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PERFORMANCE MONITORING PLAN

JUNE 2006

FISH DOCUMENT NO. 25-FISH/2006

VERSION: FINAL



The **FISHERIES IMPROVED FOR SUSTAINABLE HARVEST** Project

June 23, 2006

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DISCLAIMER

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



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LIST OF ABBREVIATIONS AND ACRONYMS

BFAR	Bureau of Fisheries and Aquatic Resources
CRM	Coastal Resource Management
CY	Calendar Year
DENR	Department of Environment and Natural Resources
FISH	Fisheries Improved for Sustainable Harvest Project
FPR	FISH Project Result
GOP	Government of the Philippines
IR	Intermediate Result
LGU	Local Government Unit
M & E	Monitoring and Evaluation
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NGO	Non-Government Organization
PAMB	Protected Area Management Board
PAWB	Protected Areas and Wildlife Bureau
USAID	United States Agency for International Development



I.0 INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech) received United States Agency for International Development (USAID) Contract No. 492-C-00-03-00022-00, the Fisheries Improved for Sustainable Harvest (FISH) Project on September 19, 2003, to provide technical assistance to the Government of the Philippines (GOP), Department of Agriculture – Bureau of Fisheries and Aquatic Resources (BFAR), and selected local government units in fisheries management. The FISH Project is a 7-year (2003 to 2010) technical assistance project consisting of a 5-year base period extending from September 22, 2003 through September 21, 2008, and a 2-year option period extending from September 22, 2008 through September 21, 2010.

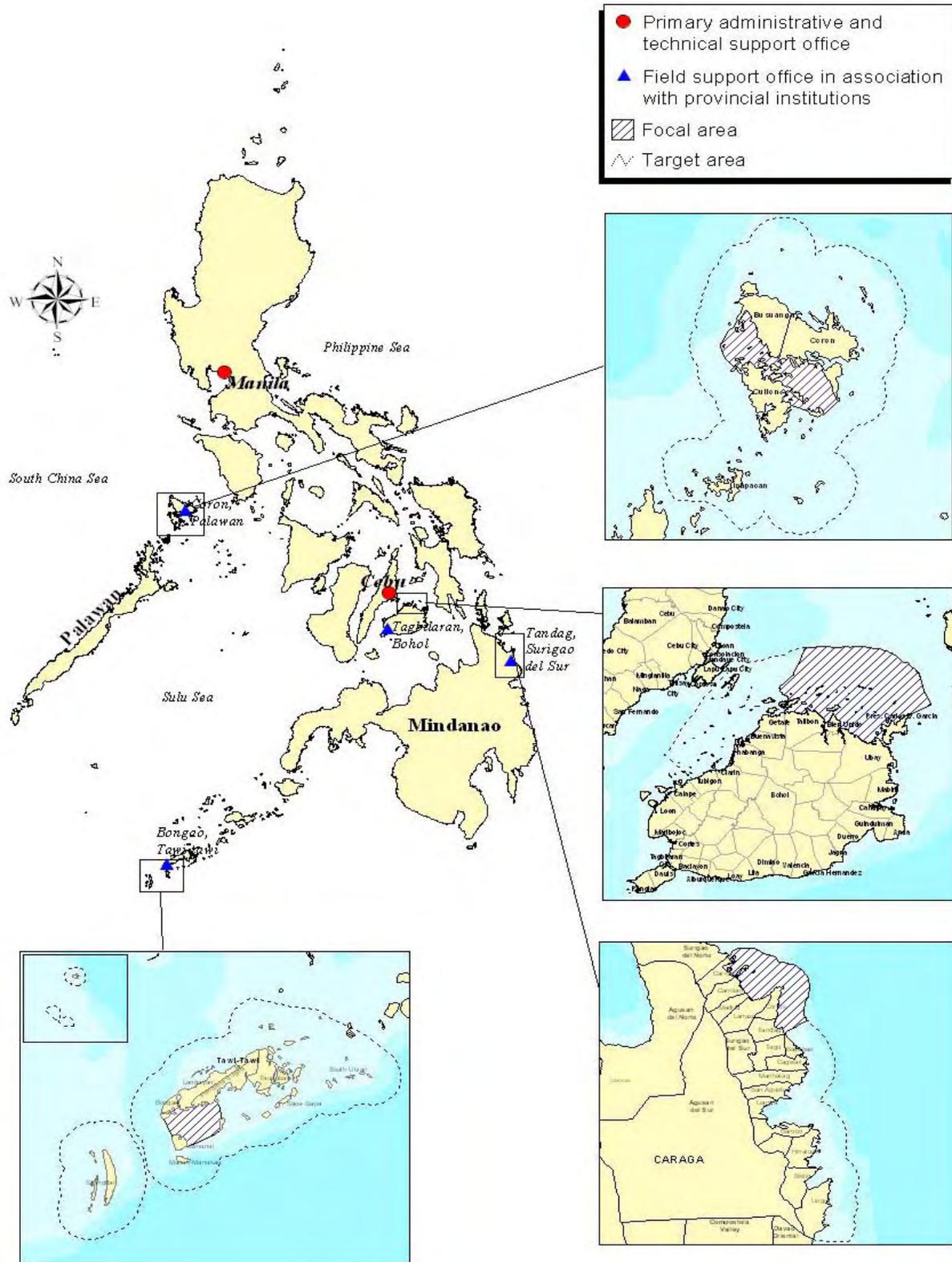
The FISH Project was designed to address a variety of fisheries management issues (Table I) in four ecologically and economically significant marine ecosystems in the Philippines (Figure I).

**TABLE I
FISHERIES MANAGEMENT PROBLEMS IN THE PHILIPPINES**

Core Problems	Contributing Factors
<ul style="list-style-type: none"> • Loss of marine biodiversity • Declining fish stocks • Loss of revenues and benefits from fisheries and coastal resources 	<ul style="list-style-type: none"> • Overfishing • Illegal and destructive fishing • Coastal habitat degradation • Siltation and pollution • Post-harvest losses • Inefficient marketing
<ul style="list-style-type: none"> • Inequitable distribution of benefits from fisheries and coastal resource uses 	<ul style="list-style-type: none"> • Open access • Inter- and intra-sectoral conflicts • Low awareness and participation in management • Lack of employment/poverty among artisanal fishers
<ul style="list-style-type: none"> • Population growth 	<ul style="list-style-type: none"> • Low awareness of the implications of overpopulation and food security • Lack of delivery mechanisms for reproductive health programs in rural coastal communities
<ul style="list-style-type: none"> • Inconsistent policies and programs for sustainable fisheries 	<ul style="list-style-type: none"> • Continued investments in production-oriented programs • Conflicting and fragmented national policies
<ul style="list-style-type: none"> • Weak institutional and stakeholder capacity to plan and implement fisheries management 	<ul style="list-style-type: none"> • Absence of the need and vision for institutional change to support sustainable fisheries • Inadequate technical and financial support to LGU fisheries management initiatives • Weak and inadequate law enforcement • Inadequate interagency coordination mechanisms for fisheries and coastal resource management
<ul style="list-style-type: none"> • Lack of a constituency for sustainable fisheries 	<ul style="list-style-type: none"> • Low awareness and understanding of implications of overfishing on food security and economic development • Polarization of stakeholders over means to achieve sustainable fishing



**FIGURE I
TARGET AREAS AND OFFICE LOCATIONS FOR THE FISH PROJECT**



2.0 RESULTS FRAMEWORK

The FISH Project will support national and local activities to achieve an overall expected result of 10 percent increase in fish stocks in selected focal areas (within the four target implementation areas) by 2010 (Table 2). The results framework provides expected results, indicators, and units of measure for biophysical parameters and institutional capacity. Targets for each indicator are established and reported in performance monitoring tables by year in Appendix A.

