

COMPLETION REPORT

THE COASTAL RESOURCE MANAGEMENT  
PROJECT-PHILIPPINES  
1996-2004



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## Abbreviations and Acronyms

ADB	Asian Development Bank
AFMA	Agriculture and Fisheries Modernization Act
ATI	Agricultural Training Institute
BEMO	Bohol Environmental Management Office
BFAR	Bureau of Fisheries and Aquatic Resources
BFARMC	<i>Barangay</i> -level Fisheries and Aquatic Resource Management Council
CABCOM-MOA	Cabinet Committee on Marine and Ocean Affairs
CAO	City Agriculture Office
CB/CRM	community-based coastal resource management
CBFMA	community-based forest management agreement
CBRMP	Community-Based Resource Management Project
CCEF	Coastal Conservation and Education Foundation, Inc.
CEP	Coastal Environment Program
CLEAR7	Coastal Law Enforcement Alliance for Region 7
CLEC	Coastal Law Enforcement Councils
CLUP	comprehensive land use plan
CMMD	Coastal and Marine Management Division
CMMO	Coastal and Marine Management Office
CMMS	Coastal and Marine Management Service
CO	community organizer/ing
CRM	coastal resource management
CRMFP	Community Resource Management Framework Plan
CRMP	Coastal Resource Management Project
DA	Department of Agriculture
DAO 2001-17	DENR Administrative Order 2001-17
DAO	Department Administrative Order
DBM	Department of Budget Management
DENR	Department of Environment and Natural Resources
DILG	Department of the Interior and Local Government
DoF	Department of Finance
DOJ	Department of Justice
DOT	Department of Tourism
DOTC	Department of Transportation and Communication
DSC	development support communication
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ENRAP	Environmental and Natural Resources Accounting Program
ENRO	Environment and Natural Resources Office
FARMC	Fisheries and Aquatic Resource Management Council
FLA	fishpond lease agreement
FRMP	Fisheries Resource Management Project
GEM	Growth with Equity in Mindanao
GESAMP	Group of Experts on the Scientific Aspects of Marine Environmental Protection
GOLD	Governance and Local Democracy

GOP	Government of the Philippines
GPA	Global Plan of Action
GreenCom	GreenCom Project in the Philippines
GSP	Girl Scouts of the Philippines
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
ICM	integrated coastal management
ICRMP	Integrated Coastal Resource Management Project
IEC	information, education and communication
IEMP	Industrial Environmental Management Project
IR	intermediate result
ITMEMS2	Second International Tropical Marine Ecosystems Management Symposium
IYO	International Year of the Ocean
JAO	Joint Administrative Order
JMO	Joint Memorandum Order
LCP	League of Cities of the Philippines
LEAP	Legal Environmental Advocacy Program
LGC	Local Government Code of 1991
LGU	local government unit
LMB	Land Management Bureau
LMP	League of Municipalities of the Philippines
M&E	monitoring and evaluation
M/CPDO	Municipal/City Planning and Development Office
MAO	Municipal Agriculture Office
MCD	municipal coastal database
MENRO	Municipal Environment and Natural Resources Office
MFARMC	Municipal Fisheries and Aquatic Resource Management Council
MOU	Memorandum of Understanding
MPA	marine protected area
MTPDP	Medium-Term Philippine Development Plan
NAMRIA	National Mapping Resource and Information Authority
NCRMP	National Coastal Resource Management Policy
NEDA	National Economic and Development Authority
NFRDI	National Fisheries Research and Development Institute
NGA	national government agency
NGO	non-governmental organization
NIPAS	National Integrated Protected Areas System
NRMP	National Resources Management Program
OBST	Olango Birds and Seascape Tour
OIWS	Olango Island Wildlife Sanctuary
PANIF-TF	Provincial Anti-Illegal Fishing Task Force
PAWB	Protected Area and Wildlife Bureau
PCAMRD	Philippine Council for Aquatic and Marine Research and Development
PCG	Philippine Coast Guard
PCRA	participatory coastal resource assessment
PDC	Provincial Development Council
PEDO	Police Environment Desk Officer
PIA	Philippine Information Agency
PLUC	Provincial Land Use Committee

PNP	Philippine National Police
PNP-MG	Philippine National Police-Maritime Group
PO	people's organization
PPA	programs, projects and activities
PPAG	Programs and Policy Advocacy Group
PPFP	Provincial Physical Framework Plan
PRSP	Public Relations Society of the Philippines
QA	quality assessment
QC	quality control
SB	Sangguniang Bayan
SMICZMP	Southern Mindanao Integrated Coastal Zone Management Project
SOW	Statement of Work
SWS	Social Weather Station
TWG	Technical Working Group
UNDP	United Nations Development Programme
UP-MSI	University of the Philippines-Marine Science Institute
USAID	United States Agency for International Development
UWM	unit of work measurements



## Preface

The nine-year (1996-2004) Coastal Resource Management Project-Philippines (CRMP) provided technical assistance and training to coastal communities, local government units (LGUs), non-governmental organizations (NGOs), and national government agencies (NGAs) to promote improved management of coastal resources in the Philippines. It was funded by the United States Agency for International Development (USAID) and implemented by the Department of Environment and Natural Resources (DENR) in partnership with the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR), Department of the Interior and Local Government (DILG), Department of Tourism (DOT), other NGAs, LGUs, NGOs, and people's organizations (POs).

Based on the original Project design, CRMP, which began in 1996, would end in September 2002. It was given a two-year extension aimed at building on the tremendous gains achieved during its original seven-year term in developing a critical mass of support for coastal resource management among Philippine NGAs, LGUs and coastal communities. This completion report chronicles the evolution of Project activities, providing highlights of key challenges, successes and lessons learned over nine years of life-of-Project (1996-2004), and recommendations for future directions of coastal resource management (CRM) in the Philippines.

Management and technical support during CRMP's first five years of implementation was provided by Tetra Tech EM, Inc. and its team firms – American Institute for Research (AIR); Coastal Ocean, Reef and Island Advisors Ltd. (CORIAL); Economic Development Foundation (EDF); Global Vision, Inc. (Glovis); Helber, Hastert and Fee Planners; Mote Environmental Services, Inc. (MESI); Pacific Management Resources, Inc. (PACMAR); Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX); Plan Pacific; and Woodward-Clyde, Philippines (WWC). From 2000, Tetra Tech EM, Inc. assumed sole management of all Project components with assistance from PRIMEX through 2003.

NGO and academic partners included the Asian Institute of Journalism and Communication, Inc. (AIJC); Coastal Conservation and Education Foundation (CCEF); Davao Oriental State College of Science and Technology; Environmental Legal Assistance Center (ELAC); First Consolidated Bank Foundation, Inc. (FCBFI); Foundation for Sustainable Society, Inc. (FSSI); Geoplan Cebu Foundation, Inc.

(GEOPLAN); Haribon Foundation, Inc.; Institute for Small Farms and Industries, Inc. (ISFI); International Marinelife Alliance (IMA); Kabang Kalikasan ng Pilipinas-World Wildlife Fund-Philippines (KKP-WWF); League of Municipalities of the Philippines (LMP); Mindanao State University (MSU)-General Santos City; Philippine Center for Marine Affairs (PHILMAR); Rtn. Martin “Ting” Matiao Foundation, Inc. (TMF); Silliman University Center of Excellence in Coastal Resource Management (SU-COE-CRM); Trends-MBL, Inc.; University of San Carlos (USC); University of the Philippines in the Visayas Foundation, Inc. (UPVFI); University of the Philippines-Marine Science Institute (UP-MSI); US Peace Corps; and Visayas Central Fund (VICTO-VCF).

When the CRMP was launched in 1996, the need for technical assistance in CRM was painfully clear. There was no question about the alarming decline of the Philippines’ once rich nearshore fisheries and habitats, or about the need to manage our coastal resources. What was not clear in many people’s minds was how to go about establishing the management systems that would reverse the decline. Even LGUs, who by virtue of the Local Government Code of 1991 were mandated to manage municipal waters, were not clear on their role in CRM. Most continued to assign the primary management responsibility to the national government, or viewed CRM as an optional activity.

CRMP was designed to develop strategic and innovative approaches to address new paradigms in CRM in the Philippines while building on previously tested approaches, particularly those that were community-based. The key objective: Expand CRM from pilot-scale community-based projects to a strategic spread that cut across a broad range of coastal stakeholders. Its focus: Municipal waters, the fisherfolk who used these resources, and the local governments that held administrative control over them (USAID, 1995). While the original Project design spelled out a seven-year (1996-2002) implementation strategy that focused on community-based CRM (CB/CRM), building local government capacity in CRM, training, resource monitoring, policy development, alternative enterprise development, and information and education, it also enjoined the project implementers to “respond creatively and effectively to the requirements of [the] Project, as well as to the evolving needs of the sector” (USAID, 1995).

CRMP’s plan of action consisted of five primary thrusts: Increase the LGUs’ awareness of their mandate; Promote a shift in their perspective so they would begin to view the coastal crisis, not as a condition that they could do nothing about, but as a problem requiring and *having* a solution; Increase their capacity to solve the problem through training, education and information communication; Integrate CRM into their framework of governance, so that it would become an essential part of their day-to-day development and policy functions; Establish a higher-order mechanism at the national and regional levels, through a national or regional incentive system and policy reform, to

encourage and enhance local level management initiatives; Create the necessary linkages to bring together the multitude of players and stakeholders into a single, seamless system of management geared toward maximizing the sustainability of coastal resources.

An inclusive approach was critical. CRM is affected by a complex network of issues, many of which are outside the jurisdiction of CRMP's immediate partners – the LGUs and the DENR. This meant that the Project had to play the role of a “broker”, encouraging various sectors with disparate interests to openly discuss their concerns and find points of convergence that would allow them to work together toward CRM. It meant that CRMP had to carefully frame the CRM agenda so that it met, as closely as possible, the development and policy objectives of the LGUs the Project was working with. It meant pushing pressure points in aid of advocacy.

CRMP learned that there was no single way to deliver technical assistance to LGUs that would apply in all cases to all areas. The Project team realized the value of being highly flexible and opportunistic. Project staff consciously honed their reflexes to respond to challenges and opportunities that materialized, often without warning. Guided by CRMP's mission “to catalyze CRM in the Philippines to a threshold that will expand nationwide and be sustainable beyond the life of the Project,” the CRMP team made sure that all partners were *with the project*, and *in the process*. CRMP's strategic objective: 3,000 kilometers of coastline under improved management by 2002. In 2002, CRMP was extended by two years and this strategic objective was revised to 3,500 km by 2004.

This Completion Report describes the achievements and lessons generated by CRMP from 1996 to 2004, and measures these against the results expected by the “clients”: donors, LGUs and NGAs alike. It also examines the many tasks that still face the government and civil society at both the national and local levels, and what it will take to bring CRM in the Philippines to full maturity.

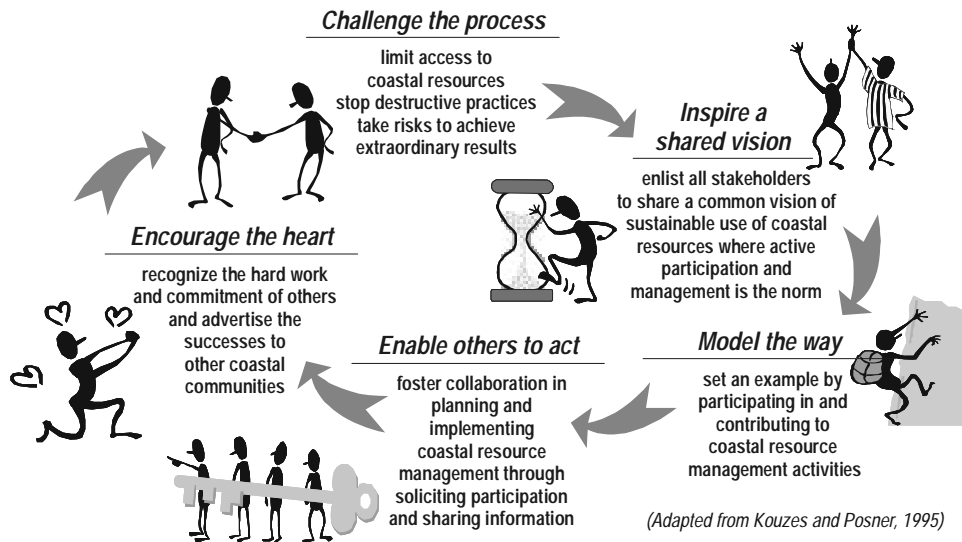
CRMP takes this opportunity to salute all those in government, the private sector and the other sectors of society that the Project had the privilege to work with for their continued commitment to deepen and broaden the institutionalization of CRM in the bureaucracy and achieve the full potential of CRM best practices to improve the economic and social well-being of coastal communities. The process catalyzed by CRMP is in a critical phase; there remains a need to set in place and strengthen the organizational systems and structures that will ensure continued resources, technical assistance and services required to sustain the CRM programs that are already existing at the local level.

Although the challenge today is as big as or bigger than when CRMP started, it appears less daunting. The long uphill journey of CRMP that encountered many unexpected ruts and bends took the Project to a rewarding end. Today, kilometers ahead of the starting point in 1996, the Project and its partners have learned many lessons, fully realizing that despite the significant gains of CRMP, the challenge ahead remains huge, and the lessons still to be learned complex. Yet, our confidence in the future stems from a better understanding of the problem, and the stronger capacity of all—government, organizations, communities and individuals— to work both individually and collectively to solve it.



