
Conduct consultation with local partners and assessment on the current state of fisheries and coastal resources management in the area.					
Field coordination of training needs assessment, capacity building needs assessment, and benchmarking of capacity to implement EAFM					
Coordinate preparations for enforcement trainings, particularly the documentation processes for Leahy vetting.					
Coordinate preparations and conduct of trainings that may already be done in selected MKBAs					
Deliverable 6: Public-Private Partnerships Supporting ECOFISH Objectives Established					
Assist in the conduct of site inspection and identification of potential PPP partnership opportunities					
Assist in the identification and mapping of stakeholders for PPP across and outside priority areas					
Provide technical and administrative assistance during the Business Planning and Partnership Training Workshops preparations					

The site staff will coordinate and supervise the bio-physical and socio-economic baseline assessments, the species-specific and gear-specific scientific studies, and the

establishment of MPAs and network of MPAs. The site preparation work will include briefing of local officials, POs and NGOs regarding the nature and scope of the baseline assessment, scientific studies, and MPA establishment activities as well as identification, selection and hiring of enumerators to conduct the actual data collection. The site personnel will coordinate with LGUs all survey and data collection activities, stakeholder consultation prior to scientific studies, and community consultations on the establishment of MPAs. For areas with already established MPAs, the site team will facilitate the review of MPA management plans, assist in the strengthening of MPA management committees, and provide technical assistance for the administration of the MPA management effectiveness assessment tools.

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q4	Q1	Q4
Deliverable 7: Bio-physical, Social and Economic Baseline Assessments					
Brief local executives and coordinate with LGU fisheries staff arrangements for the bio-physical and socio-economic baseline assessments					
Assist in the identification and hiring of enumerators for the bio-physical and socio-economic baseline assessments					
Coordinate meetings with local officials, POs, local NGOs, and other knowledgeable leaders preparations for the bio-physical and socio-economic baseline assessments					
Provide administrative and technical assistance to the team in the conduct of bio-physical and socio-economic baseline assessments					
Deliverable 8: Scientific Studies on Select MKBA-Specific Fish Species					
Coordinate consultation with stakeholders on species-specific or gear-specific scientific studies					
Coordinate collection of primary data and secondary information for the species-specific or gear-specific scientific studies					
Deliverable 9: MPA Network Analyses					
Conduct orientation and consultation on the establishment of MPAs - for areas without MPAs or need strengthening of existing MPAs					
Facilitate identification of potential sites for the establishment MPAs					
Coordinate consultation with stakeholders on the selection of MPA sites					
Facilitate the review MPA management plans - for areas with existing MPAs or network of MPAs					
Facilitate strengthening of MPA management committee					
Facilitate conduct orientation on Management Effectiveness Assessment Tool (MEAT) – for areas with existing MPAs or network of MPAs					
Assist in providing technical assistance, coaching and mentoring for the administration of MEAT					

As preparatory activity for the development of inter-LGU fisheries management plan, the site team will coordinate the collection of existing municipal fisheries

management plans, CRM plans and fisheries ordinances. This will be followed by orientation session on fisheries management, EAFM benchmarking process, and consultation to identify and prioritize fisheries management interventions that need to be initiated. For areas with existing inter-LGU fisheries management plans, the site team will facilitate their review and the identification of activities to strengthen or, in extreme case, reinvigorate the plans.

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q4	Q1	Q4
Deliverable 10: Fisheries Management Plans of Select Inter-LGU Alliances					
Collect and consolidate existing municipal fisheries management plans, CRM plans, fisheries ordinances and other related materials					
Conduct orientation sessions on fisheries management and facilitate the conduct of the EAFM benchmarking process					
Conduct consultation to identify and prioritize fisheries management interventions that need to be initiated					
Facilitate the review of inter-LGU fisheries management plan (for those MKBAs with existing inter-LGU fisheries management plan)					

To initiate the registry of users of municipal waters, the site team will coordinate the collection of existing municipal fisheries registration and licensing systems. This will be followed by orientation session on registration of fisherfolks and fishing boats and licensing of fishing gears or fishing operations. Towards the end of year 1, registration and licensing trainings can already commence. For areas with existing registration and licensing system, the site team will facilitate their review and the identification activities to strengthen or, in extreme case, reinvigorate the system.

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q4	Q1	Q4
Deliverable 11: Registry of Users of Municipal Waters Established in Select Municipal LGUs in the MKBA					
Collect, consolidate and review of existing registration and licensing systems					
Conduct orientation on the registration of fisherfolk and fishing boats and licensing of fishing gears or fishing operation					
Initiate registration and licensing trainings of LGU partners					
Facilitate the review of registration and licensing system (for those LGUs with existing registration and licensing system)					

The site staff will coordinate preparatory activities for the establishment of revenue generation systems and implementation of sustainable financing programs for fisheries management in selected LGUs in the MKBAs. This will include coordination of consultation with local officials, POs and NGOs on revenue generation systems and sustainable financing programs. The site team will likewise

facilitate the gathering of secondary information related to revenue generation and sustainable financing. The primary data collection for these activities are covered under the biophysical and socio-economic baseline assessment (Deliverable 7).

Site Activities for Specific Deliverables	2012		2013		
	Q4	Q1	Q4	Q1	Q4
Delivery 12: Revenue Generation System for Fisheries Management Established and Effectively Implemented in Select LGUs in the MKBA					
Coordinate meetings with local officials, POs, local NGOs, and other stakeholders in preparation for the workshop and consultation on revenue generation system					
Facilitate the gathering of secondary data related to revenue generation system					
Coordinate and provide technical support for the valuation studies of the project.					
Deliverable 13: Sustainable Financing Programs for EAFM Implemented in Select LGUs in the MKBA					
Coordinate meetings with local officials, POs, local NGOs, and other stakeholders in preparation for the workshop and consultation on sustainable financing programs					
Facilitate the gathering of secondary data related to sustainable financing programs					