**TABLE 2
RESULTS FRAMEWORK FOR THE FISH PROJECT**

RESULT	INDICATORS
Strategic Objective 4: Productive and life sustaining natural resources protected through improved management and enforcement	
FISH Project Result: Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010	<p>PR 1 Abundance of selected fisheries resources in focal areas (% change in catch per unit effort compared to baseline based on fishery-independent methods)</p> <p>PR 2 Catch rate of selected fisheries in focal areas (Average % change in catch per unit effort compared to baseline based on fishery-dependent methods)</p> <p>PR 3 Reef fish biomass inside and adjacent to selected MPAs in focal areas (% change in biomass/500 m² compared to baseline)</p> <p>PR 4 Reef fish species richness inside and adjacent to selected MPAs in focal areas (% increase in No. of species/500 m² compared to baseline)</p> <p>PR 5 Benthic condition inside and adjacent to selected MPAs in focal areas (% change living coral cover compared to baseline)</p>
Intermediate Result 1: National and local capacity increased for fisheries management in four target areas	<p>IRI.1 Municipal fishers and crafts operating in target areas registered and licensed (% of municipal fishers operating in target area registered and licensed compared to baseline)</p> <p>IRI.2 Law enforcement units, prosecutors, and judiciary trained and/or assisted in fisheries law enforcement (No. of coastal law enforcement units established and/or improved and functional)</p> <p>IRI.3 Effort restrictions introduced in focal areas (No. of effort restrictions introduced)</p> <p>IRI.4 Marine protected areas established and/or improved to protect critical habitats, migration routes, and spawning areas and functional in focal areas (No. of MPAs and hectares at MPA rating level 2)</p> <p>IRI.5 Local government units in focal areas adopting CRM (No. of municipalities achieving basic requirements of CRM level I benchmarks)</p> <p>IRI.6 Inter-LGU and interagency collaborative agreements, local policy instruments and ecosystem-based fisheries management plans adopted by concerned stakeholders for fisheries management (No. of agreements/plans signed or adopted among relevant stakeholders)</p> <p>IRI.7 Reproductive health/population programs implemented and/or improved in each focal areas (No. of barangays integrating reproductive health/population management)</p>



**TABLE 2 (continued)
RESULTS FRAMEWORK FOR THE FISH PROJECT**

RESULT	INDICATORS	
Intermediate Result 2: National policy framework developed supporting sustainable fisheries	IR2.1	National Fisheries policies supporting sustainable fisheries (e.g. FAOs, MTDP, action agendas for international agreements) (No. of national policy instruments developed, reviewed or revised with FISH Project inputs)
Intermediate Result 3: Constituency of informed, disciplined, and cooperative stakeholders developed and engaged in fisheries management	IR3.1	Public-private partnerships supporting fisheries management, social infrastructure, population programs, and socioeconomic development (No. of public-private partnerships)
	IR3.2	Dissemination and utilization of fisheries management information materials, training modules, policy studies, and project lessons. (No. of information materials distributed and training/forum conducted)

3.0 METHODOLOGY

Performance monitoring will be conducted using a combination of tested methods and protocols to assess indicators of biophysical conditions and institutional capacity and performance defined by indicators in the results framework.

3.1 BASELINE ASSESSMENT

Baseline assessment will be conducted during the first year of the project to define the scope of ecosystem components to be evaluated and biophysical conditions before project activities are implemented. Baseline assessment for coral reef ecosystems will be conducted using the methods described in *Coral Reef Monitoring for Management (Uychiaoco et al., 2001)*. A combination of fishery-independent and fishery-dependent methods will be used to determine the baseline fish abundance in each focal area. A detailed description of baseline assessment methods, as well as selection of focal areas within the four target areas, is provided in the *Baseline Assessment Plan (FISH Doc. No. 09-FISH-2004)*.

3.2 TARGET AREA PROFILING

A profile of each target area will be prepared describing the existing socioeconomic, environmental, and institutional conditions in the area as it is related to fisheries and coastal resource management (CRM). Target area profiling may include:

- Review of existing studies and reports on fisheries and environmental conditions
- Review of local government records on registration and licensing, local legislation, annual budget allocations, and programs conducted
- Interviews and surveys to determine the level of illegal fishing activity and enforcement capacity

An institutional baseline will be established for each focal area municipality using the protocols described in *Monitoring and Evaluating for Municipal/City Plans and Programs for Coastal Resource Management*



(DENR-CMMO 2003). Focal area municipalities will participate in a benchmarking workshop to evaluate progress against the CRM benchmark system and document the current level of CRM implementation.

3.3 ANNUAL MONITORING

Annual monitoring will focus on measuring progress on institutional capacity and stakeholder engagement as defined in the intermediate result indicators. Benchmarks and protocols described in Monitoring and Evaluating for Municipal/City Plans and Programs for Coastal Resource Management (DENR-CMMO 2003) will be used to conduct local level institutional and stakeholder monitoring.

3.4 SPECIAL MONITORING EVENTS

Periodic monitoring events will be conducted in 2006, 2008, and 2010 in each focal area. This monitoring will focus on biophysical changes in comparison to baseline conditions as measured by the project result indicators, PR1 to PR5. To minimize the effects of seasonal variations in data collection, monitoring events will be conducted to coincide with the timeframe during which the baseline assessment was conducted in 2004.

USAID will contract an independent evaluation team to review the FISH Project in 2008. The accomplishments and results of the project to date will be evaluated to make recommendations to USAID on exercising the 2-year option period (2009 and 2010).

3.5 MONITORING EXPANSION AREAS

In the course of implementation, the FISH Project will continue to broaden management interventions in the form of additional MPAs, new effort restrictions, continued effort rationalization, and new species specific interventions. The impacts of these initiatives will be captured in the FISH Project Results by incorporating their calculated values in the estimates and by refining the process of estimation. The combined effects of additional interventions to stock biomass and to the catch rates will be reflected in PR1 and PR2, respectively, and the direct effect of MPAs to reef fish biomass will be reflected in PR3.

4.0 DATA ANALYSIS AND MANAGEMENT

All data analysis and management will be centralized in the Cebu office under the direct responsibility of the Deputy Chief of Party for field operations. Senior technical staff will be responsible for data analysis and review of project results and intermediate result indicators under their respective responsibilities (Table 3).



**TABLE 3
RESPONSIBILITY FOR DATA ANALYSIS BY PERFORMANCE INDICATOR**

Indicator	Responsible Staff
FISH Project Result	Chief of Party
PR1 – PR 2, IR1.1, IR1.3	Senior Fisheries Advisor
PR3 – PR 5, IR1.4	Senior Coastal Resource Management Advisor
IR1.2, IR1.5 – IR1.7	Senior Institutional Development Advisor
IR2.1	Senior Policy Advisor
IR3.1 – IR3.2	Senior IEC Advisor

All information and data collected as part of the performance monitoring system will be subject to strict quality assurance and quality control protocols from data collection, analysis, and management. Raw data will be transcribed and checked for accuracy in a timely manner. Preliminary analysis will be conducted to assess trends and need for adjustments. Information and data will be managed in a performance monitoring database system.

5.0 PERFORMANCE INDICATOR REPORTING

FISH Project performance will be assessed by measuring the change in marine fish stocks compared to baseline levels established in 2004 in the four focal areas. A 10 percent increase in marine fish stocks is targeted by the year 2010 as the overall FISH Project Result (FPR). A unique aspect of the FISH Project design is the provision to characterize biophysical conditions at the beginning of the project and to monitor changes resulting throughout project implementation.

Baseline assessment would be used to establish fisheries and habitat conditions in the four focal areas for 2004. Results of this exercise were consolidated in a report detailed in FISH Doc. No. 17-FISH/2005. Monitoring events will be conducted in 2006, 2008, and 2010 to assess project performance in comparison to the 2004 baseline levels. Three project result indicators (PR1, PR2, and PR3) will form the primary basis for measuring progress toward achieving the FPR (Table 2). Other project and intermediate result indicators are designed as supporting indicators, measuring progress toward the FPR.