# PROJECT HIGHLIGHTS

## The Coastal Resource Leadership Challenge



- 370 local government, national government, and NGO partners prepare vision statements, action plans, and commitments for coastal resource management (CRM) for all Learning Area provinces and municipalities through the Coastal Resource Leadership Challenge developed in collaboration with the USAID-funded Governance and Local Democracy Project

- Co-produced with the GreenCOM Project and the Philippines' Technology and Livelihood Center (TLRC) a 10-episode television series on CRM which aired over commercial television serves as educational support to CRM training programs

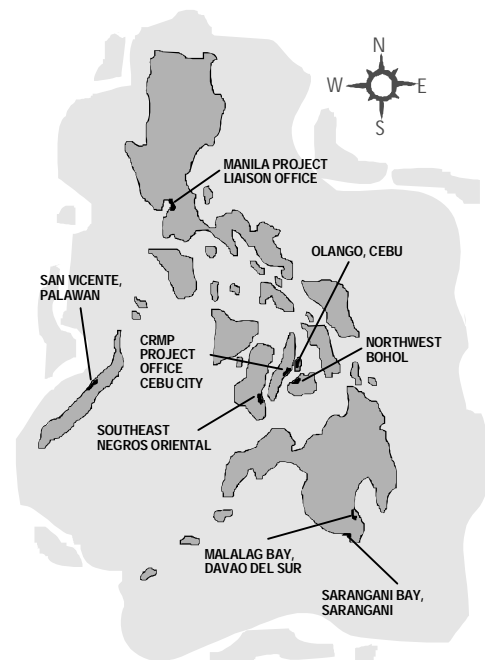
- Strategies for local CRM implementation formulated

- Courtesy calls and orientation with national government agencies, local government executives, non-governmental organizations, and other assisting organizations to introduce the Project and identify key CRM issues and concerns



- Field operations established in six Learning Areas covering 29 municipalities/cities in 6 provinces and 3 regions of the Philippines

*International Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) identifies urgent need to develop common framework for evaluating coastal management initiatives*



CRMP Learning Areas

# 1996

- CRMP Internship Program recruits 10 undergraduate and graduate student interns for field practice in coastal management



- First Edition of *Tambuli*, A Publication for Coastal Management Practitioners published and distributed

- Training courses in Participatory Coastal Resource Assessment, Integrated Coastal Management, and Coastal Resource Leadership Challenge developed and conducted



- Coastal area profiles under development in each Learning Area

- Over 1,000 fisherfolk from 200 coastal barangays in 29 municipalities and cities participate in CRM orientation and training, activities in participatory resource assessment, and community organizations

- 23 local government, national government, and NGO partners trained in intensive 10-day Integrated Coastal Management Training Course

- 12 out of 29 Learning Area municipalities enact ordinances limiting access to coastal resources

- Coastal environment-friendly and market-driven enterprise options analyzed for Learning Areas at Olango, Malalag, and Sarangani

- Indicators for CRM developed through multisectoral workshops

- 35 local government units sign memorandums of agreement committing resources and budget to CRM

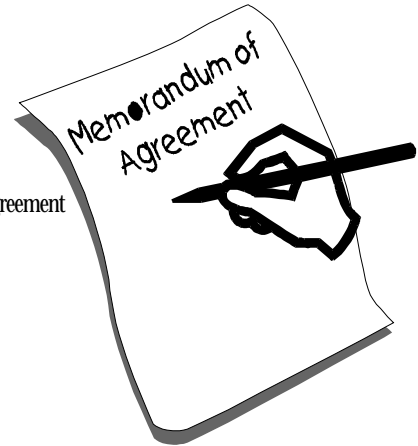
- Average annual CRM budget allocated by CRMP Learning Area municipalities increases to Php 92,485 from the 1995 pre-project baseline of Php 37,023

***International Year of the Reef***

- Partnership with League of Municipalities of the Philippines initiated

- Consultative workshops in all Learning Areas conducted for review of *Legal and Jurisdictional Guidebook for CRM in the Philippines*

- Expansion memorandums of agreement signed with 13 municipalities



- Mangrove strategy developed and initiated in Bohol

- Standardized marine sanctuary monitoring and training protocols established with University of the Philippines Marine Science Institute and applied to CRMP Learning Area marine sanctuary

- Enterprise development plans formulated for short-listed communities, e.g., seaweed, ecotour, marine aquarium fish, oysters, mud crab

- Barangay Fisheries and Aquatic Management Councils established or strengthened throughout all Learning Area municipalities

- Marine sanctuaries initiated in all Learning Area municipalities



- CRM television series wins the GAWAD Florendo Award of the Public Relations Organization of the Philippines as best educational tool in the video/television category

- Olango Birds and Seascape Tour developed with Sabang Women's Organization and pre-tested for commercial run

**1997**



■ *Legal and Jurisdictional Guidebook for CRM in the Philippines* developed to clarify existing national legal framework to catalyze local implementation, endorsed by the Secretaries of DENR, DA, and DILG, and launched along with the 1998 Search for Best CRM Programs by President Fidel V. Ramos at the National Convention of the League of Municipalities of the Philippines



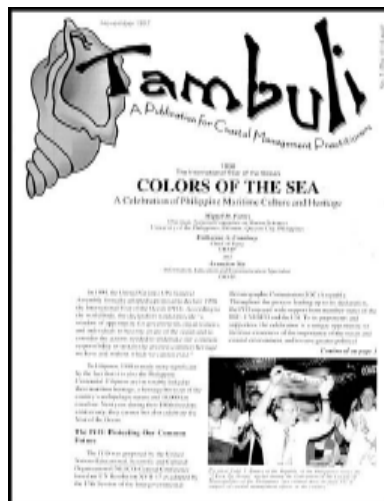
*Agriculture and Fisheries Modernization Act (RA 8435) passed by Congress to address national food security programs*

■ Sardine processing enterprise established by Panindigan Women's Association in San Vicente, Palawan

■ CRMP designated by UNESCO-National Committee on Marine Sciences as official implementing arm for the 1998 International Year of the Ocean



■ Second and Third Editions of *Tambuli*, A Publication for Coastal Management Practitioners published and distributed



■ Community seaweed farming and new net bag technology initiated in Gilutongan (Olango Learning Area); partnerships on seaweed enterprise support with development institution formalized under the Seaweed Consultative Forum

■ CRM technical assistance initiated along 1,000 km of shoreline

- “Our Seas, Our Life” traveling exhibit mounted, covering 6 destinations from Manila to Mindanao, generating an attendance of over 1.3 million people, and highlighting to the general public, for the first time, the degraded condition of Philippine seas, solutions, and need for action



***Philippine Fisheries Code (RA 8550) passed by Congress establishes CRM as the National Legal Framework***

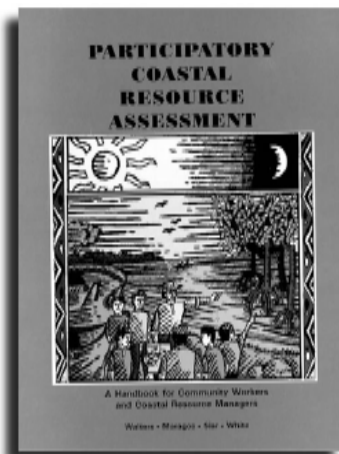
- Olango ecotour adopted by DOT National and Region 7 offices for promotion and technical assistance

- “I Love the Ocean Movement” is born and grows to 11,000 members with 5 chapters nationwide sustaining advocacy and action for sustainable seas



- Legal Arsenal for Coastal Resource Management Workshop organized and conducted in partnership with the Philippine Supreme Court and attended by senior-level practitioners, law enforcement officials, and members of the judiciary

***International Year of the Ocean***



- *Manual on Participatory Coastal Resource Assessment* published and distributed for nationwide use

- Blue Tapestry community arts project conducted in partnership with Levi Strauss Philippines Inc. officially endorsed by the Girl Scouts of the Philippines for Family Camp Program



- Award-winning CRM radio drama series “Kapitan Barongoy” produced and aired to highlight CRM problems and solutions



***Presidential Proclamation No. 57 signed by President Estrada declares every May as Month of the Ocean in the Philippines***

- Seaweed Growers Cooperative organized and buying stations established at Gilutongan with support from Alternative Commodities Exchange (ACES), and Visayas Central Fund (VICTO-VCF) and Foundation for Sustainable Society Inc. (FSSI)

***El Niño conditions result in record drought conditions in the Philippines***

- Low-impact mariculture enterprise (oyster, mudcrab, bangus) initiated in 3 communities in Bohol, mudcrab facilities in Bais Bay, and seaweed farms in Siaton, Negros Oriental

- Introductory commercial runs of the Olango Birds and Seascape Tour established in Cebu and Manila



- Participatory Coastal Resource Assessment conducted in 29 learning area municipalities

- Study tours on seaweed and ecotour enterprise development by communities in full swing at Olango and Gilutungan islands catering to LGUs, NGAs, students, teachers, NGOs, diplomats, international development agencies

***Infestations of crown-of-thorns starfish reported in 26 Indo-Pacific countries***

- CRM website at <http://www.oneocean.org> launched as International Year of the Ocean information center with on-line magazine, discussion board, CRM Hotline, and children’s page

**1998**

- ICM Training Courses conducted in Cebu, Palawan, and General Santos, adding to the expanding pool of trained practitioners from NGAs, LGUs, and NGOs



***National election resulted in a new president, change of national government agency staff, and approximately 60 percent turnover of LGU officials in Learning Area municipalities and provinces***

- *Colors of the Sea*, a six-part TV series of the public education program “*Sine’skwela*” produced and aired nationwide in partnership with ABS-CBN Foundation

- International Coastal Cleanup Day organized by IMA in the Philippines, drawing 300,000 people to clean beaches

***49 nations report at the International Coral Reef Initiative held in Townsville, Australia, that little change in the endangered status of coral reef ecosystems has occurred since the global Call to Action in 1995***

- Municipal Fisheries and Aquatic Management Councils established throughout all Learning Area municipalities as CRM policy formulation, planning, and consultative body in partnership with DA-BFAR



- Multiple coastal enterprises installed and integrated into river and mangrove management at Cambuhat, Buenavista, Bohol. These are Cambuhat river and village tour; oyster culture and handicrafts manufacturing

- CRM orientation conducted for newly-elected local government executives

- Revised Results Framework and Indicators for CRMP reviewed, finalized and approved by the Government of the Philippines and USAID after extensive consultative process

- 2-year extension of CRMP recommended by USAID Mid-Term Evaluation Team based on high performance record

- Criteria for improved management of coastal resources met in 170 km of shoreline composed of 7 municipalities

- Marine sanctuary training and monitoring conducted in selected Learning Areas in partnership with UP-MSI, DENR, DA-BFAR, and academe

***Record highs in tropical sea surface temperatures result in severe to catastrophic coral bleaching in 40-50% of the world’s reefs and about 20% in the Philippines***

- Average annual CRM budget allocated by CRMP Learning Area municipalities increases to Php101,395 or 174% over 1995 pre-project baseline

- Annual Strategic Review and Planning workshop conducted with institutional partners

- Six municipalities (Malalag, Davao del Sur; Pres. Garcia, Bohol; Prieto Diaz, Sorsogon; Calabanga, Camarines Sur; Pasacao, Camarines Sur) awarded Best CRM Programs for 1998 at League of Municipalities National Convention

- Construction of Silliman University Marine Laboratory building completed



■ The Anvil Award of Merit, considered the “Oscars” of Public Relations in the Philippines, given to DENR and CRMP “for [their] sustained and unique year-long package of special events and public education activities that helped increase awareness, understanding, and appreciation of the maritime heritage and rich but delicate ecosystems that are the lifeblood of millions of Filipinos”



■ State of the Ocean Address “Saving the Philippine Seas” delivered by President Joseph Ejercito Estrada before a live audience of over 700 mayors, mass media and diplomatic corps and carried by nationwide radio through the Philippine Information Agency



■ Policy Study and Draft Joint Administrative Order prepared in response to Implementing Rules and Regulations of the Fisheries Code defining the jurisdictional responsibilities of DENR and DA-BFAR

***La Niña conditions result in record floods***

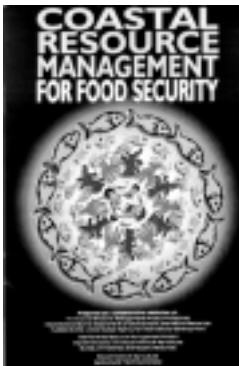
■ First Conference of Coastal Municipalities of the Philippines conducted. The Conference is attended by more than 700 coastal mayors, with President Estrada, the Chief Justice of the Supreme Court, and other high-ranking national government officials as guests

■ Municipal Coastal Database software packaged in CD-ROM for beta testing



**CONFERENCE OF COASTAL MUNICIPALITIES OF THE PHILIPPINES**

Empowering Municipal LGUs for Integrated Coastal Management

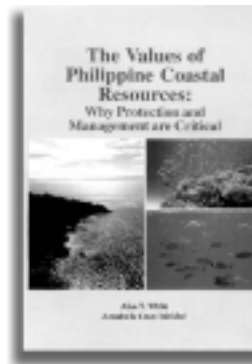


■ *CRM for Food Security* booklet developed in collaboration with DA-BFAR and DA-ATI in response to the AFMA and distributed at the First National Food Security Convention as the strategy for achieving food security from the sea

■ Ocean Ambassadors webpage at <http://www.oneocean.org> featuring the satellite telemetry project for sea turtles in the Turtle Islands launched in partnership with DENR, WWF and Smithsonian Institution



■ The *Values of Philippine Coastal Resources*, a book describing national and local benefits derived from coastal resources, prepared, published, and distributed to highlight the need to invest in CRM to sustain economic benefits



■ Provincial expansion mechanisms formalized for Bohol and Davao del Sur through signing of Memorandum of Agreement between the provincial government, DENR, DA-BFAR, and CRMP

■ ICM Training Courses conducted for MFARMCs in partnership with DA-BFAR and RFTCs

***Nationwide shortage of seaweed for carrageenan production arises due to disease***

■ CRM planning activities initiated in Learning Area municipalities and cities

■ Adoption of ICM Training Courses by academic institutions, government training centers, and NGOs

■ Port Barton Marine Park established in Port Barton, San Vicente, Palawan

**1999**

■ CRM is institutionalized with the Leagues of Municipalities, Provinces and Cities

■ Integration of CRMP/CEP activities at the national and field level begins



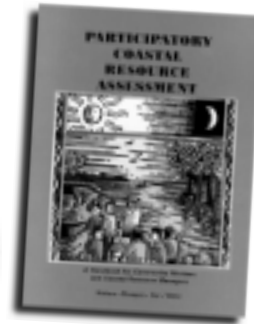
■ MOU signed between CRMP and FRMP establishing close coordination between the two largest CRM projects in the Philippines

■ DENR and BFAR (through FRMP) adopt the PCRA guidebook, training modules and methodology; FRMP begins implementing PCRA in 18 bays



■ Collaborative arrangement made between CRMP and the USAID-funded Governance and Local Democracy (GOLD) for joint activities in GOLD sites in Negros Oriental and Bohol.

■ Policy study and standard procedures for delineating municipal water boundaries completed in partnership with NAMRIA and FRMP



■ First "Celebrity Dive" organized to drum up support for reef conservation. Jim Paredes leads celebrity team composed of Redford White, Jeffrey Santos, Chiqui Pineda and Tina Asuncion



■ Design and development of Municipal Coastal Database (MCD) software completed. CEP, FRMP, Bohol and various LGUs begin to apply MCD as a planning, diagnostic and monitoring tool.