Baseline levels for performance indicators (PR1 to PR5) will be established in each focal area in 2004. Monitoring of these indicators will be conducted in 2006, 2008, and 2010 to determine percent change compared to baseline conditions.

The overall FPR will be computed as the difference between Project Results (PR1, PR2, and PR3) measured in year 2010 and year 2004 expressed as percentage change compared to baseline assessment conducted in year 2004. The overall FPR will be the weighted average of the focal area project results using estimated surface area of the respective focal area as the weighing factor. Reef fish species richness (PR4) and benthic habitat condition (PR 5) will serve as supporting indicators of the overall FPR. A detailed description is provided in Estimation Procedure of FISH Project Result (FISH Doc. No. 16-FISH/2005)

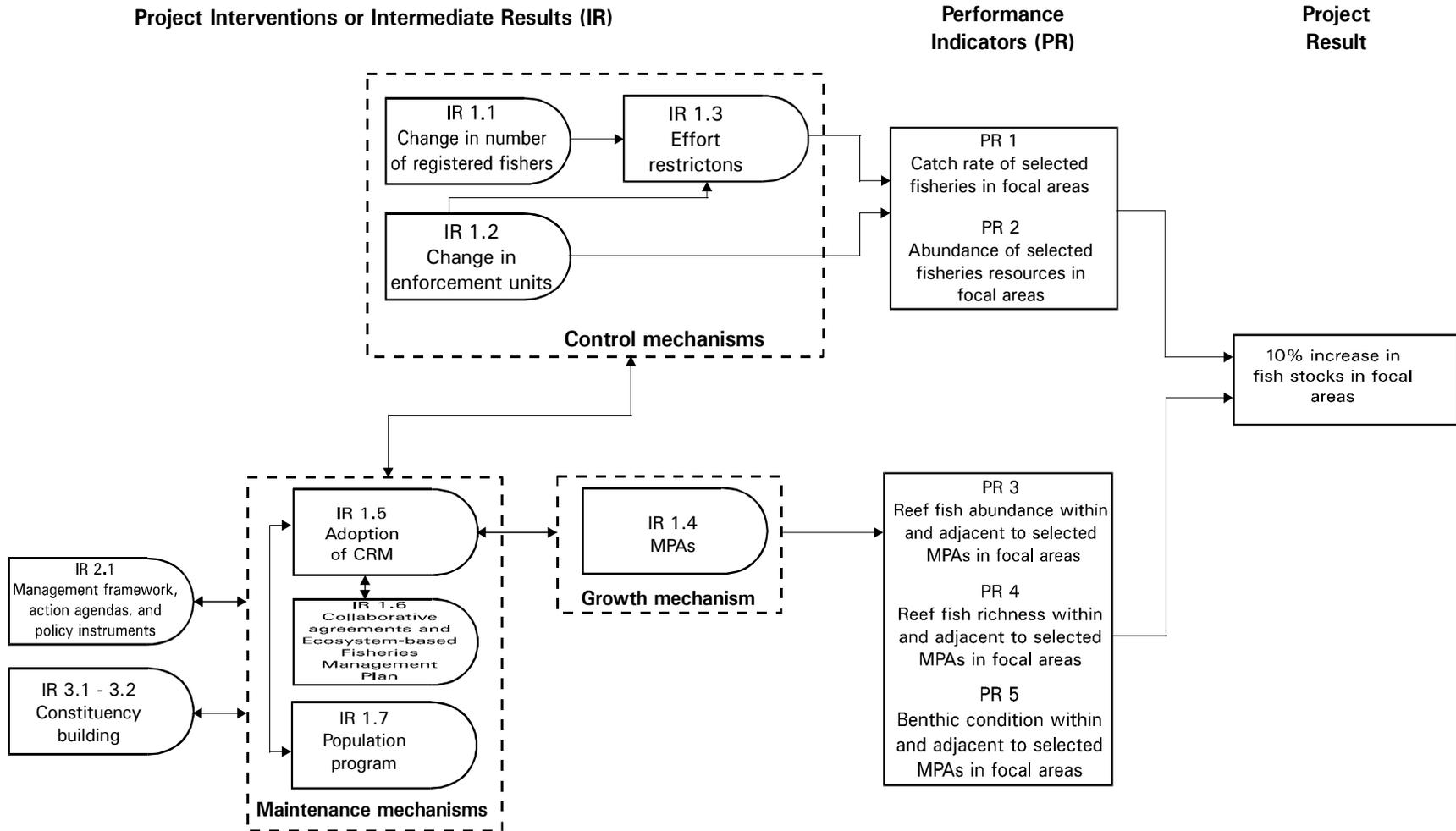
Other indicators will also be used to evaluate project performance. These indicators form part of the overall FISH Project Result Framework and are described in Table 2 and Appendix A. Figure 2



illustrates the relationship between the overall FISH Project results (FPR), project result indicators (PR), intermediate result indicators (IR) and project interventions.



FIGURE 2
RELATIONSHIP AMONG PROJECT RESULT, PERFORMANCE INDICATORS, AND INTERMEDIATE RESULTS



6.0 REFERENCES

DENR-CMMO (Department of Environment and Natural Resources—Coastal and Marine Management Office). 2003. Monitoring and Evaluating Municipal/City Plans and Program for Coastal Resource Management. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines. 93 p.

Fisheries Improved for Sustainable Harvests (FISH) Project, 2004. Baseline Assessment Plan, FISH Doc. No. 06-FISH-04, USAID, Manila, Philippines.

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Fisheries Improved for Sustainable Harvests (FISH) Project, 2005. Consolidated Report: Baseline Assessment of the Capture Fisheries and Marine Protected Areas (Reef Habitats) in the FISH Project's Focal Areas, FISH Doc. No. 17-FISH-05, USAID, Manila, Philippines.

Nanola Jr., C.L., H. Arceo, A. Uychianco, and P.M. Alino, 2004. Monitoring the effects of marine protected areas in CRMP Learning Areas (1997 – 2003). CRMP Document No. 11-CRM/2004.

Uychiaoco A.J., S.J. Green , M.T. De la Cruz, P.A. Gaito P.A., H.O. Arceo, P.M. Alino, A.T. White. 2001. Coral Reef Monitoring for Management. University of the Philippines Marine Science Institute, United Nations Development Programme Global Environment Facility-Small Grants Program, Guiuan Development Foundation, Inc., Coastal Resource Management Project, 110 p.

White, A.T., A.T. Meneses and M.F. Ovenden. 2004. Management rating system for marine protected areas: An important tool to improve management, p. 226-231. In DA-BFAR (Department of Agriculture-Bureau of Fisheries and Aquatic Resources). In turbulent seas: The status of Philippine marine fisheries. Coastal Resource Management Project, Cebu City, Philippines. 378 p.



APPENDIX A
PERFORMANCE MONITORING TABLES
(16 pages)

ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR:	Change in marine fish stocks compared to 2004 baseline levels in four focal areas
UNIT OF MEASURE:	Average percent change of project results indicators PR1, PR2, and PR3
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. The FISH project result indicator is calculated as the average of PR1, PR2, and PR3

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	1	
2007		
2008	5.5	
2009		
2010	10	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR (PRI):	Abundance of selected fisheries resources in focal areas
UNIT OF MEASURE:	Percent change in catch per unit effort compared to 2004 baseline based on fishery-independent methods
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	<p>PRI will be measured through test fishing using methods employing selected fishing gears used in the focal area. The manner that this is being done is explained in the Baseline Assessment Plan and is distinguished by being independent of the actual fishing activities in the area.</p> <p>PRI is measured as the weighted average of catch per unit effort of fishing gears used during the test fishing with the number of replicates used as the weighting factor.</p>

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	0	
2007		
2008	5	
2009		
2010	10	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR (PR2):	Catch rate of selected fisheries in focal areas
UNIT OF MEASURE:	Percent change in catch per unit effort compared to baseline based on fishery-dependent methods
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	<p>PR2 will be measured through catch- and-effort monitoring of commonly used fishing gears in the focal area. The manner that this is being done is explained in the Baseline Assessment Plan and is distinguished by using common fishing practices in the area of data.</p> <p>PR2 is measured as the change in the catch per unit of effort of various fishing gears used during catch-and-effort monitoring with the number of samples taken as the weighting factor.</p>

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	0	
2007		
2008	5	
2009		
2010	10	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR (PR3):	Reef fish biomass inside and adjacent to selected MPAs in focal areas
UNIT OF MEASURE:	Percent change in biomass per 500 m ² compared to baseline
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	<p>PR3 is measured through fish visual census inside and adjacent to selected MPAs in the focal area. The manner that this is being done is explained in the Baseline Assessment Plan using standard and accepted protocols.</p> <p>PR3 is the pooled value of fish biomass (in tons/km²) measured through fish visual census inside and adjacent to MPAs. The weighting factor for PR3 is the product of the potential yield of coral reef ecosystem and the extent of the coral reef in each focal area.</p>

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	4	
2007		
2008	8	
2009		
2010	12	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR (PR4):	Reef fish species richness inside and adjacent to selected MPAs in focal areas
UNIT OF MEASURE:	Average of percent increase in number of species compared to baseline
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	Species richness measured as the number of reef fish species counted along a 50 m long x 10 m wide transect using standard protocols described in the Baseline Assessment Plan. Species richness is a supporting indicator to the overall FISH project result

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	2	
2007		
2008	5	
2009		
2010	10	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
PROJECT RESULT:	Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010
APPROVED:	
INDICATOR (PR5):	Benthic condition inside selected MPAs in focal areas
UNIT OF MEASURE:	Percent change of living coral cover compared to baseline
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; methodology for baseline assessment and subsequent special monitoring events described in the Baseline Assessment Plan
SOURCE ORGANIZATION:	FISH Project team and local academic institutions
INDICATOR DESCRIPTION:	Benthic condition measured along 50 m transects using standard point-intercept method described in the Baseline Assessment Plan. Benthic condition is a supporting indicator to the overall FISH project result

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005		
2006	2	
2007		
2008	4	
2009		
2010	10	

COMMENTS:

2004-Baseline assessment conducted in four focal areas in accordance with Baseline Assessment Plan



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IRI.1):	Municipal fishers and crafts operating in target areas registered and licensed
UNIT OF MEASURE:	Number of LGUs adopting registration and licensing system
SOURCE DOCUMENT:	Local government unit registry
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Registration and licensing system involves enactment and implementation of appropriate ordinance by the municipal government.

YEAR (CY)	PLANNED	ACTUAL
2004	0	
2005	0	
2006	4	
2007	8	
2008	16	
2009	16	
2010	16	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IRI.2):	Law enforcers, prosecutors, and judiciary trained or assisted in coastal law enforcement
UNIT OF MEASURE:	Number of coastal law enforcement units established or improved and functional in each target area
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Indicator tracks number of coastal law enforcement units. A coastal law enforcement unit is a group of individuals constituting a legally established team.

YEAR (CY)	PLANNED	ACTUAL
2004	2	
2005	13	
2006	16	
2007	17	
2008	17	
2009	17	
2010	17	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IR 1.3):	Effort restrictions introduced in focal areas
UNIT OF MEASURE:	Number of effort restrictions adopted
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Effort restrictions include spatial (MPAs), temporal (seasonal closures), and gear-related (prohibitions on highly efficient gears) fishing restrictions

YEAR	PLANNED	ACTUAL
2004	0	
2005	0	
2006	4	
2007	8	
2008	12	
2009	16	
2010	20	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IR 1.4):	Marine protected areas (MPA) established or improved to protect critical habitats, migration routes, and spawning areas and functional in focal areas
UNIT OF MEASURE:	Number and hectares of MPAs established and enforced
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. MPA rating system (defined in Appendix B) will be used as standards to determine functionality of MPA. All MPAs should at least achieve level 2.

YEAR (CY)	PLANNED		ACTUAL	
	Number	Hectares	Number	Hectares
2004	8	160		
2005	8	160		
2006	12	240		
2007	16	320		
2008	20	400		
2009	22	440		
2010	24	480		

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IR 1.5):	Local government units in focal areas adopting CRM
UNIT OF MEASURE:	Number of municipalities adopting CRM program and hectares of municipal waters under improved management)
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. CRM Level I benchmarks are defined in the M&E guidelines for municipal CRM attached as appendix C (DENR-CMMO 2003). The municipal waters under improved management pertains to the area within the 5 kms from the coastline

YEAR	PLANNED		ACTUAL	
	Number	Hectares	Number	Hectares
2004	5	46,912		
2005	7	76,243		
2006	14	226,313		
2007	15	239,096		
2008	16	248,182		
2009	16	248,182		
2010	16	248,182		

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IR 1.6):	Inter-LGU and interagency partnerships evidenced by collaborative agreements (MOAs, MOUs, joint activities), policy instruments, fisheries management plans, or other similar mechanisms
UNIT OF MEASURE:	Number of agreements/plans signed or adopted among relevant stakeholders
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Indicator tracks number of interagency MOA's, ordinances, and plans at local, regional, or local levels signed, adopted, or revised

YEAR	PLANNED	ACTUAL
2004	2	
2005	2	
2006	2	
2007	3	
2008	4	
2009	4	
2010	4	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National and local capacity increased for fisheries management in four target areas
APPROVED:	
INDICATOR (IR 1.7):	Reproductive health/population programs implemented or improved in each focal area
UNIT OF MEASURE:	Number of barangays integrating reproductive health/population management
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Indicator tracks number of barangays with development plans and activities

YEAR	PLANNED	ACTUAL
2004	4	
2005	12	
2006	18	
2007	21	
2008	21	
2009	21	
2010	21	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	National policy framework developed supporting sustainable fisheries
APPROVED:	
INDICATOR (2.1):	National fisheries policies supporting sustainable fisheries
UNIT OF MEASURE:	Number of national policy instruments developed, reviewed or revised with FISH Project inputs
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. National policy instruments include national fisheries and related laws; administrative orders, rules and regulations; and plans and action programs of relevant government agencies

YEAR	PLANNED	ACTUAL
2004	0	
2005	2	
2006	4	
2007	7	
2008	10	
2009	11	
2010	12	



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	Constituency of informed, disciplined, and cooperative stakeholders developed and engaged in fisheries management
APPROVED:	
INDICATOR (3.1):	Public-private partnerships supporting fisheries management, social infrastructure, population programs, and socioeconomic development in target areas
UNIT OF MEASURE:	No. of public-private partnerships
SOURCE DOCUMENT:	Annual FISH Project Performance Reports
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Public-private partnerships include national and local collaborative agreements, projects, and activities that directly or indirectly support fisheries management between any entities such as the FISH Project, national or local government, private sector, or NGO

YEAR	PLANNED	ACTUAL
2004	0	
2005	7	
2006	10	
2007	14	
2008	14	
2009	14	
2010	14	

COMMENTS:

2004-Baseline levels established through target area profiling



ORGANIZATION/PROGRAM:	USAID PHILIPPINES
STRATEGIC OBJECTIVE:	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED THROUGH IMPROVED MANAGEMENT AND ENFORCEMENT
INTERMEDIATE RESULT:	Constituency of informed, disciplined, and cooperative stakeholders developed and engaged in fisheries management
APPROVED:	
INDICATOR (IR 3.2):	Dissemination and utilization of fisheries management information materials, training modules, policy studies, and project lessons
UNIT OF MEASURE:	Number of information materials distributed and training/forums conducted
SOURCE DOCUMENT:	Annual FISH Project Performance Reports; USAID TrainNet database
SOURCE ORGANIZATION:	FISH Project team
INDICATOR DESCRIPTION:	Planned and actual values are cumulative. Indicator tracks the number of different project products and training courses, workshops, and forums conducted at national (at least 1 per year) and local levels (at least 1 per focal area) to inform and build constituencies for sustainable fisheries

YEAR (CY)	PLANNED		ACTUAL	
	Information Materials Produced	Training Courses Developed and Conducted	Information Materials Produced	Training Courses Developed and Conducted
2004	11	12		
2005	33	32		
2006	45	48		
2007	77	64		
2008	99	72		
2009	113	80		
2010	135	80		

COMMENTS:

2004-Baseline levels established through target area profiling

Number of discussed materials and trainings conducted will be presented as support measures.