■ Draft Joint Memorandum Order (JMO) clarifying the roles and responsibilities of DENR and DA in the implementation of the RA 8550 (Fisheries Code of 1998) completed for review and approval by DENR and BFAR

■ Joint production efforts with national and local mass media group yield more than \$400,000 in leveraged media production

■ Provincial expansion mechanisms formalized for Learning Area provinces through signing of MOA between the provincial government, DENR, DA-BFAR and CRMP

■ Philippine National Medium-Term Development Plan highlights the role of the local government in improving coastal management in the country, targeting "integrated coastal management adopted by 250 LGUs covering 6,000 km of shoreline for the improved management of municipal waters by the year 2004"



■ 2nd Search for Best CRM Programs launched

■ ICM Trainors Pool established in all Learning Area provinces to promote expansion activities

■ Orientation activities begin in Special Expansion Areas

■ Mangrove Management Toolkit reviewed and adopted by DENR for publication and distribution

■ CRMP web site at <http://www.oneocean.org> named 1998 Most Outstanding Environmental Web Site by the Philippine Web Awards

■ 741 km of shoreline meet criteria for improved management of coastal resources, exceeding the 1999 target of 640 km







■ “Mangroves for the Millennium” Project launched as a community mobilization and public education activity for learning and expansion areas

■ 6,500-ha Port Barton Marine Park established



■ 2nd Search for Best CRM Programs picks 6 winners: Altavas, Aklan; Calape, Bohol; LIPASECU, Antique; and Sibulan, Negros Oriental under the Externally-Assisted Category; and Claveria, Cagayan and Palompon, Leyte under the Not Externally-Assisted Category

■ The Province of Masbate, with CRMP assistance, formulates and adopts the Masbate Provincial Environment Code, the second province after Bohol to codify national laws and local ordinances related to the environment

■ CRMP technical assistance shifted from municipal LGUs to coastal provinces to capacitate provinces as technical assistance providers to municipalities and cities in CRM. Technical assistance begins in special expansion areas, which include Batangas, Davao del Norte, Leyte, Masbate, Romblon, Sultan Kudarat, Surigao del Norte and Surigao del Sur

■ <http://www.oneocean.org> wins 1999 Anvil Award of Excellence-PR Tool, Electronic and Interactive Media-Web Pages Category



■ Olango Bird and Seascape Tour wins 1999 Anvil Award of Merit-PR Program Directed at Specific Stakeholder-Community



■ Coastal Environmental Profiles of the Malagal Bay Area, Davao del Sur, and Northwestern Bohol, Philippines published

■ 1,410 km of shoreline meet criteria for improved management of coastal resources, exceeding the 2000 target of 1,200 km



2000

***DENR and DA adopt JMO  
2000-01 clarifying the roles and  
responsibilities of the two agencies  
in the implementation of RA  
8550 (Fisheries Code of 1998).***



- Olango Birds and Seascape Tour (OBST) conferred "Highly Commended Status" by Conservation International

- *Mangrove Management Handbook* published



- Quantitative research undertaken in CRMP learning areas by an independent research company. Trends-MBL, Inc., indicates high level of awareness and knowledge among fishing communities about current conditions, problems and solutions affecting coastal resources

- Trends-MBL nationwide survey of 700 fisherfolks conducted to determine knowledge, attitudes, practices of fisherfolk regarding CRM

- Generated commitments from 17 municipalities in southern Cebu and 1 northern municipality to serve as CRMP expansion areas; clusters of municipalities organized



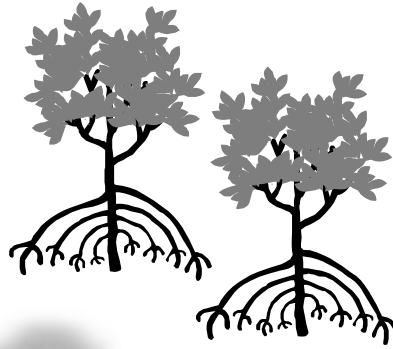
- Coastal Law Enforcement Alliance for Region 7 (CLEAR7) organized with the assistance of the US Coast Guard. CLEAR7 is a coalition of national government, local government, and non-governmental organizations committed to improving coastal law enforcement in Region 7.

- 8-volume *Philippine Coastal Management Guidebook Series* completed and adopted by DENR and DA-BFAR



- Organization of Cebu CRM Partners comprised of national agencies and NGOs to provide technical assistance to CRMP expansion municipalities

■ Provincial delivery of CRM as a basic service strengthened in eight provinces -- Bohol, Cebu, Negros Oriental, Palawan, Davao del Sur, Davao Oriental, Sarangani, and Masbate



■ Mangrove management component completes its term, after successfully facilitating the processing and awarding of Community-Based Forest Management Agreements to 9 people's organizations, benefiting 620 member households and covering 3,414 ha of mangrove area in Bohol



■ Olango Birds and Seascape Tour wins British Airways 2000 Tourism for Tomorrow Award for Best Environmental Experience

■ Olango Birds and Seascape Tour turned over to community and local government



■ *Sarangani Bay Integrated Coastal Management Plan* completed and approved by the Protected Area Management Board

***DENR Administrative Order No. 17-2001 issued prescribing the guidelines for the delineation of municipal waters in the Philippines. CRMP assists NAMRIA by facilitating delineation activities in its Learning and Expansion Areas***



■ Technical support for Cambuhat (Bohol) oyster culture enterprise completed



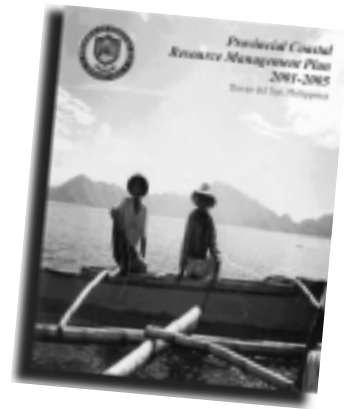
■ 8-volume *Philippine Coastal Management Guidebook Series* published and formally launched at the League of Municipalities of the Philippines convention in Manila

■ 3,056 km of shoreline meet criteria for improved management of coastal resources, exceeding the 2001 target of 2,100 km and the 2002 target of 3,000 km

**2001**



■ Bohol creates a Coastal Law Enforcement Council for each of its three congressional districts



■ Davao del Sur, with CRMP assistance, creates the Provincial Anti-Illegal Fishing Task Force, and adopts a Provincial CRM Plan (2001-2005), the first provincial CRM plan in the Philippines



■ Last print run of *Tambuli* completed with the publication of the 7th issue of the newsletter

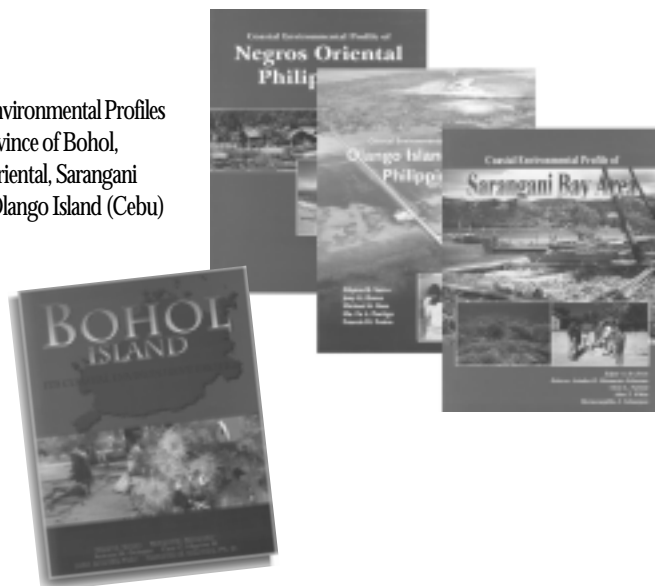
■ Completion of PCRA's in Cebu's 18 expansion municipalities totaling 153 coastal barangays

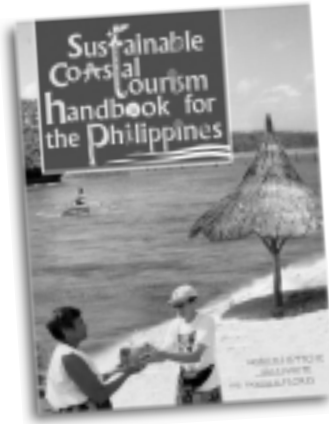
■ User-fee system for Gilutongan Island Marine Sanctuary (Olango Island, Cebu) operationalized, contributing to the LGU Php900,000 in revenues



■ *Coral Reef Monitoring for Management* published

■ Coastal Environmental Profiles of the Province of Bohol, Negros Oriental, Sarangani Bay, and Olango Island (Cebu) published





■ *Sustainable Coastal Tourism Handbook for the Philippines* adopted by DENR and DOT and published

■ CRMP's enterprise development component winds down, after successfully establishing a number of environment-friendly, community-based coastal enterprises in 23 LGUs

■ Airing worldwide of BBC Television's short feature on the marine sanctuary of BasDio, Guindulman, Bohol



■ "A Crowded Shoreline", a study on existing policies and use of the Philippines' foreshore areas, conducted



■ First Philippine Provincial Coastal Resource Management Festival showcases provincial initiatives in CRM. Sixteen provinces participate in the Festival



■ CRMP publications compiled in a CD volume

*Pio V. Corpus, Masbate adopts ordinance delineating and delimiting its municipal waters, becoming the first municipality in the Philippines to complete the municipal water delineation process under the guidelines set by DAO 2001-17*

■ With DENR's NRMP, conducted a series of public forums on CRMP's experiences and lessons



■ Hagonoy, Davao del Sur and Inabanga, Bohol become the first two municipalities in the Philippines to be certified as having achieved Level 1 benchmarks of performance in CRM



*Coastal and Marine Management Office (CMMO) formally established through the signing of DENR-DAO 2002-08, replacing the Coastal Environment Program (CEP) of DENR. CMMO institutionalizes the functions of CEP and CRMP in DENR in a major program that builds on CRMP approaches and results framework*

■ CRMP term extended to June 2004, with a revised target of 3,500 km of shoreline under improved management by the end of 2004

■ Local implementation expands to Davao Oriental and Compostela Valley

# 2002

■ Development of the Philippine Marine Capture Fisheries Profile begins

■ 3,187 km of shoreline meet criteria for improved management of coastal resources, exceeding the 2002 target of 3,000 km



■ *Monitoring and Evaluating Municipal/City Plans and Programs for Coastal Resource Management* completed and published

■ CMMO operationalized



■ *Directory of CRM Learning Destinations* completed and published

■ 250 CMMD and CMMS personnel trained in ICM in 15 regions

■ Initiated Fisheries Management Component

***DENR revokes DAO 2001-17 (Guidelines for the delineation and delimitation of municipal waters in the Philippines) in compliance with a Department of Justice opinion stating that DENR has no authority to issue the guidelines. CRMP shifts assistance to clarifying the issues related to municipal water delineation, and formulating a new set of guidelines to be issued by DA-BFAR***

■ CRM Showcase tours launched in Davao Province, Masbate, and Region 7, featuring CRM best practices and learning destinations. Tours promoted on nationwide TV through GMA-7 and Probe Productions



■ Exhibit panels on their respective CRM achievements produced and provided to the provinces and selected municipalities/communities of Bohol, Negros Oriental, Cebu, Davao Provinces and Masbate



■ The Philippines' first CRM Interpretive Center opens in Masbate City

■ *Sineskwela* and CRMP co-produce two episodes — *The Fisher and the Sea* and *Big Fish, Small Fish* — aired over ABS-CBN network

■ CRM Interpretive Guide Training developed and conducted for learning destinations/circuits of CRM showcase tours

■ CRMP exhibit "Local Government and Communities Moving Ahead in Coastal Resource Management" mounted



■ *Philippine Fisheries in Crisis: A Framework for Management* published



■ *In Turbulent Seas: The Status of Philippine Marine Fisheries* published

**2003**

**2004**



- 3,589 kms shoreline meet criteria for improved management of coastal resources



- Field assessment of local implementation of CRMP conducted



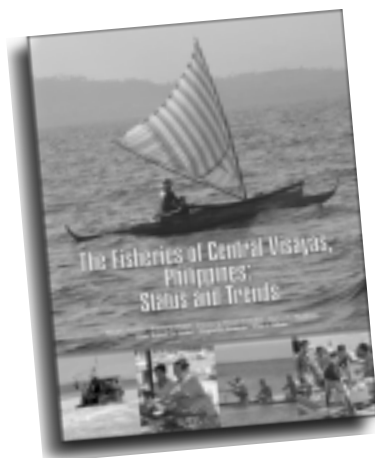
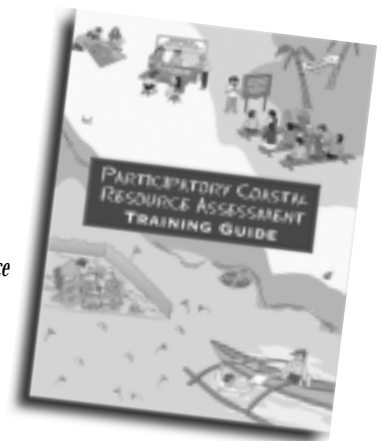
- 1st Coastal Zone Philippines National Conference held with support from CRMP

- 21 LGUs certified for achieving Level 1 benchmarks of performance in CRM; applications for certification of 10 LGUs reach regional level

*Series of workshops on the seven fisheries ecosystems of Central Visayas conducted to formulate framework plan for each ecosystem*

- Illana Bay and Sarangani Bay fisheries profiles completed

- *Participatory Coastal Resource Assessment Training Guide* published



- *The Fisheries of Central Visayas, Philippines: Status and Trends* published

- Launching of the Strengthening Local Legal Arsenal Program (SLLAP) with IBP Cebu for the 4 southwestern municipalities of Cebu



**2004**





## Chapter 1

# Project Objectives and Results Framework

*The contractor will develop the general life-of-project and annual work plans with measurable performance indicators in consultation with the Project Steering Committee... [and] establish, in conjunction with USAID and the Project Steering Committee, the minimum requirements for sustainable resource management. (USAID 1995)*

### Introduction and Rationale

The Coastal Resource Management Project (CRMP) came into the Philippine scene at a critical time, when coastal communities were under severe and increasing threat from the worsening effects of decades of overfishing, destructive fishing, rapid population growth, uncontrolled and haphazard shoreline development, and government programs that continued to encourage increased fisheries production despite a depleted resource base.

Most of the extensive shallow seas of the Philippines – once rich in fish, shellfish, and the habitats (coral reefs, seagrass beds and mangroves) that nurture them – were seriously depleted. Mangrove forests had dwindled to 120,000 hectares in 1995, from about 450,000 hectares in 1918 (DENR 1988 and White and Trinidad 1998). Extensive areas of the country's coral reefs had been decimated by dynamite, cyanide, and other destructive fishing practices, leaving less than 5% in excellent condition (Gomez *et. al.* 1994). Up to 50% of the seagrass habitats had been lost to heavy sedimentation and coastal development.