APPENDIX B
MARINE PROTECTED ARE RATING SYSTEM
(3 pages)

MARINE PROTECTED AREA RATING SYSTEM¹

Level I: Marine Protected Area *Initiated*: Passing (Year 1) (6 points required)

Criteria or activity satisfied	0/1
Site selected	
Site surveyed with baseline assessment complete (Reports available on fish abundance, coral substrate and information on issues and concerns)	
Education program started (Conducted at least 2 types of MPA related trainings/orientation for the directly affected barangay/s)	
Social acceptance sought (Consulted members of the affected stakeholders: fishers, resource users and social groups, both men and women)	
Management body membership tentatively determined (The identified management core group has met at least twice regarding the MPA)	
Preliminary management plan drafted	

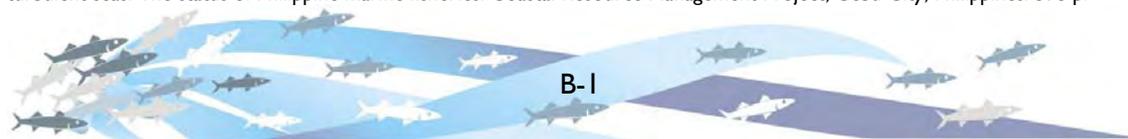
Level II: Marine Protected Area *Established*: Fair (Year 1 or 2) (12 pts required)

Criteria or activity satisfied	0/1
Acceptance approved by community and documented (Documented either through barangay resolution or signature campaigns as well as documentation of public consultations/meetings)	
Education program raising awareness about MPA benefits (Conducted at least 4 documented IEC activities regarding MPAs with participation of affected barangay/s)	
Management body formally organized and recognized (Management group has legal mandate from local government or is recognized by the local government)	
Management plan adopted by community and LGU or PAMB (Management plan initially implemented and/or endorsed by LGU/PAWB)	
Ordinance approved by municipal council	
Anchor buoys, marker buoys and/or boundary marks installed	
Management activities started (Conducted at least 2 MPA related activities such as: maintenance of buoys, patrolling, apprehension of violators, user-fees implemented, etc.)	

Level III: Marine Protected Area *Enforced*: Good (Year 2) (20 pts required)

Criteria or activity satisfied	0/1
Sanctuary rules and/or mgt plan posted at strategic locations	
Education program increased awareness about MPA functions/benefits (Conducted at least 5 trainings for capacity building and community empowerment with representation from fishers, resource users and social groups, both men and women. Process should be documented.)	

¹ White, A.T., A.T. Meneses and M.F. Ovenden. 2004. Management rating system for marine protected areas: An important tool to improved management, p. 226-231. In DA-BFAR (Department of Agriculture-Bureau of Fisheries and Aquatic Resources). In turbulent seas: The status of Philippine marine fisheries. Coastal Resource Management Project, Cebu City, Philippines. 378 p.



**Level III: Marine Protected Area Enforced: Good (Year 2) (20 pts required)
(continued)**

Criteria or activity satisfied	0/1
Biophysical monitoring measuring habitat condition and changes (Documented surveys at least once after the baseline assessment, using standard/ accepted method.)	
Patrolling and surveillance conducted (At least 3 fish wardens on rotation assigned to guard and patrol the area day and night)	
Marker and/or anchor buoys maintained (Budget allocated for maintenance of buoys. Can be a part of or an item within the municipal CRM budget)	
MPA outpost or other structures constructed (Guardhouse and/or other MPA-related structures constructed.)	
Management body active (Members attend meetings regularly; Assist in enforcement of the MPA; Participates in regular monitoring activities)	
Budget from local gov't or from other sources allocated and is accessible for MPA mgmt (There is a legal document by the local government or an agreement with the private sector allocating budget for MPA management)	
Fishing effectively stopped inside of sanctuary zone (No fishing-related violations/ apprehensions reported in the sanctuary for the past six (6) months)	
Illegal and destructive fishing reduced outside of MPA (Violations/apprehensions reported outside sanctuary was reduced by 50% for the last 6 months)	

Level IV: Marine Protected Area Sustained: Very Good (Year 3 or after) (30 points)

Criteria or activity satisfied	0/1
MPA management plan updated and adopted in a participatory process (Revisions made with the participation of all stakeholders: fishers, diver operators, partners, local government units, resource users and social groups, both men and women)	
Biophysical monitoring and feedback of results implemented for 2 years or more (Documented surveys using standard/accepted method. Reports are available.)	
Monitoring includes local participation (Locals were trained to do monitoring.)	
Budget from gov't/from other sources allocated and is accessible for 2/more consecutive years (There is a legal document made by the local government or an agreement with a funding source allocating budget for MPA management. Can be a part of or an item within the municipal CRM budget)	
Management body trained and capacitated to run the MPA (Trainings completed on: Leadership and values formation, Monitoring and evaluation, Management planning, Paralegal and environmental laws, Law enforcement)	
Enforcement system fully operational (Enforcement group with clear mandate and workplan; enforcement system fully operational for at least 1 year)	
Illegal and destructive activities stopped inside and within vicinity of MPA (No violations/apprehensions reported in the past year.)	
Environment friendly enterprise and/or fees initiated as part of MPA (Imposes collection of user-fees; sells environment friendly souvenirs to tourists, etc.)	



Level V: Marine Protected Area Institutionalized: Excellent (Year 4 or after) (36 pts)

Criteria or activity satisfied	0/1
MPA management plan incorporated in the LGU development plan	
Monitoring of impacts on environment & socio-economics conducted & feedback of results completed (Reports on biophysical assessment, attitude and perception surveys and economic valuation studies conducted are available. Results of these studies have been reported back to stakeholders.)	
Information on MPA management plan, rules and monitoring maintained (Information campaign has reached 60% of affected communities through brochures, posters and installation of signboards.)	
Revenues from enterprise and/or fees sustained and accounted for (Collection of fees consistently enforced and recorded properly; financial report easily accessible.)	
Management body capacitated for financial management as needed (Management body is able to handle their money effectively; facilitates wise use and proper documentation)	
Management plan reviewed and updated (Further refinement of the management plan after it has been revised.)	
MPA used as a study tour site, residents advocate for MPAs (Presence of an identified group that conducts tours and are capable of giving relevant information about the MPA)	
Expansion strategies considered or initiated (There are plans of increasing the size of the MPA and/or enlarging the scope of activities in the MPA: e.g. outreach programs, culturing of clams, etc.)	