Meanwhile, the government continued to pursue coastal and marine development along the premise that fisheries production could be increased through the use of more efficient gear and technology, that the fisheries industry could keep operating within an open access regime, and that the sea could be harvested as if it was an infinite resource. When allocating resources, whether in terms of funding or personnel development, the government favored increased agro-fisheries production, and its food security programs rarely factored in fishery and aquatic resources (Courtney *et. al.* 1999). Resource use, without management, characterized its fisheries development programs, resulting in excessive fishing pressure, overfishing, stock depletion, and habitat destruction. Interventions and solutions generally were not comprehensive enough to cover the issues of poverty, food security, sustainability and ecological soundness.

The Bureau of Fisheries and Aquatic Resources (BFAR) noted in its 1995 policy brief on the allocation of fishing areas for the exclusive use of the municipal fisheries sector: “Philippine marine fisheries suffer from excessive fishing pressure, and resource competition is intense, particularly in the nearshore, traditional fishing grounds.” Fishing level in these areas was said to be 50-75% higher than the level necessary to harvest maximum sustainable yield (BFAR 1995).

Worse, public awareness of what was happening to the country’s marine and coastal resources was discouragingly low (Social Weather Station 1997). Advocacy activities for marine and coastal issues were confined to fisherfolk groups and a few conservation-oriented non-governmental organizations (NGOs). Marine and coastal issues were not a priority for the government’s lead agency for conservation, the Department of Environment and Natural Resources (DENR), whose primary focus and capabilities were forestry-based (CRMP 2000). Even the local government units (LGUs), who were closest to the realities in the coastal zone, appeared largely detached from CRM-related problems, preoccupied as they were with infrastructure, health, sanitation and economic problems (GreenCOM 1996).

The picture was not all grim, however. The Philippines has a long history in CRM that started in the early 1980s with the establishment of community-based marine protected areas (MPAs). When CRMP started in 1996, CRM applications in the country were evolving from the top-down legal mandates of the 1970s and 1980s to a shift to local government jurisdiction. At the same time, the most valuable lessons on CRM for this shift to local governments were from the participatory community-based projects of earlier years (Figure 1.1) (Ferrer *et. al.* 1996). There were thus many lessons that CRMP could use to develop its own approach to CRM and the specific strategies needed to achieve its Project objectives.

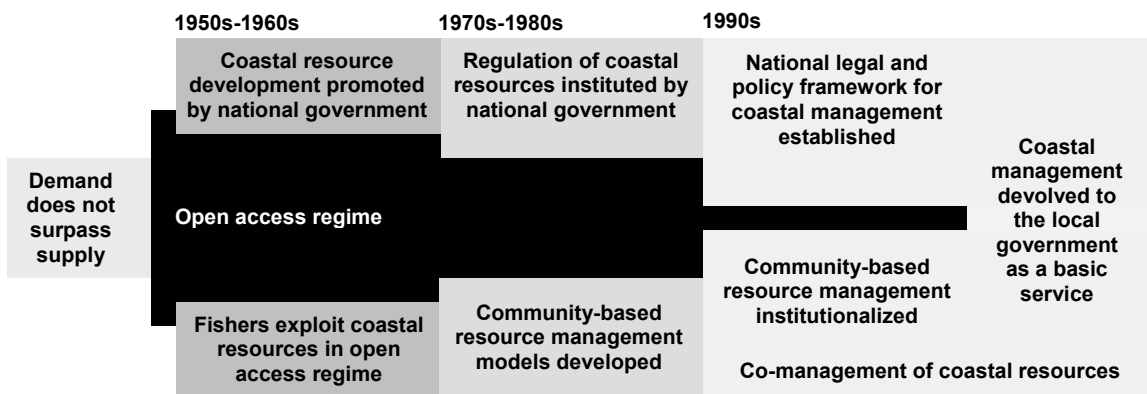


Figure 1.1 Evolution of coastal resource management in the Philippines

There were encouraging developments at the national policy and legal fronts that sought to address the overexploitation of natural resources. The 1991 Local Government Code (LGC)

mandated LGUs to maintain ecological balance, and devolved the management of coastal resources and municipal waters to coastal municipalities and cities. The National Integrated Protected Areas System Act (NIPAS), enacted by Congress in 1992, established the Philippines' national park system for terrestrial and marine environments. Department Administrative Order 1993-19, issued by the DENR in 1993, created the Coastal Environment Program (CEP), with the specific mandate to conserve and manage the coastal environment. And, the National Marine Policy, adopted in 1994, articulated the Philippine government's response to the growing awareness of the importance of the marine sector and the ocean environment for national and international security (DENR 2001).

The Government of the Philippines (GOP) and the United States Agency for International Development (USAID) took these policy developments into account in laying out CRMP. Perhaps the most significant of the policies that came out in the 1990s in the Philippines was the LGC, which devolved certain powers and responsibilities in the areas of health and sanitation, agriculture, social welfare, and environmental management from the national government to the LGU.

The LGC provided the initial policy structures needed to decentralize the management of coastal resources. It expanded the scope of municipal waters to 15 km from 7 km, giving LGUs greater jurisdiction over the use and conservation of the area. It also refocused State policies favoring maximum utilization of fishery resources and exportation of fish and fishery products, and devolved some powers and functions of the Department of Agriculture (DA), DENR and other concerned national government agencies (NGAs) to the LGUs, including the right to grant licenses, leases and permits for the use of municipal waters.

At the beginning of the Project, however, these policies were only just starting to filter down through the layers of government bureaucracy. Policy reforms had been largely implemented only at the national level, mostly as policy intent and direction, and had not been operational. The gap between national policy and what was happening at the local level was glaring in most places. LGUs recognized the problems besetting their constituents in fishing communities, but because of their lack of awareness of their mandate over municipal waters, they regarded such problems as primarily the national government's concern. Compared to such devolved functions as health and agricultural services, natural resource management in general received low LGU prioritization (GreenCOM 1996).

In light of the Philippine context, issues and experience in coastal management, the Project attempted to address a variety of basic issues with implications for the overuse and degradation of Philippine coastal resources. These issues, as stated in 1996, were:

- Local governments are not yet effective at managing their jurisdictional areas for coastal resources under the LGC;
- CRM and fisheries policies and the roles of various national and local agencies involved are not clear among all participants in CRM planning and implementation;
- Human resources to plan and impel CRM are not sufficiently developed;
- Slow economic development in coastal areas increases pressure on fisheries resources;
- Market failures in the coastal resource economy perpetuate poverty and promote overfishing and inappropriate use of coastal habitats;
- *De facto* open access system causes overexploitation of most coastal resources;
- Low productivity resulting from habitat destruction, pollution, and overexploitation decreases economic benefits from coastal resources; and,
- Loss of marine and coastal biodiversity, which is irreversible, continues.

This chapter explains how CRMP developed its operational results framework to best address the challenges. It also highlights how CRMP took advantage of the emerging opportunities for CRM while trying to close the gap between policy intent and action.

### **Mission, Objectives and Results Framework**

Originally conceived as a 7-year effort (1996-2002) “to address serious overfishing and the imminent collapse of fisheries in coastal waters”, CRMP was tasked to support a “strategic spread” of CRM among LGUs, to make operational the national policy of coastal and marine management. The Project’s design was articulated in a 37-page Statement of Work (SOW) issued by the USAID, which provided the general and specific objectives, indicators, target groups, approach, and implementing strategy for CRMP (USAID 1995).

As stated in the SOW, the Project was to use the best experiences in the Philippines’ long history in community-based CRM (CB/CRM) and other innovative approaches to achieve five results:

1. Communities effectively managing their coastal resources, limiting access to their resources in equitable ways and reducing fishing effort, yet attaining sustainable harvests and realizing an increase in their profit;
2. Effective teams of site staff who will continue to provide assistance to coastal communities and their local governments in managing coastal resources during and after project life;
3. Strengthened local government capacity to support community initiatives, and national government capacity to monitor resource status and implement policies that support community management efforts;

4. An effective delivery system for communication, education and information-sharing in place; and
5. Increased public and private sector investment in CB/CRM and in developing alternative and viable livelihood enterprises.

The SOW specified the following Project performance objectives, along with a preliminary results framework containing two sets of indicators—one for fiscal year 2000, the 5<sup>th</sup> year of CRMP's implementation, and the other for 2002, the end of the original life of the Project (Table 1.1):

1. Coastal waters along 3,000 km of shoreline managed for sustainable harvest by local communities in about 140 municipalities;
2. Increased public sector investment in CRM activities;
3. Mechanisms for providing equity in access to coastal resources established and widely applied; and
4. Established incentive system for long-term industry investment in CRM and fishery-related activities.

The SOW served as the basis for formulating the mission statement, which said:

*“To catalyze CRM in the Philippines to a threshold that will expand nationwide and be sustainable beyond the life of the Project.”*

This mission statement incorporated three conditions of technical assistance to address the urgency of the coastal situation in the Philippines. First, CRMP must serve as a catalyst for CRM initiatives and leadership, promoting self-reliance, empowering coastal communities with responsibility and information, and building a cadre of leaders and constituencies to support CRM initiatives. Second, expansion of CRM through institutional and sectoral networks was critical to achieve a condition of mutual reinforcement, and a critical mass of CRM in the country. And, third, the objective was to achieve a threshold of CRM, the basic capacity and institutionalization required to sustain CRM beyond the life of the Project (CRMP 2000).

### **Fine-tuning the Results Framework**

CRMP's mission statement was contained in its operational framework, developed early in the Project and which also included the preliminary results framework and performance targets (Table 1.1), strategic entry points, approach, and strategic interventions. Coincidentally, at the same time that Project implementation began in April 1996, the International Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) reviewed various initiatives to address the rapidly deteriorating condition of the coastal environment around the

world and found that they were unable to determine if such initiatives were actually working, or if lessons learned from successes and failures in other countries could be articulated and shared. They agreed that there was an urgent need to develop an accepted integrated CRM evaluation methodology. This led to a series of international workshops and meetings where international experts continued to debate and consolidate monitoring and evaluation (M&E) themes and indicators from CRM (CRMP 2000).

**Table 1.1 Performance objectives and indicators, as defined in the CRMP SOW (USAID 1995)**

<b>OBJECTIVES</b>	<b>INDICATORS (FY 2000)</b>	<b>CUMULATIVE INDICATORS (LIFE OF PROJECT: 2002)</b>
<p>1. Coastal waters along 3,000 kms of shoreline managed for sustainable harvests by local communities (in about 140 municipalities)</p>	<p>Along 2,000 km of shoreline:</p> <ul style="list-style-type: none"> <li>a. Management plans being developed and implemented by communities for the management and protection of at least 2,000 km coastline;</li> <li>b. Municipal governments include community-initiated CRM activities in their annual development plans.</li> </ul> <p>In support of communities and municipalities along 2,000 km of shoreline:</p> <ul style="list-style-type: none"> <li>a. 680 site level staff trained to coach coastal communities and their local governments as they implement sustainable management;</li> <li>b. Increased capacity of DENR, DA-BFAR and other agencies to monitor coastal resources and plan from a common database;</li> <li>c. 13,000 hectares of mangrove area cleared for fishponds reverted to forest land by DENR and DA-BFAR;</li> <li>d. Effective IEC program developed and implemented</li> </ul>	<p>Along 3,000 km of shoreline:</p> <ul style="list-style-type: none"> <li>a. Management plans being developed and implemented by communities for the management and protection of at least 3,000 km coastline;</li> <li>b. Municipal governments include community-initiated CRM activities in their annual development plans;</li> </ul> <p>In support of communities and municipalities along 3,000 km of shoreline:</p> <ul style="list-style-type: none"> <li>a. 920 site level staff trained to coach coastal communities and their local governments as they implement sustainable management;</li> <li>b. Increased capacity of DENR, DA-BFAR and other agencies to monitor coastal resources and plan from a common database;</li> <li>c. 20,000 hectares of mangrove area cleared for fishponds reverted to forest land by DENR and DA-BFAR</li> <li>d. Effective IEC program developed and implemented</li> </ul>

<p>2. Increased public sector investment in CRM activities</p>	<p>a. National government investments in support of CRM increased by 3-4% annually starting 1997;  b. Municipal governments along 2,000 km of coastline annually allocate 2-4% of their internal revenue allotment to support community CRM initiatives</p>	<p>a. National government investments in support of CRM increased by 3-4% annually starting 1997;  b. Municipal governments along 3,000 km of coastline annually allocate 2-4% of their internal revenue allotment to support community-based CRM initiatives</p>
<p>3. Mechanisms for providing equity in access to coastal resources established and widely applied</p>	<p>Along 2,000 km of shoreline:  a. Municipal ordinances that regulate coastal resource use to provide equitable access within the context of the requirement to limit access are enacted and implemented;  b. 50% of available mangrove forest land under small holder management with secure tenure</p>	<p>Along 3,000 km of shoreline:  a. Municipal ordinances that regulate coastal resource use to provide equitable access within the context of the requirement to limit access are enacted and implemented;  b. 70% of available mangrove forest land under small holder management with secure tenure</p>
<p>4. Established incentive system for long-term industry investment in CRM and fishery-related industries</p>	<p>Along 2,000 km of shoreline:  a. Enterprise opportunities and appropriate links with credit sources, markets and technical assistance identified and made available to concerned community members;  b. 20% of participating coastal municipalities enacted ordinances that encourage increased private sector investment;  c. Increased collaborative effort between the national and local government to develop mechanisms that promote partnership between the government and private sector in coastal resource-based industries and product development</p>	<p>Along 3,000 km of shoreline:  a. Enterprise opportunities and appropriate links with credit sources, markets and technical assistance identified and made available to concerned community members;  b. 30% of participating coastal municipalities enacted ordinances that encourage increased private sector investment;  c. Increased collaborative effort between the national and local government to develop mechanisms that promote partnership between the government and private sector in coastal resource-based industries and product development</p>

With GESAMP’s cue, the Philippine Government, USAID and CRMP agreed to review the preliminary results framework contained in CRMP’s SOW to develop more relevant indicators to measure the success of the Project, and translate lessons learned from Project experience into strategies and approaches that could be applied elsewhere. The review process took two years, and culminated in 1998 in the approval of a revised results framework, which, for the rest of the life of CRMP, served as a cornerstone of operations, and guided most decisions, implementation strategies, and expenditure of Project funds. The 1998 results framework highlighted two top-level indicators and three intermediate results and corresponding indicators (Figure 1.2).