Total points accumulated²: _____

² Total possible points: 39

- All points are cumulative
- Points from higher levels can be used to satisfy lower rating levels
- Required points for Level
 - I : Passing = 6 points accumulated
 - II : Fair = 12 points accumulated
 - III : Good = 20 points accumulated
 - IV : Very Good = 30 points accumulated
 - V : Excellent = 36 points accumulated



APPENDIX C
PERFORMANCE MONITORING TABLES
(9 pages)

Municipality/City Benchmarks for the Three Levels of CRM

Benchmark Category	Municipality/City Benchmarks for CRM		
 Overall requirements for CRM Certification by level	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 20%; text-align: center;"> <p>Pre-level I</p> <p>←--- 0 1 2 3 4 5 years ---></p> </div> <div style="width: 60%; text-align: center;"> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="width: 30%; background-color: #e0e0e0; padding: 10px; border: 1px solid black;"> <p style="text-align: center;">Level 1: Beginning CRM</p> <p style="text-align: center;">Acceptance of CRM as a basic service of municipal/city government with planning and field interventions initiated (1-2 years)</p> <hr/> <ul style="list-style-type: none"> ✓ Multi-year CRM plan drafted ✓ Baseline assessment conducted ✓ CRM-related organizations formed and are active ✓ Annual budget allocated for CRM ✓ Shoreline/foreshore management measures planned and initiated ➤ At least 2 CRM best practices planned and initiated </div> <div style="width: 30%; background-color: #e0e0e0; padding: 10px; border: 1px solid black;"> <p style="text-align: center;">Level 2: Intermediate CRM</p> <p style="text-align: center;">Implementation of CRM plans underway with effective integration to local governance (2-5 years)</p> <hr/> <ul style="list-style-type: none"> ✓ Multi-year CRM plan finalized and adopted ✓ Monitoring plan developed for assessing socioenvironmental conditions ✓ CRM-related organizations are active and effective ✓ Financial and human resources assigned permanently to CRM activities ✓ Shoreline/foreshore management plan adopted with implementing guidelines ➤ At least 4 CRM best practices implemented with measured success </div> <div style="width: 30%; background-color: #e0e0e0; padding: 10px; border: 1px solid black;"> <p style="text-align: center;">Level 3: Advanced CRM</p> <p style="text-align: center;">Sustained long-term implementation of CRM with monitoring, measured results, and positive returns (5 years or more)</p> <hr/> <ul style="list-style-type: none"> ✓ Multi-year CRM plan implemented, reviewed and revised as necessary ✓ Socioenvironmental conditions assessed in accordance with monitoring plan ✓ CRM-related organizations effective and supported financially through municipal/city budget or revenue-generating mechanisms ✓ Annual programming and budget sufficient to implement the plan ✓ Shoreline/foreshore management effective with regular monitoring and enforcement of guidelines ➤ At least 6 CRM best practices implemented with measured results and positive returns </div> </div> </div> </div>		



Benchmark and Rationale	Benchmark Description
<p>Coastal resource assessment</p> <p><i>Resource assessment is necessary to describe the status of habitats and fisheries and the socioeconomic condition of coastal communities in the municipality/city. The results of coastal resource assessment are used to plan short and long-term interventions and monitor changes in socio-environmental conditions.</i></p>	<p>Level 1: Coastal environmental profile developed</p> <ul style="list-style-type: none"> • Coastal environmental profile developed through secondary data compilation and baseline assessment (e.g. PCRA, rapid assessment, scientific surveys) of coastal resources and socioeconomic and environmental conditions in coastal areas • Condition of fisheries, coastal habitats and other resources and their uses assessed • General socioeconomic condition of the municipality/city described • Coastal database and information system established <p>Level 2: Monitoring plan developed and implemented for assessing socio-environmental conditions</p> <ul style="list-style-type: none"> • Monitoring plan for assessing biophysical and socioeconomic conditions developed to assess changes resulting from CRM plan implementation • Biophysical and socioeconomic assessments conducted on a regular basis for at least 2 years • Linkages with national government agencies, NGOs, and academic institutions involved in monitoring developed to assess conditions and use data for decision-making • Key indicators identified and highlighted in the monitoring plan • Coastal database/information management system established and operational <p>Level 3: Socio-environmental conditions assessed in accordance with monitoring plan</p> <ul style="list-style-type: none"> • Biophysical and socioeconomic assessments conducted on a regular basis for at least 5 years • Data analysis conducted and compared to baseline conditions • Coastal database and information management system updated regularly
<p>Multi-year CRM plan</p> <p><i>The multi-year CRM plan provides the overall framework and direction in managing the coastal resources of the municipality /city. A multi-year plan sets the short and long-term strategies, and consolidates programs, targets and priorities of the local governments in addressing coastal issues through a participatory process and public consultation.</i></p>	<p>Level 1: Multi-year CRM plan drafted</p> <ul style="list-style-type: none"> • Draft multi-year CRM plan prepared through stakeholder consultations which may include: description of the area, maps, management goals and objectives, strategies and actions, institutional and legal framework, timeline and funding requirements, and monitoring and evaluation system • Coastal environmental profile used as basis for planning <p>Level 2: Multi-year CRM plan finalized and adopted</p> <ul style="list-style-type: none"> • Multi-year CRM plan finalized and adopted after public hearings and with supporting municipal/city resolution/ordinance <p>Level 3: Adopted multi-year CRM plan reviewed annually and revised as needed</p> <ul style="list-style-type: none"> • Annual review of multi-year CRM plan conducted • Results of monitoring and evaluation of CRM plan implementation and other program reviews considered as inputs to CRM plan revisions • Land and water use plans reconciled and consistent



Benchmark and Rationale	Benchmark Description
<p>Annual CRM programming and budgeting</p> <p><i>Annual and appropriate levels of investment are needed to sustain local CRM plans and programs. Municipal/city CRM unit or office with trained staff and operating budget is also needed to sustain efforts in implementing CRM.</i></p>	<p>Level 1: Annual budget allocated for CRM</p> <ul style="list-style-type: none"> Annual municipal/city budget allocated for CRM and other sources of funding leveraged or secured in support of the CRM plan <p>Level 2: Financial and human resources assigned to CRM activities</p> <ul style="list-style-type: none"> Annual budget allocated and human resources assigned to CRM activities CRM budget allocated annually for at least 2 years supplemented by other sources of funding for CRM plan implementation, as needed Trained CRM staff assigned to municipality/city with operating budget <p>Level 3: Annual programming and budget sufficient to implement the plan</p> <ul style="list-style-type: none"> Annual programming and budget allocated for at least 5 years CRM unit established under MAO or CRM office with staff and budget
<p>CRM-related organizations</p> <p><i>The success of CRM activities can be attributed to well-organized communities in the form of either people's organizations, FARMC or technical working groups. Through community organizing, people are empowered to be partners of the local government units in implementing CRM plans and programs.</i></p>	<p>Level 1: CRM-related organizations formed and active</p> <ul style="list-style-type: none"> M/CFARMC and at least 1 other CRM-related organization (e.g. TWG, Bantay Dagat, people's organization) formed and active as evidenced by regular meetings (at least quarterly), trainings conducted and activities accomplished <p>Level 2: CRM-related organizations active and effective</p> <ul style="list-style-type: none"> M/CFARMC and at least 1 other CRM-related organization contributing to local policy formulation, CRM plan review and implementation <p>Level 3: CRM-related organizations effective and supported financially through municipal/city budget or revenue-generating mechanisms</p> <ul style="list-style-type: none"> Active and effective M/CFARMC and at least 1 other CRM-related organization sustained and supported with funding from various sources
<p>Shoreline/foreshore management</p> <p><i>Infrastructure and other development activities in shoreline and foreshore areas often result in adverse impacts on coastal habitats and fisheries. Setback rules, regulation and monitoring of existing and planned development activities, and measures to mitigate their impacts should be carefully planned and effectively implemented.</i></p>	<p>Level 1: Shoreline/foreshore management measures planned</p> <ul style="list-style-type: none"> Existing shoreline and coastal land use reviewed Strategies to protect shoreline and foreshore areas from destructive development identified (e.g. setback requirements, zoning, mangrove reforestation, or other shoreline/foreshore management measures) Programs planned to protect shoreline and foreshore areas (e.g. mangrove reforestation, ordinances drafted providing for protection of shoreline and foreshore areas) Shoreline and foreshore management measures incorporated into CRM or land-use plan <p>Level 2: Shoreline/foreshore management measures adopted with implementing guidelines</p> <ul style="list-style-type: none"> Shoreline/foreshore management measures adopted through local ordinance and implemented through local business and building permits Shoreline management measures (e.g. setback requirements, zoning, mangrove reforestation or other shoreline/foreshore management measures) implemented to minimize negative impacts of development in coastal areas