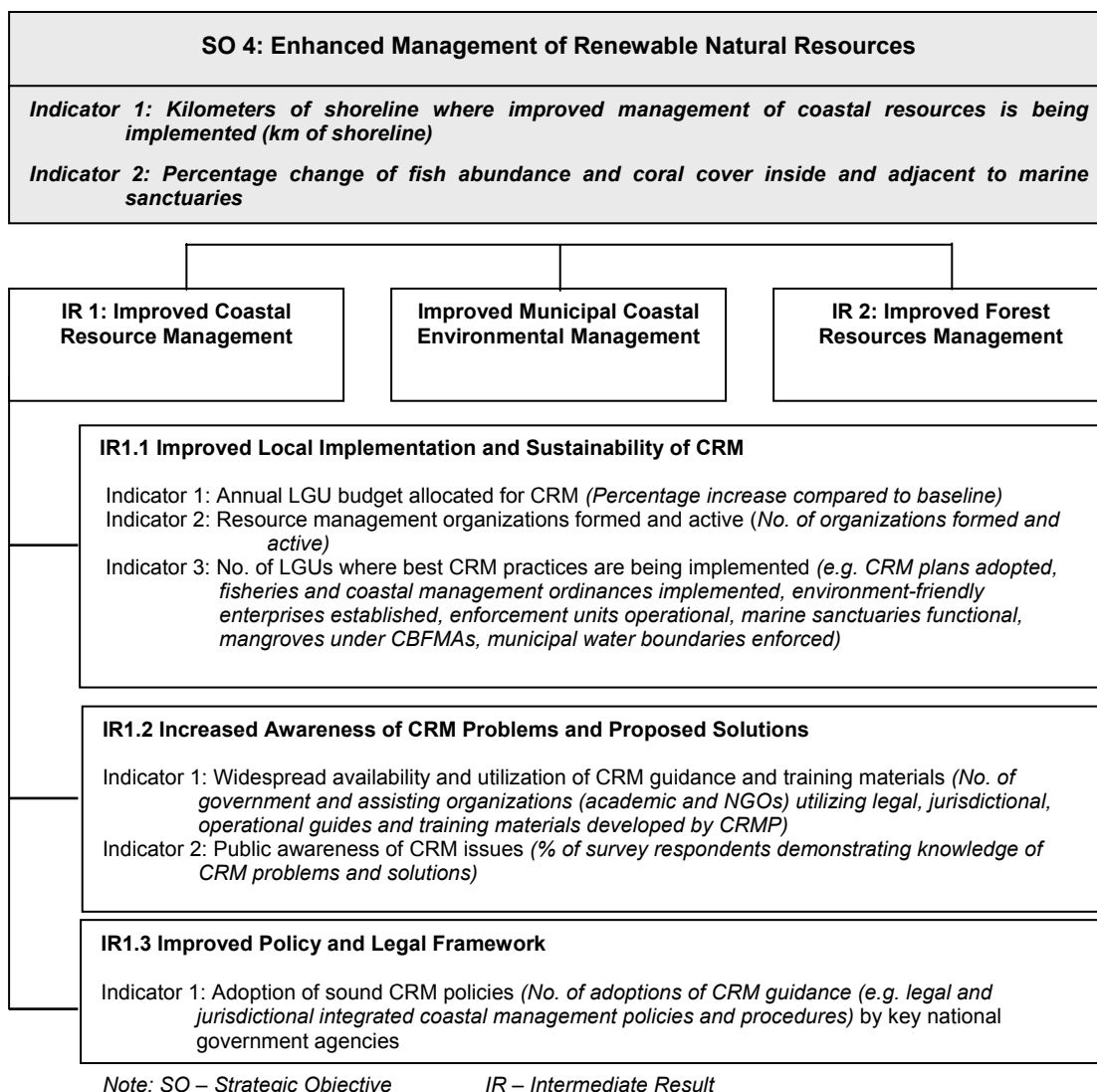


Figure 1.2 Results framework for CRMP implementation period December 1998 – June 2002



**Strategic Objective.** The target for the first indicator at the strategic objective level—kilometers of shoreline where improved management of coastal resources is being implemented (*km of shoreline*)—was 3,000 km of shoreline or roughly 17% of the Philippines’ total coastline of 18,000 km under improved management by the end of 2002 and later increased to 3,500 km by the end of 2004.

Reflecting the CRMP partners’ common interest to show biophysical impact as an ultimate result of the initiative, the second indicator at the strategic objective level measured two biophysical attributes of the coral reef environment:

1. *Fish abundance inside and adjacent to marine sanctuaries.* Average percent change (in comparison to base years) in fish abundance inside and adjacent to marine sanctuaries, using standard survey methods. Fish abundance was estimated five times over the life of the Project.
2. *Coral cover inside and adjacent to marine sanctuaries.* Percent living coral cover inside and adjacent to six marine sanctuaries, using standard transect methods. Coral cover was estimated six times over the life of the Project.

The intention was to measure biophysical impact as an indicator of how improved coastal management could contribute to enhanced coral reef quality while realizing that exact cause-and-effect relationships were vulnerable to variables outside of CRMP’s control. An example, the El Niño occurrence in 1997 and 1998, resulted in widespread bleaching of coral reefs throughout the Philippines and did in fact negatively impact the reefs monitored by CRMP. Nevertheless, the 8-year duration of the project provided time for the reefs to recover and show positive results beyond project targets. This biophysical monitoring also contributed to the databases of local and national government programs by collecting data to monitor long-term trends in biophysical indicators, employing appropriate technologies that could be replicated spatially and temporally. It also built capacity in local institutions to do the monitoring.

**Intermediate Results.** Three intermediate results fed into the strategic objective (Figure 1.2). The first intermediate result, *IRI.1 Improved local implementation of CRM*, defined the essential basic ingredients for CRM, including monitoring of ecological and social changes resulting from improved management as well as policy, legal and institutional changes characterized by enhanced governance. The following criteria were used to evaluate local CRM implementation:

1. *Annual LGU budget allocated for CRM.* The target was for municipal LGUs to appropriate increasing annual budget allocations for CRM, from a baseline of

Php107,981 per year based on a pre-Project survey of the 1995 budget allocations of 23 municipalities in the six CRMP “Learning Areas”.

2. *Resource management organizations formed and active.* Organizations were counted as “active” when they met regularly (more than six times a year), discussed CRM-related issues, implemented projects and plans for CRM, facilitated training for members, and undertook networking and linkages with other people’s organizations (POs) and LGUs involved in policy and advocacy work for CRM.
3. *Best CRM practices implemented.* The following practices were considered: CRM plans adopted, fisheries and coastal management ordinances implemented, environment-friendly enterprises established, law enforcement units operational, marine sanctuaries functional, mangroves under community-based forest management agreements (CBFMA), and municipal water boundaries enforced.

When a municipality achieved these indicators, the kilometers of shoreline represented by that municipality were counted under the strategic indicator as kilometers of shoreline where improved management of coastal resources was being implemented. CRMP’s operational targets were:

1. Municipal management systems implementing improved management of coastal resources along 670 km of shoreline in 29 Learning Area municipalities by the end of 2000
2. Municipal management systems initiating (replicating) improved CRM utilizing CRMP products and services along 2,330 km of shoreline in expansion areas by the end of the year 2002.

For *IRI.2. Increased awareness of CRM problems and solutions*, the following indicators were used:

1. Widespread availability and utilization of CRM guidance and training materials
2. Public awareness of CRM issues

Both qualitative and quantitative surveys were conducted to evaluate the impact of the Project’s key interventions and the utilization of CRMP products (guidebooks and training modules, for example) by NGAs, LGUs, and assisting organizations, including those in the academic and NGO sectors. Respondents were deemed to have acquired increased awareness of CRM issues when they demonstrated knowledge of the current conditions and problems affecting coastal resources, and solutions to coastal problems.

For *IR1.3. Improved policy and legal framework for CRM*, the indicator was a measure of the degree to which NGAs agreed on and adopted an integrated policy and legal framework for CRM.

## Defining CRMP's Strategy

The more than two years that it took to evolve the 1998 results framework (Figure 1.2) was a period of learning and innovation for the Project. At the outset, the operational framework pointed out what the CRMP mission demanded: The Project must go beyond implementing pilot-scale projects to impelling the spread of CRM initiatives to a broad cross-section of coastal stakeholders. CRMP had to move from a purely CB/CRM approach with the fisherfolk as a primary target group to a strategy that focused on local government mandates to deliver CRM as a basic service, with coastal municipalities and provinces as a strategic entry point. This shift was considered essential for sustainability of the Project's interventions. While it is generally recognized that community participation is an important element of sustainable CRM, LGUs are the legally mandated government units to implement CRM, and depending on their biases, can easily derail or push forward community efforts.

As Project implementation progressed, it became clear what capacity development for CRM entailed. The challenge was not so much in convincing LGUs that CRM was not only a critical need but also their mandate—most LGUs were aware of the declining state of coastal resources (Table 1.2) and, once informed, acknowledged their role in CRM readily enough. The bigger challenges were capacity limitations at both the local and wider systems level. Human resource deficiencies were a major limiting factor, and key success factors—policy frameworks, decision-support and management mechanisms, and accountability structures—were also largely missing. National government staff devolved to the local government in 1991 had little or no experience in coastal management. Fisheries officers devolved to the municipality were trained primarily in fisheries development and fishing gear technology, skills that could not be applied to issues of overfishing and habitat degradation throughout the country. Even though the 1998 Fisheries Code promoted coastal management as a national strategy, capacity-building activities had to facilitate a mental transformation from resource exploitation to management and protection (Courtney *et. al.* 2002).

It was understood then that the biggest investments of the Project (75%) would be made at the LGU level, but to even begin to catalyze the many changes required to bring about sustainable CRM, CRMP had to consider the broader environment in which the LGU functions and address national policy and structural issues that affected local implementation. This need to approach CRM from a wider systems perspective was recognized in the original Project design, which specified, as a key strategy, assistance to NGAs in defining their role in CRM under a decentralized governance system (USAID 1995). This implied the need for close coordination

between concerned NGAs and the LGU and, to ensure the continued relevance of policy emanating from the national level, a mechanism for measuring progress in CRM by ensuring a constant flow of information from the field to policy level and back.

**Table 1.2 Mayor’s views on their CRM mandate and the coastal environment (Courtney *et al.* 2002)**

In 1997, coastal mayors participated in a survey conducted by CRMP in partnership with the League of Municipalities of the Philippines (LMP), the national association of all municipalities in the Philippines. The survey results provided an estimate of the condition of coastal resources based on the perceptions of over 250 coastal mayors (approximately 30% of all coastal mayors) throughout the country. As shown in the table below, the mayors were aware that the condition of coastal resources was deteriorating. Few coastal mayors considered their coastal habitats and fisheries to be in excellent condition, and over 40% of coastal mayors rated their coral reef, seagrass, and mangrove habitats in poor condition. These perceptions are fairly consistent with scientific studies of 85 coral reefs conducted by Gomez *et al* in 1994, where less than 5% of coral reefs surveyed were considered in excellent condition. Furthermore, coastal mayors identified a lack of technical expertise and trained staff (over 80% of responses), and inadequate funding (over 70%) as the key obstacles to fulfilling their mandate to manage coastal resources.

Resource	No. of respondents	Condition		
		Poor (%)	Good (%)	Excellent (%)
<b>Coral reef</b>	<b>293</b>	<b>40</b>	<b>52</b>	<b>8</b>
<b>Seagrass</b>	<b>267</b>	<b>41</b>	<b>54</b>	<b>5</b>
<b>Mangrove</b>	<b>276</b>	<b>47</b>	<b>48</b>	<b>5</b>
<b>Estuary</b>	<b>308</b>	<b>28</b>	<b>71</b>	<b>1</b>
<b>Beach</b>	<b>299</b>	<b>23</b>	<b>61</b>	<b>16</b>
<b>Municipal fisheries</b>	<b>297</b>	<b>28</b>	<b>63</b>	<b>9</b>
Obstacles		% of respondents (n = 343)		
<b>Lack of staff trained in coastal management/lack of technical expertise in CRM</b>		<b>81</b>		
<b>Inadequate funding for CRM</b>		<b>74</b>		
<b>Lack of integrated environmental management, planning, and implementation</b>		<b>67</b>		
<b>Low participation level by community in CRM</b>		<b>52</b>		
<b>Unclear legal jurisdiction over resources</b>		<b>43</b>		

*Survey respondents were coastal mayors assessing the status of coastal resources in their municipalities and identifying multiple issues. Survey was conducted by CRMP during the 1997 National Convention of the League of Municipalities of the Philippines.*

Thus, as CRMP continued to use the SOW as a basic guide, it innovated and refined strategies, modified and added new design elements to its operational framework (Figure 1.3, Table 1.3), to better reflect the realities in the field and respond to windows of opportunity that had not been anticipated. Capturing the lessons learned from field experiences provided

opportunities to improve the operational framework and field implementation. With partners in government and Learning Area teams, CRMP evolved its operational framework through annual strategic planning exercises, and documented its experiences and the lessons they generated in annual work plans.

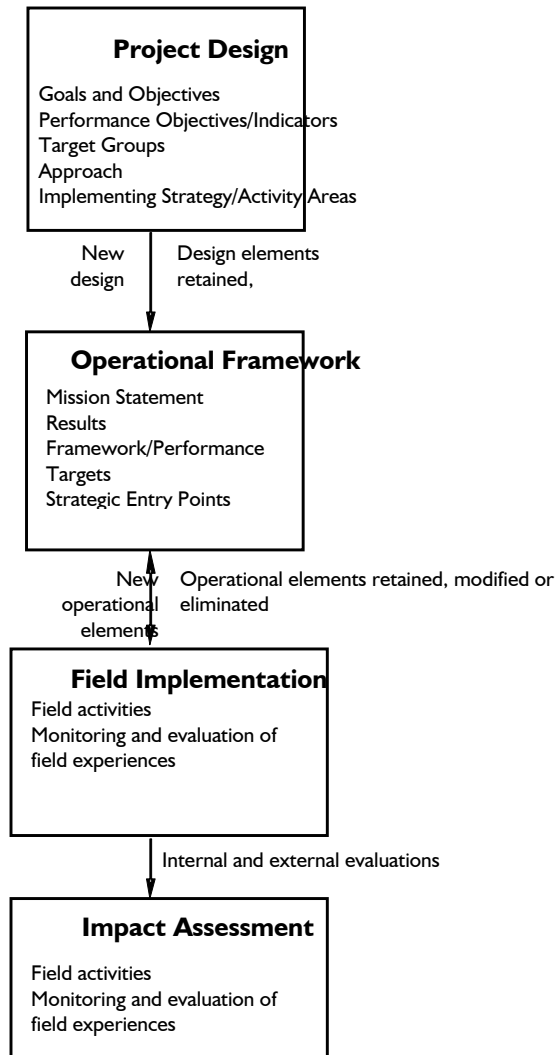


Figure 1.3 Transformation of CRMP design into fieldwork and implementation (Courtney *et al.* 2002)

Table 1.3 Comparison of key elements of CRMP design and operational framework (Courtney *et al.* 2002)

Project Design (USAID Statement of Work, 1995)	Operational Framework (CRMP Work Plans 1996-2002; USAID Results Framework 1998)
<b>Goals and Purpose</b>	<b>Mission Statement</b>
<ul style="list-style-type: none"> <li>• To achieve sustainable management of coastal resources in sufficiently large areas of the Philippines in such a way that ongoing resource degradation in these areas is offset or even reversed</li> <li>• To support widespread, sustainable and replicable application (strategic spread) of the CB/CRM approach</li> <li>• To achieve effective community management of coastal resources with an enhanced in-country capacity and efficient incentive system for increased and continuing public and private sector investment to support replication and sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• To catalyze CRM to a threshold that will expand nationwide and be sustainable beyond the Project life</li> </ul>
<b>Project Objectives/Indicators</b>	<b>Results Framework/Performance Targets</b>
<ul style="list-style-type: none"> <li>• Coastal waters along 3,000 km of shoreline managed for sustainable harvests by local communities</li> <li>• Increased public sector investment in CRM activities</li> <li>• Mechanisms for providing equity in access to coastal resources established and widely applied</li> <li>• Established incentive system for long-term industry investment in CRM and fishery-related industries</li> </ul>	<p><i>Strategic Objective</i></p> <ul style="list-style-type: none"> <li>• 3,000 km of shoreline where improved management of coastal resources is being implemented by the end of 2002</li> <li>• Increased fish abundance and coral cover inside and adjacent to marine sanctuaries</li> </ul> <p><i>Intermediate Results</i></p> <ul style="list-style-type: none"> <li>• Improved local implementation of CRM: For each coastal municipality/city:               <ul style="list-style-type: none"> <li>○ Annual budget allocated for CRM</li> <li>○ Resource management organizations formed and active</li> <li>○ At least 2 CRM best practices are being implemented</li> </ul> </li> <li>• Increased awareness of CRM problems and solutions:               <ul style="list-style-type: none"> <li>○ Widespread availability and utilization of CRM guidance and training materials among government and NGOs</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Public awareness of CRM issues</li> <li>• Improved policy and legal framework for CRM:             <ul style="list-style-type: none"> <li>○ Adoption of sound CRM policies by key NGAs</li> </ul> </li> </ul>
<b>Target Groups</b>	<b>Strategic Entry Points</b>
<ul style="list-style-type: none"> <li>• Small-scale coastal resource users</li> <li>• NGOs and other institutions that facilitate the application of CB/CRM by coastal communities</li> <li>• LGUs</li> <li>• NGAs</li> <li>• Commercial and industrial businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal/city government with active participation from coastal resource users</li> <li>• Provincial governments</li> <li>• LMP, League of Cities of the Philippines (LCP), League of Provinces of the Philippines (LPP)</li> <li>• Local/national NGOs and academic institutions</li> <li>• DENR/DA-BFAR and DILG</li> <li>• Media, tourism and seaweed industry</li> </ul>
<b>Approach</b>	<b>Approach</b>
<ul style="list-style-type: none"> <li>• Community-focused</li> <li>• Watershed system approach</li> <li>• Donor collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Coastal LGU-focused</li> <li>• CRM/integrated coastal management (ICM) approach</li> <li>• Multi-sectoral, multi-institutional, inter-LGU collaboration for strategic spread of project interventions</li> <li>• Two-track approach with national and local interventions implemented simultaneously and iteratively</li> </ul>
<b>Implementing Strategy/Activity Areas</b>	<b>Strategic Interventions</b>
<ul style="list-style-type: none"> <li>• Promote management of coastal resources for widespread application of CB/CRM approaches</li> <li>• Conduct continuing research and development of CB/CRM approaches and fishing technologies</li> <li>• Enhance local government capacity to support community resource management initiatives</li> <li>• Train large numbers of community-level workers to teach CB/CRM approaches and assist communities and their local governments</li> </ul>	<ul style="list-style-type: none"> <li>• Mainstream CRM as a basic service of LGUs</li> <li>• Develop state-of-the-art CRM approaches, models, best practices and guidance through an adaptive, learning-based approach</li> <li>• Build LGU capacity to develop and implement CRM plans and programs through a participatory process involving coastal stakeholders</li> <li>• Develop critical mass of trained CRM leaders from key institutional partners in LGUs, NGAs, NGOs, and academic institutions to provide ongoing technical assistance and training to LGUs</li> </ul>

<ul style="list-style-type: none"> <li>• Develop alternative economic opportunities for displaced fisherfolk and assist fisherfolk adopt a more enterprise-oriented approach to fishing</li> <li>• Assist NGAs better define their roles in view of devolution and implement policies supportive of CB/CRM and resource monitoring</li> <li>• Develop broad support for sustainable fishery resource management at local and national levels through the use of mass media, multi-media public information campaigns, awareness building and production of training and extension materials</li> </ul>	<ul style="list-style-type: none"> <li>• Develop enterprise development models integrated as CRM best practices</li> <li>• Enhance CRM policies and develop mechanisms to align national government policies, plans and programs in support of local government CRM initiatives</li> <li>• Establish CRM on national and local agendas using multiple communication modes, including social marketing, social mobilization, development support communication, and advocacy</li> </ul>
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An enhancement of the Project design was the use of a two-track approach, where national and local level implementation activities were conducted simultaneously and iteratively. On the one hand, to demonstrate how CRM could benefit coastal stakeholders and to create local demand for CRM services, CRMP had to implement concrete experiences and build a solid body of knowledge in the application of CRM best practices at the community level. On the other, to achieve the desired spread or threshold level of CRM, CRMP needed to bring to the attention of the country’s highest leaders the urgent call for government to support CRM as a basic service to coastal communities. Given the centralized nature of decision-making in Philippine politics, without the convergence of national policies and local initiatives, no amount of CB/CRM programs will reach the threshold of sustainability. To achieve a threshold of sustained CRM over 3,000 km of shoreline, CRMP had to move coastal issues to the forefront of the country’s political landscape and public milieu, and transform perception of these issues from “local, sectoral and productivity issues” to “national, general public and environmental problems.” CRMP had to expand ownership of coastal issues beyond sectoral confines to a broader and “noisier” political base. And CRMP had to repeatedly affirm the LGUs’ mandate to manage coastal resources (Smith *et al* and CRMP 2000).

“Agenda-setting” was thus one of the most important aspects of work in the early stages of the implementation of CRMP. At the national level, the immediate objective was to “create a buzz” around marine and coastal issues and engage the general public so that these issues were perceived as urgent problems requiring national attention and solutions. CRMP’s strategy included the extensive use of mass media, conduct of special events and promotional activities, partnerships with strategic institutions and organizations to serve as “multipliers” and “pressure points” for CRM, and the inclusion of the general public as a broad base of support for CRM initiatives. (Smith *et al* and CRMP 2000)



At the same time, CRMP started the process for the prioritization of CRM in the agenda of the more than 800 coastal municipalities, at the national level, primarily through a partnership with the LMP and, in the six Learning Areas, through direct interventions at the community and LGU levels. CRMP developed capacity building approaches that simultaneously addressed capacity issues at both the local and wider systems levels. Their objectives were to:

- Foster a critical mass of local leaders in CRM
- Promote CRM in the daily operations of local government as a basic service
- Develop and increase the technical capacity of local CRM core groups
- Catalyze multi-sectoral and multi-institutional collaboration to sustain capacity-building efforts
- Benchmark LGU performance in CRM through M&E.

When the CRMP revised results framework (Figure 1.2) was completed in late 1998, it considered the lessons and experiences accumulated over at least three years of on-the-ground work involving the application of specific CRM strategies. This both affirmed and clarified the direction of CRMP and provided the focus necessary to more clearly orient efforts and resources towards CRMP's goal.

### **Meeting Objectives through Expansion**

The application of the 1998 results framework (Figure 1.2) defined the second half of CRMP implementation. By this time, CRMP was ready to elevate implementation to a level of expansion. An external mid-term assessment conducted in 1998 highlighted CRMP's accomplishments and suggested areas for realignment of Project interventions (Table 1.4). This assessment recommended that, to achieve sustainability of CRM planning and implementation in Learning and Expansion areas, CRMP's remaining life could be divided into two phases. During the first phase, achievements in Learning Areas and the institutionalization of CRM planning and implementation in Expansion Areas would be given emphasis, with a special focus given to capacity development at the provincial level in Expansion Areas. During the second phase, area-wide institution-building would be the priority, with CRMP assisting LGUs in the preparation and implementation of harmonized plans in wider geographic areas (Rassas *et al* 1999).

Based on this and internal assessments of Project performance, CRMP replicated and further innovated strategies and applied the best lessons generated in Learning Areas. Guided by the 1998 results framework (Figure 1.2), the Project prioritized activities to go in a specific direction according to the desired Project results, never forgetting that the higher goal was to

build the capacity of the institutional partners so that they would be able to continue their CRM work beyond the life of CRMP. CRMP thus made a consistent effort to build its objectives into the requirements of the development thrusts and program themes of partner institutions, in particular, the LGUs. By focusing on national and local priorities and conditions, and by building on existing capacities, the Project approach contributed to enhancing partners' commitment to and sense of ownership over the CRM process.

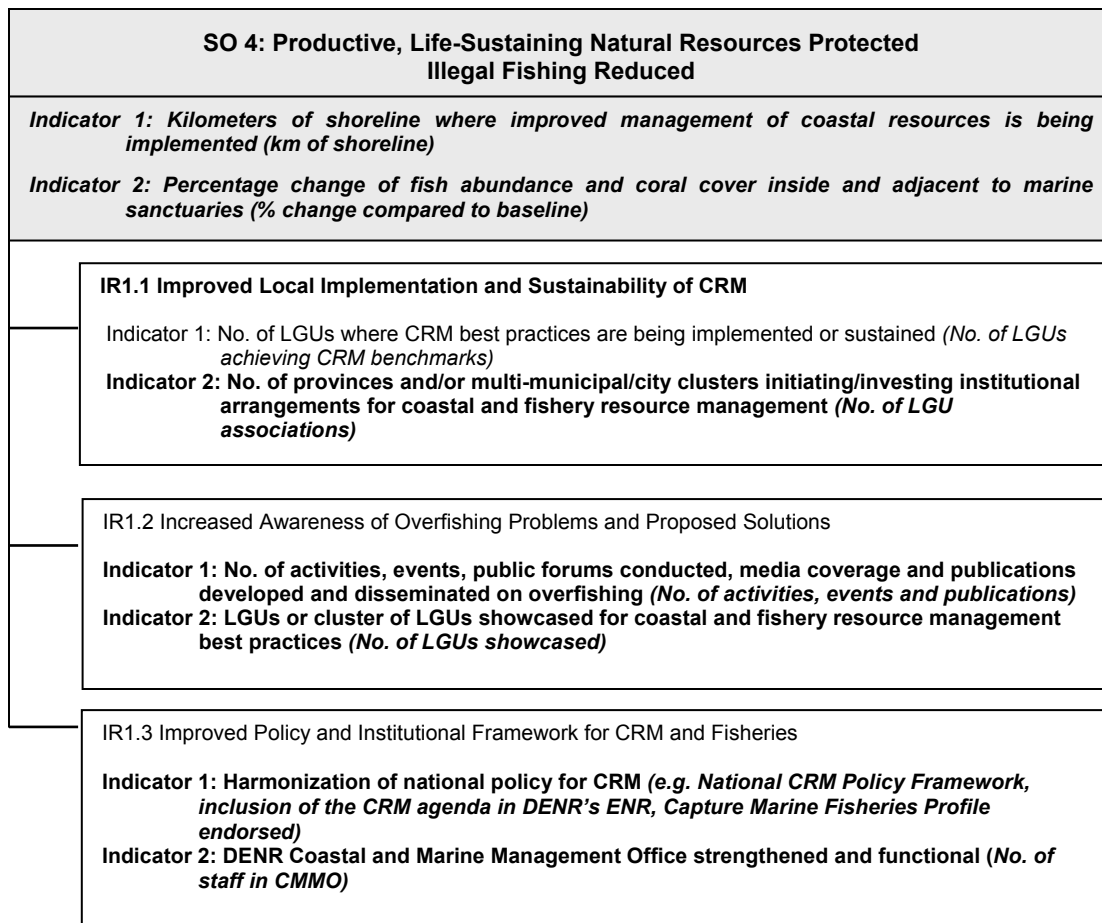
**Table 1.4 Summary of mid-term evaluation results (Rassas et al. 1999)**

Major Achievements	Proposed Strategic Adjustments
<p>Policy Component</p> <ul style="list-style-type: none"> <li>• Most policy studies and outputs reviewed for the evaluation are both highly relevant and of excellent quality</li> <li>• Actively solicited collaboration with several local institutions and donor-funded projects</li> </ul>	<p>Policy Component</p> <ul style="list-style-type: none"> <li>• Provide further assistance to strengthen legal framework for law enforcement</li> <li>• Play leadership role in the preparation of the national coastal master plan</li> <li>• Provide organizational development assistance to DENR</li> <li>• Strengthen coastal law enforcement system</li> </ul>
<p>Training</p> <ul style="list-style-type: none"> <li>• CRMP training is well-received by participants at all levels; feedback provided to the evaluation team from the communities, LGUs and NGAs indicates that CRMP's training program has been an unqualified success</li> <li>• Participatory approach used for training has generated considerable interest among pilot <i>barangays</i> (villages) in developing local resource maps and plans</li> <li>• CRMP's participatory approach has stimulated interest among neighboring <i>barangays</i>, and generated requests for similar assistance</li> <li>• Involvement of national agency representatives in ICM training has generated interest in the institutionalization of CRM in future planning at all levels of government</li> <li>• Through successful PCRA training, the willingness of the local community to assume a leadership role in managing coastal resources is increasing; new attitude demonstrated by the evident enthusiasm and sense of ownership by participants in the presentation of their area maps and plans</li> </ul>	<p>Training</p> <ul style="list-style-type: none"> <li>• Development of national capacity at all levels should be a central feature of the training program</li> <li>• A training-of-trainers program should be formulated to institutionalize training activities with DENR, Agricultural Training Institute (ATI)/BFAR and the provinces</li> <li>• Province should serve as the hub for future CRM training playing a leadership role in all activities carried out in CRMP expansion areas</li> </ul>

<ul style="list-style-type: none"> <li>• CRMP has added significantly to the knowledge base of CRM training by developing relevant training materials of the highest quality</li> <li>• CRMP's participatory approach has been central to the success of its training</li> </ul>	
IEC Component	<p>IEC Component</p> <ul style="list-style-type: none"> <li>• Shift from “large-group interventions” to focused agenda based on a structured set of more targeted and well-defined interventions</li> <li>• Prepare dissemination plan for each IEC product to include objectives, definition of target audience, dissemination mechanisms, and evaluation plan</li> </ul>
Mangrove and Enterprise Components	<p>Mangrove and Enterprise Components</p> <ul style="list-style-type: none"> <li>• Integrate fully the mangrove and enterprise components into CRM planning and implementation</li> </ul>
Learning Area Operations	<p>Learning Area Operations</p> <ul style="list-style-type: none"> <li>• Provide training in CRM planning to new sites and follow-up training where needed</li> <li>• Monitor and evaluate CRM plan implementation, identify major constraints and opportunities to achieve more effective implementation and assist in making revisions to plans as appropriate</li> <li>• Use cross-visits to learning areas</li> </ul>
Expansion Area Approach	<p>Expansion Area Approach</p> <ul style="list-style-type: none"> <li>• Develop a core group of CRM trainers at the provincial level through comprehensive training-of-trainers</li> <li>• Provide highly specialized technical training in certain areas and other limited support on an as-needed basis</li> <li>• Assist LGUs to prepare and implement harmonized CRM plans in wider geographic areas, e.g. bay-wide plans</li> <li>• Develop and implement a set of integrated coastal environmental monitoring programs</li> </ul>

In 2002, CRMP was extended by two years to June 2004 and then to December 2004. The extension was aimed at building on and strengthening priority thrusts to enhance sustainability and leverage investments made with existing and proposed CRM programs of the Philippine government, highlighting the reduction of illegal fishing as a strategic objective

(Figure 1.4). It was characterized by a greater emphasis on the important issue of overfishing in the country, and a deliberate focus on establishing mechanisms that would help sustain CRM at both local and national government levels. This was recognition of both the Project’s success in promoting CRM, and the still enormous need for capacity-building and technical assistance nationwide to protect and sustain vital coastal fishery resources, the lifeblood of millions of Filipinos for generations to come.