Benchmark and Rationale	Benchmark Description
	<p>Level 3: Shoreline/foreshore management effective with regular monitoring and enforcement</p> <ul style="list-style-type: none"> Regulation, monitoring, and enforcement of shoreline/foreshore use implemented in accordance with existing ordinances, permits and plans Illegal construction in shoreline setbacks and foreshore areas minimized
<p>Municipal water delineation</p> <p><i>The delineation of municipal waters defines the geographic extent of the municipality/ city’s jurisdiction for taxation or revenue generation, law enforcement responsibilities, resource allocation, and general management powers. A municipality/city with delineated municipal waters can ensure the protection of the rights of its resident small fishers in the preferential use of their territorial waters.</i></p>	<p>Level 1: Municipal water boundary delineated in accordance with prescribed guidelines</p> <ul style="list-style-type: none"> Preliminary maps and technical description of municipal water boundaries determined in accordance with prescribed guidelines Inter-LGU discussions and workshops held to identify potential boundary issues in accordance with prescribed guidelines <p>Level 2: Municipal water boundaries adopted</p> <ul style="list-style-type: none"> Local ordinance enacted to establish municipal water boundaries after public review and consultation and certification by NAMRIA <p>Level 3: Municipal water boundaries utilized as basis for LGU jurisdiction and protection of small fishers preferential-use rights</p> <ul style="list-style-type: none"> Municipal water boundaries utilized for CRM and other activities (e.g. zoning, law enforcement, regulation, taxation, etc.) Small fishers enjoying preferential use of municipal waters Monitoring, control and surveillance of activities conducted to stop illegal activities and destructive practices in municipal waters
<p>Coastal zoning</p> <p><i>Coastal zoning minimizes resource-use conflicts in coastal areas. Different use zones or areas are set aside for protection, rehabilitation, multiple-use purposes, and other types of human activities. Management of each zone is guided by regulatory mechanisms. Integrating the water use zones into the land use plan of municipality/city would ensure rational and wise utilization of the area.</i></p>	<p>Level 1: Coastal zoning planned and initiated</p> <ul style="list-style-type: none"> Existing water and land uses identified Existing and potential areas of conflicts identified Existing zoning plans reviewed <p>Level 2: Coastal zoning harmonized, adopted and implemented</p> <ul style="list-style-type: none"> Land and water use plans reconciled and harmonized Development activities in coastal areas monitored and undertaken in accordance with coastal zoning requirements <p>Level 3: Coastal zoning effective and sustained</p> <ul style="list-style-type: none"> Coastal zoning requirements reviewed regularly Resource use conflicts minimized Regular monitoring for compliance
<p>Fisheries management</p> <p><i>Fisheries management is an integral component of CRM. Regulatory and other management measures to limit access to fisheries resources is essential in the regeneration of depleted fish stocks. Fisheries management aims to improve fisheries productivity, equity in the use of and access to the resource base, and ecosystem integrity.</i></p>	<p>Level 1: Fisheries management measures planned and initiated</p> <ul style="list-style-type: none"> Regulatory mechanisms are planned and initiated to limit access to and pressure on fishery resources, and may include licensing, limitations on number of fishers, closed seasons, gear restrictions, limitations on size of fish caught, color coding of boats, and other catch restrictions <p>Level 2: Fisheries management measures implemented</p> <ul style="list-style-type: none"> Municipal fishers registered and licensed Regulatory mechanisms for fisheries management adopted through local legislation and enforced for at least 2 years Monitoring plan for municipal fisheries developed and implemented



Benchmark and Rationale	Benchmark Description
	<p>Level 3: Fisheries management measures sustained with positive impacts</p> <ul style="list-style-type: none"> • Regulatory mechanisms sustained for at least 5 years • Number of municipal fishers regulated and limited • Improved compliance with fisheries regulations • Increased catch per unit effort
<p>Marine protected areas</p> <p><i>Marine protected areas such as reserves, sanctuaries and parks provide protection and conservation of critical habitats and reef-associated fisheries. A well-planned and managed MPA leads to marine biodiversity conservation and increased fisheries production. Revenues can also be generated from tourism and other activities in marine protected areas.</i></p>	<p>Level 1: Marine protected areas planned or established</p> <ul style="list-style-type: none"> • Participatory processes involving coastal stakeholders in assessment and planning initiated for the establishment of at least one marine protected area (e.g. coral reefs, seagrass beds, other important coastal habitat) • Social acceptance for site selection sought • Site selection with baseline assessment conducted • Management measures or plan drafted • Ordinance enacted or revised for establishment and management of a marine protected area <p>Level 2: Marine protected areas managed and enforced</p> <ul style="list-style-type: none"> • Marine protected area management sustained for at least 2 years • Management body and plan finalized, adopted, and accepted by community • Marker buoys and signs installed • Biophysical and socioeconomic conditions monitored <p>Level 3: Marine protected area management sustained with positive impacts</p> <ul style="list-style-type: none"> • Management activities sustained for at least 5 years • Biophysical improvement measured • Socioeconomic benefits accruing to LGU and community either through revenue-generating mechanisms, increased fish catch, or enhanced sense of community pride • Compliance with MPA rules and regulation • Revenue-generating mechanisms established
<p>Mangrove management</p> <p><i>Mangrove ecosystems are extremely productive and supplies resources such as wood, fish, and crustaceans as well as many other ecological and economic benefits for coastal municipalities/cities. Mangrove forests managed either through a community-based forest management agreement or other management measures will contribute greatly to the regeneration of depleted fisheries resources and provide mangrove-friendly economic activities for coastal communities.</i></p>	<p>Level 1: Mangrove management measures planned or established</p> <ul style="list-style-type: none"> • Baseline assessment and inventory of mangrove areas conducted • Community-based forest management agreements, mangrove planting, protection or other management and rehabilitation measures planned or established <p>Level 2: Mangrove areas managed and protected</p> <ul style="list-style-type: none"> • Community-based mangrove management agreements awarded or other management and rehabilitation measures established and sustained for at least 2 years <p>Level 3: Mangrove areas sustained with positive impacts</p> <ul style="list-style-type: none"> • Economic benefits derived from mangrove management options • Mangrove areas rehabilitated and maintained • Mangrove management measures sustained for at least 5 years