**Figure 1.4 Results framework for CRMP extension period July 2002 – June 2004 (Items in bold text have been modified relative to the 1998 results framework, Figure 1.2)**

### **Project Implementation Components**

The Project was divided for purposes of efficient administration into national and local level implementation (Figure 1.5). The national level implementation activities included two components: 1) policy and institutional development; and, 2) information, education and

communication (IEC). These national components, although informed by and supportive of all local project activities, maintained a national focus and helped to spread the policy and education work of CRMP nationwide. Local level implementation that in its entirety comprised a third component of CRMP, included technical assistance of various forms and training to LGUs and communities through sub-components as follows:

- a. CRM planning and implementation (including MPA establishment)
- b. Enterprise development
- c. Mangrove management
- d. Coastal law enforcement
- e. Municipal water delineation
- f. Fisheries management
- g. CRM monitoring and evaluation (M&E) system
- h. Training and capacity building

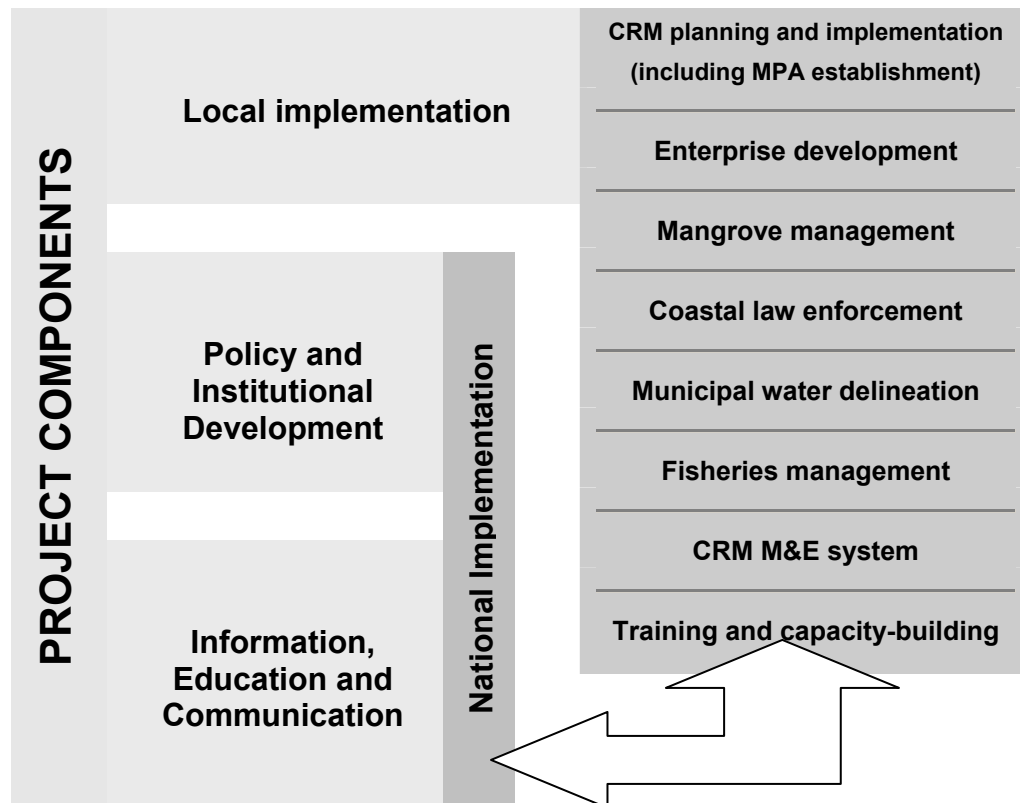


Figure 1.5 CRMP implementation components and sub-components



## Chapter 2

# Implementation Achievements and Results

*The overall Project success including contractor performance will depend on strategic spread of sustainable resource management. (USAID 1995)*

A key premise of the CRMP approach was that, to achieve strategic spread, CRMP needed to build a critical mass of leaders, LGUs, agencies and institutions supporting and implementing CRM, defined in the 1998 CRMP results framework by the strategic objective of 3,000 km of shoreline under improved management and intermediate results *IRI.1* through *IRI.3* (Figure 1.2). For much of the first half of Project implementation, the focus was on building the momentum for the spread of CRM from core Learning Areas by creating such a critical mass of leaders, bringing to a national scale the effort to create LGU awareness and demand for CRM services, and identifying and developing the CRM process, approaches, methodologies and tools to be adopted by the LGUs. In the second half, banking on success at building national awareness of CRM and focusing on the strategic objective and intermediate results defined in the 1998 results framework, CRMP made remarkable progress in refining the approaches and tools developed and in promoting their adoption among a network of partners nationwide. Thus, by end-2002, going into the 7<sup>th</sup> year of Project implementation, most CRMP targets had been surpassed.

This chapter summarizes CRMP's accomplishments in the context of the 1998 results framework (Figure 1.2), and revised results for the extension period (Figure 1.4), which committed the Project to deliver an additional 500 km by the end of 2004. Results are further elaborated in Appendix A, which contains all data supporting the indicators and results explained here.

### **Strategic Objective Indicators**

#### ***Kilometers of shoreline under improved management***

CRMP focused on six core Learning Areas (Olango, Cebu; Northwest Bohol; Negros Oriental; Sarangani; Malalag, Davao del Sur; and San Vicente, Palawan). From these areas, CRM expanded through leveraging with other programs and exporting and replicating products and services to other areas. CRM interventions in the Learning Areas were directly assisted by CRMP. In expansion areas, CRM interventions were catalyzed through collaboration with other projects, donor agencies, or the province, and the use of CRMP products and services.

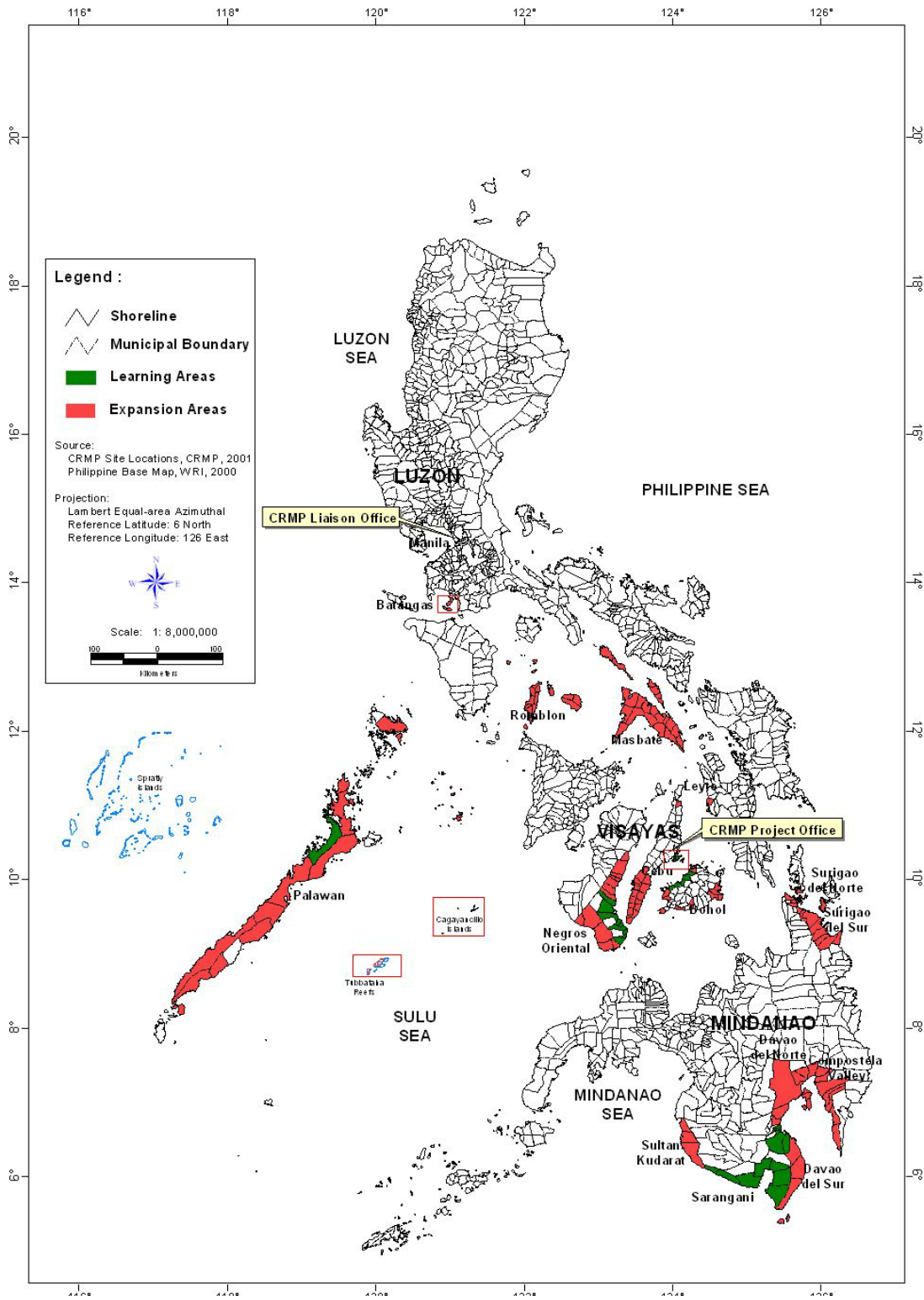
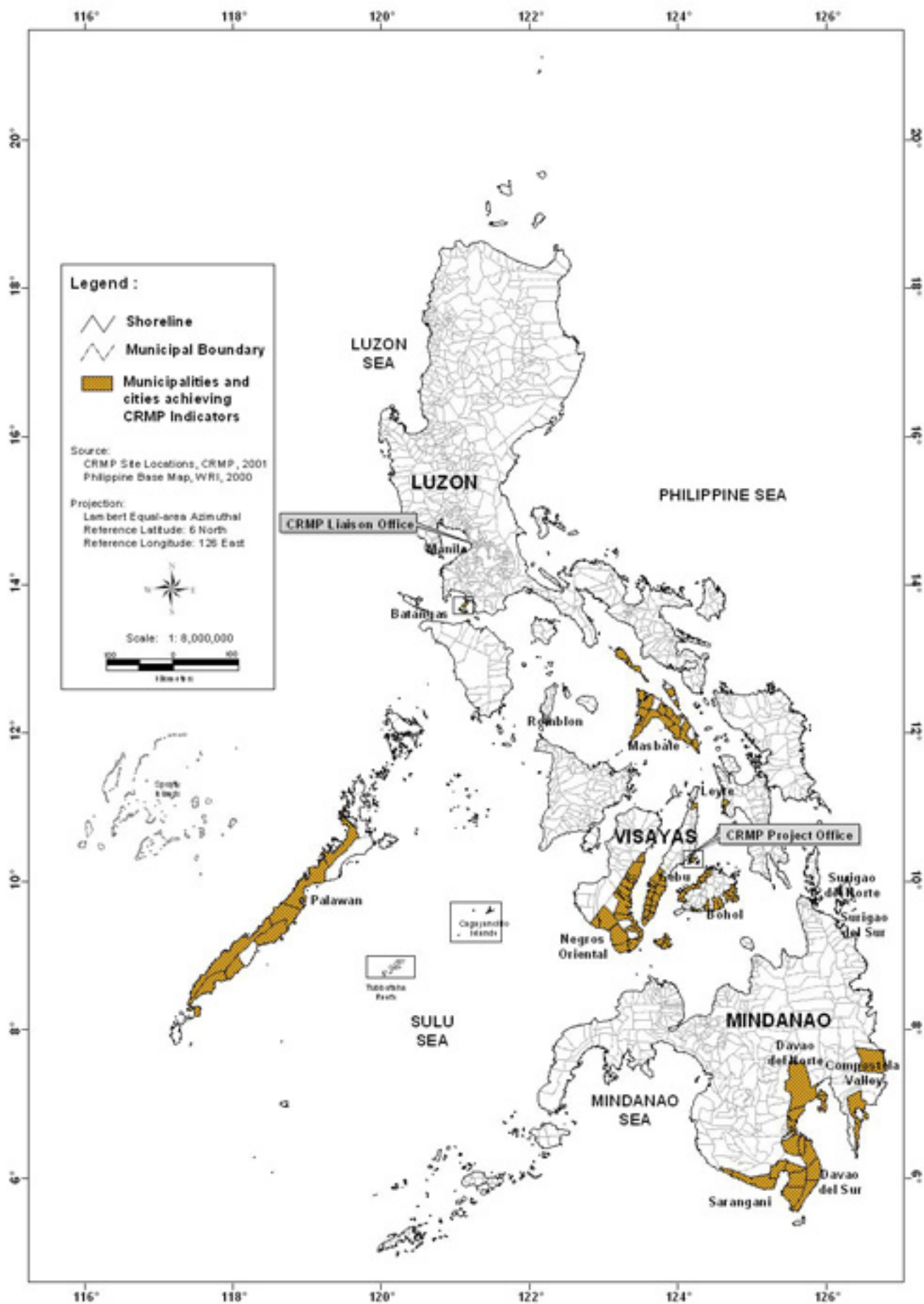
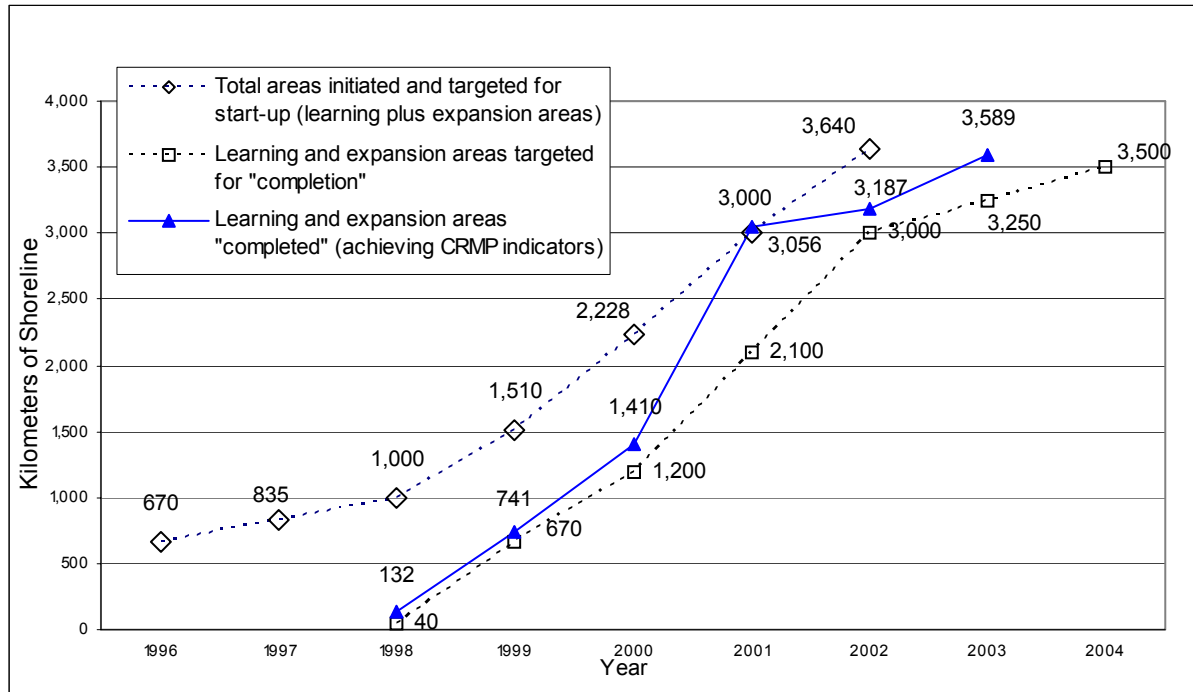