Benchmark and Rationale	Benchmark Description
<p>Solid waste management</p> <p><i>Solid waste management through segregation, volume reduction and waste minimization is necessary to ensure cleanliness in the coastal environment, particularly the shoreline and foreshore area. Proper management and disposal of solid waste minimizes negative impacts to coastal resources and protects people from diseases caused by wastes and pollution.</i></p>	<p>Level 1: Solid waste management system planned and initiated</p> <ul style="list-style-type: none"> National and local laws on solid waste management reviewed, public orientation sessions conducted Solid waste management board established Waste segregation, minimization, collection, and disposal systems planned and initiated Information, education and communication conducted <p>Level 2: Solid waste management system operational</p> <ul style="list-style-type: none"> Solid waste management board active Waste segregation, minimization, collection, and disposal systems operational Inappropriate waste disposal sites in coastal areas identified with plans for mitigation and new site selection Waste disposal sites designated to minimize impact on coastal areas <p>Level 3: Solid waste management system effective and sustained with positive impacts</p> <ul style="list-style-type: none"> Waste segregation, minimization, collection, and disposal systems effective and monitored with measured reduction in waste generated and disposed Solid waste disposed in coastal areas minimized Compliance with solid waste management regulations
<p>Upland/watershed management</p> <p><i>Rehabilitation and protection of uplands and watershed areas and implementation of sustainable upland farming practices are important to ensure minimization of erosion that causes shoreline destruction and siltation of coastal habitats.</i></p>	<p>Level 1: Upland/watershed management program planned and initiated</p> <ul style="list-style-type: none"> Upland/watershed management issues affecting the coastal zone identified, including upland sources of siltation and other pollution carried by streams and rivers from deforestation, and domestic, industrial and agricultural pollution Baseline conditions established Watershed management plan drafted through multisectoral consultations, public hearings, and, if necessary, inter-LGU collaboration (such as in cases where watershed system spans several LGUs) <p>Level 2: Upland/watershed management program adopted and implemented</p> <ul style="list-style-type: none"> Upland/watershed management plan adopted through local legislation (or through inter-LGU agreements, if necessary) after public hearings Reforestation projects implemented Pollution minimization and prevention programs adopted by industries. Pesticide reduction program adopted by farmers Solid waste management system in place Water quality monitoring program implemented in rivers and coastal waters through multisectoral, inter-LGU and inter-agency collaboration <p>Level 3: Upland/watershed management program effective and sustained with positive impacts</p> <ul style="list-style-type: none"> Measurable improvements in forest cover pollution reduction and quality of river and coastal waters



Benchmark and Rationale	Benchmark Description
<p>Coastal environment-friendly enterprise development <i>Coastal environment-friendly enterprises are implemented to augment income of the fishers while limiting their access to the sea. They also encourage stakeholder participation in different rehabilitation and conservation activities in the municipality/city.</i></p>	<p>Level 1: Coastal environment-friendly enterprises that promote conservation and sustainable use of coastal resources planned and initiated</p> <ul style="list-style-type: none"> Fisherfolk/coastal communities targeted for employment in non-fishing livelihoods or low-impact mariculture. (Note: The following are <u>not</u> coastal environment-friendly enterprises: use of <i>payaws</i>, fish corrals, artificial reefs, improved fishing technologies, fishing gear distribution, or polluting activities) <p>Level 2: Coastal environment-friendly enterprises successful and expanding</p> <ul style="list-style-type: none"> Livelihood and enterprise development programs employing fisherfolk/coastal communities in non-fishing livelihoods or low-impact mariculture that promotes conservation and sustainable use of coastal resources <p>Level 3: Coastal environment-friendly enterprises providing measurable socioeconomic and biophysical benefits</p> <ul style="list-style-type: none"> Livelihood and enterprise development programs resulting in measurable socioeconomic benefits to fisherfolk/coastal communities and biophysical improvements in the condition of coastal resources
<p>Local legislation <i>Local legislation, in the form of ordinances provide the local executive branch with necessary mandate, powers and functions to properly manage the coastal habitats and fisheries. Local legislation, together with national laws, provides the legal basis for regulations and protecting coastal resource use and enabling coastal law enforcement.</i></p>	<p>Level 1: Local legislation reviewed</p> <ul style="list-style-type: none"> Local CRM-related legislation reviewed and revised consistent with national policies and laws Local ordinances proposed or drafted in support of multi-year CRM plan and specific regulatory and management measures Public hearings and community consultations conducted <p>Level 2: Local legislation enacted and implemented supportive of CRM plan</p> <ul style="list-style-type: none"> CRM-related local legislation enacted supporting CRM plan and regulatory and management measures Information campaign on local and national legislation conducted <p>Level 3: Local legislation promoting the common good</p> <ul style="list-style-type: none"> Legislation achieving its specified objectives Widespread knowledge of and compliance with local legislation among stakeholders Local legislation reviewed and revised as necessary to improve effectiveness and relevance
<p>Coastal law enforcement <i>CRM cannot succeed without effective coastal law enforcement. Coastal law enforcement units at the municipal/city level must be formed and functional to promote voluntary compliance with and apprehend violators of national and local laws and regulations. Municipalities/ cities have the primary mandate for enforcement of fisheries and other</i></p>	<p>Level 1: Coastal law enforcement units formed and trained</p> <ul style="list-style-type: none"> Coastal law enforcement units formed and trained composed of Philippine National Police (PNP) with assistance from Bantay Dagat and deputized fish wardens <p>Level 2: Coastal law enforcement units operational</p> <ul style="list-style-type: none"> Operations plan developed and budget allocated for efficient conduct of coastal law enforcement Coastal law enforcement units equipped and conducting land-based and sea-based operations Apprehensions, cases filed, and convictions related to violations of



Benchmark and Rationale	Benchmark Description
<p>CRM-related laws within their territories.</p>	<p>coastal laws recorded</p> <ul style="list-style-type: none"> Coastal law enforcement sustained for at least 2 years <p>Level 3: Coastal law enforcement units effective</p> <ul style="list-style-type: none"> Illegal activities in coastal areas and municipal waters minimized or stopped Regular training of coastal law enforcement units and monitoring of coastal law enforcement activities Effective coordination mechanism established with other agencies with coastal law enforcement mandates Coastal law enforcement sustained for at least 5 years
<p>Revenue generation</p> <p><i>Municipalities/cities are responsible for generating revenue to support the continued implementation of CRM plans and programs. Revenues can be generated internally and externally through taxes, fines, fees for coastal resource use, grants and donations, loans and other credit-financing schemes.</i></p>	<p>Level 1: Revenue-generating strategies for coastal resource uses developed and initiated</p> <ul style="list-style-type: none"> User fees and other revenue-generating mechanisms identified through <i>barangay</i> consultations and public hearings for various coastal resource uses and investments based on CRM plan and coastal zoning Revenue allocation to CRM and community projects identified <p>Level 2: Revenue-generating strategies for coastal resource uses finalized and adopted through public hearings</p> <ul style="list-style-type: none"> Revenue-generating mechanisms finalized and adopted through public hearings as a municipal ordinance or other means Revenue collection system established and implemented <p>Level 3: Revenue-generating strategies supporting CRM plans and programs</p> <ul style="list-style-type: none"> Revenue-generating mechanisms supporting CRM and community projects and programs
<p>Multi-institutional collaboration for CRM</p> <p><i>Although municipalities and cities are primarily responsible for CRM, they need to coordinate with other LGUs, NGAs, NGOs, academe and other institutions involved in CRM. Through multi-institutional collaboration, municipalities and cities can tap technical and financial assistance from assisting organizations and plan and implement effective CRM activities.</i></p>	<p>Level 1: Multi-institutional collaboration planned and initiated</p> <ul style="list-style-type: none"> Potential collaborators from LGUs, NGAs, NGOs, academe, private sector, and funding institutions identified MOAs drafted defining inter-LGU collaboration in coastal law enforcement or other CRM-related activities, institutional roles and responsibilities and modes of collaboration and resource-sharing to provide technical and financial assistance, including training; monitoring and evaluation; livelihood; skills development; information, education, and communication support; and other forms of assistance <p>Level 2: Multi-institutional arrangements for collaboration formalized and strengthened</p> <ul style="list-style-type: none"> MOAs or other instruments adopted by municipal resolution or signed by collaborators Collaborative activities implemented <p>Level 3: Multi-institutional collaboration effective</p> <ul style="list-style-type: none"> CRM-related activities jointly implemented with measured success Resource sharing mechanisms effective Terms and conditions specified in MOAs or other instruments reviewed and revised as necessary



IEC: information, education, and communication
LGUs: local government units
MAO: Municipal Agriculture Office
M/CFARMC: Municipal/City Fisheries and Aquatic Resource Management Council
M&E: monitoring and evaluation
MOA: memorandum of agreement
MPAs: marine protected areas
NAMRIA: National Mapping Resource Information Authority
NGAs: national government agencies
NGOs: nongovernment organizations
POs: people's organizations
TWGs: Technical Working Groups