Figure 2.1. CRMP general location map (December 2003)





Starting from the six core Learning Areas composed of 29 coastal municipalities, by the end of 2002, CRMP had extended technical assistance to 113 LGUs covering 3,640 km of shoreline (Figure 2.1). Of these, 101 LGUs, representing 13% of all coastal LGUs in the Philippines and covering 3,187 km of shoreline (18% of the total Philippine shoreline), met all indicators for improved management of coastal resources (Figure 2.2). This achievement exceeded not only the target for 2002, but also the overall target of 3,000 km for the original 7-year term of the Project (Figure 2.3).



**Figure 2.3. "Completed" and targeted kilometers of shoreline (1996-2004)**

For the extension period 2002-2004, CRMP targeted more than 300 kms of shoreline, mainly in expansion areas in Regions 7 and 11, namely, Siquijor and Davao Oriental, thus achieving improved management along a total of 3,589 kms of shoreline for the entire life-of-project.

Expansion was facilitated through collaboration with other donor projects and institutions. Coastal provinces, in particular, proved to be effective and strategic conduits in the delivery of technical assistance in CRM to municipalities and cities. CRMP strengthened delivery of CRM as a basic service of eight provinces: Bohol, Cebu, Negros Oriental, Palawan, Davao del Sur, Davao Oriental, Sarangani, and Masbate. These provinces contributed immensely to CRMP's expansion in the second half of its implementation. Partnerships with the provincial government also paved the way for province-led CRM initiatives in Romblon and Surigao del Norte.

CRMP sought collaboration with other donor projects as a vehicle for expansion. In 1999, CRMP and the Fisheries Resource Management Project (FRMP) signed a memorandum of understanding (MOU) linking the two largest coastal projects in the Philippines. FRMP, a project of BFAR funded by the Asian Development Bank (ADB), adopted CRMP-developed products, including training modules on integrated coastal management (ICM), participatory coastal resource assessment (PCRA), mangrove management, and the 8-volume Philippine Coastal Resource Management Guidebook Series; IEC materials such as posters and pamphlets; and the Municipal Coastal Database (MCD) for use in 18 bays covering about 100 municipalities in the Philippines. A partnership with the Coastal Conservation and Education Foundation, Inc. (CCEF) included another 14 municipalities in Cebu and Siquijor provinces in the Project's coverage.

A collaborative arrangement was also made with the USAID-funded Governance and Local Democracy (GOLD) project that ended in December 2000. Cooperation with GOLD was particularly effective in the Provinces of Negros Oriental, Bohol, Aklan, Antique and Romblon.

Another cooperative agreement was made with the Southern Mindanao Integrated Coastal Zone Management Project (SMICZMP) supported by the Japanese Government. This cooperation primarily involved the use by SMICZMP of CRMP-developed training modules, IEC materials and the MCD, specifically in Davao del Sur and Sarangani Provinces, where both projects operated.

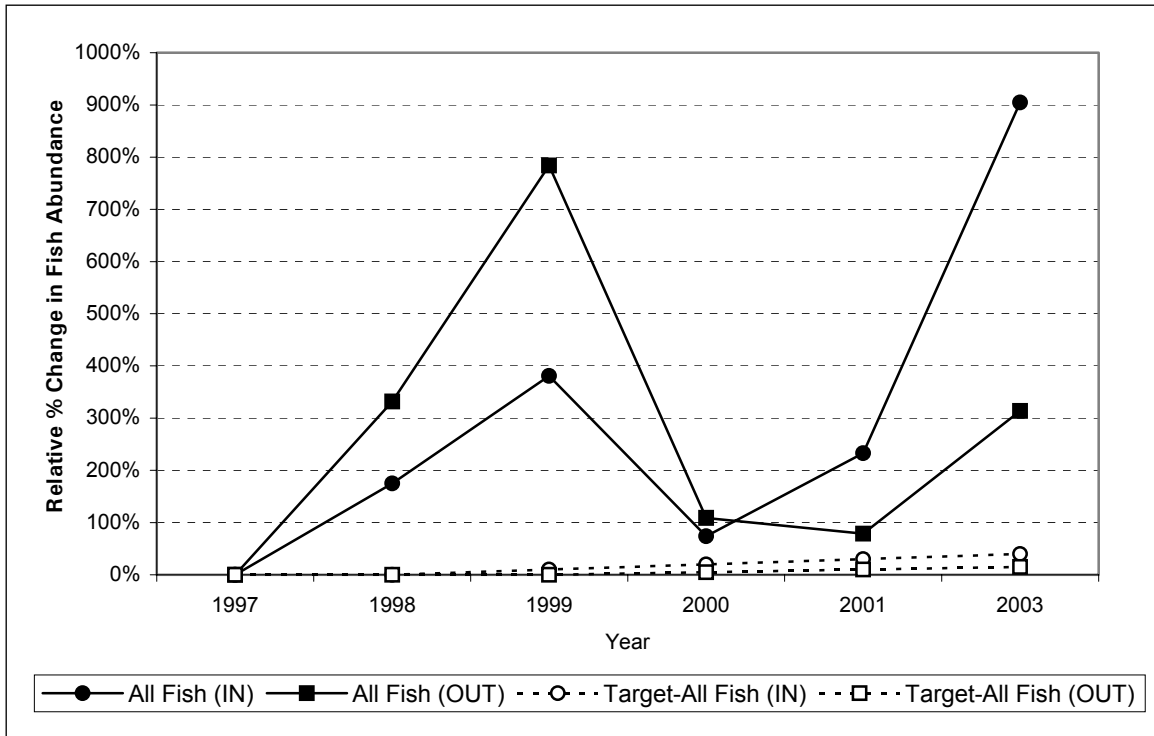
To enable CRMP and its partners to contribute to and report accomplishments under a common set of indicators, CRMP promoted the use of the MCD and M&E system that the Project developed based on its 1998 Results Framework (Figure 1.2).

***Biophysical changes—Percentage change of fish abundance and coral cover inside and adjacent to marine sanctuaries***

Biophysical impacts of improved local implementation of CRM were measured using standardized monitoring methods developed in partnership with the University of the Philippines-Marine Science Institute (UP-MSI). Annual assessments of fish abundance starting in 1997 focused on live coral cover and fish families commonly targeted for harvest. The assessments were conducted in six marine sanctuaries, with two sanctuaries monitored within the Bohol Learning Area, one sanctuary each in the Palawan, Sarangani, Negros Oriental and Cebu Learning Areas, and no sanctuary identified as appropriate in the Malalag Learning Area.

Surveys conducted in 1999 showed fish abundance increased 255% above the baseline inside marine sanctuaries, and 70% above the baseline adjacent to marine sanctuaries. The trend continued and in 2003, fish abundance had increased some 905% inside and 314% outside the sanctuaries, versus targets of 40% and 15%, respectively. These figures far exceeded targets for both periods. The high percentage changes reflected the success of the sanctuaries in relation to

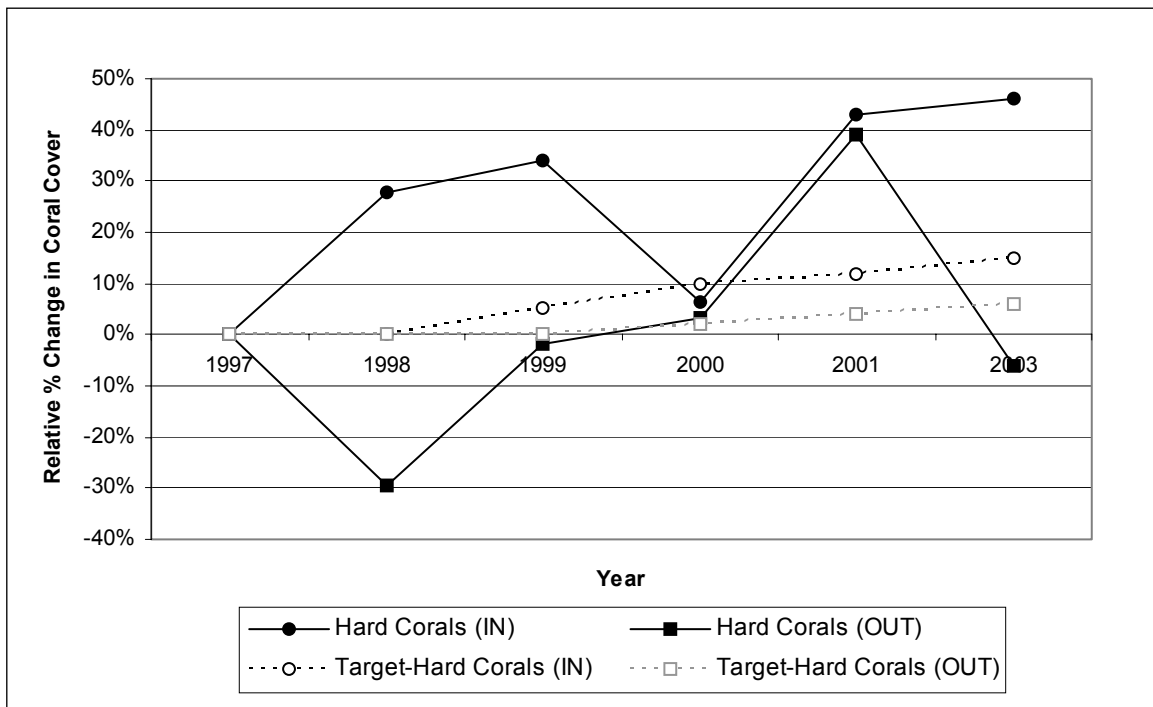
the relatively low baseline figures for fish populations due to the degraded and poorly managed condition of these sanctuaries during the baseline year (1997) (Figure 2.4).



**Figure 2.4 Average percent change in fish abundance (density) relative to baseline for six sites inside and outside marine sanctuaries (1997-2003)**

Results of the 1999 surveys (Figure 2.5) revealed that live hard coral cover inside marine sanctuaries increased 40% above the baseline (versus a target of 5%), but decreased to 7% below the baseline (versus a target of 0%) outside the sanctuaries.

By 2003, the areas surveyed had improved (Figure 2.5), with live hard coral cover at 46% above the baseline inside marine sanctuaries (versus a target of 12%) but decreasing to 6% below the baseline adjacent to marine sanctuaries (versus a target of 6%). The decrease in live coral cover outside sanctuaries may be attributed to record high tropical sea surface temperatures during the 1997-1998 El Niño event, which resulted in coral bleaching throughout the Philippines and the Indo-Pacific Region. In 1999 and 2000, unusually heavy rains also resulted in localized



**Figure 2.5 Average percent change in coral cover relative to baseline for six sites inside and outside marine sanctuaries (1997-2003)**

outbreaks of the coral-eating Crown-of-Thorns seastar, *Acanthaster*, that affected several of the reefs monitored. Years 2002 and 2003 were relatively normal and healthy for coral reefs, without any outstanding natural perturbations. In addition, the strength of management activities in marine sanctuaries monitored in CRMP Learning Areas increased with active community involvement, and this was reflected in the overall improved quality of the coral reef environment.

## Intermediate Result Indicators

### *IR 1.1. Improved local implementation of CRM*

**Annual budget allocated for CRM.** The number of LGUs allocating an annual budget for CRM and the amount of these allocations increased over the eight years of Project implementation (Figure 2.6). In 1995, the pre-Project baseline, only 10 out of 29 LGUs in the CRMP Learning Areas reported that they allocated an annual CRM budget. In 2003, all 29 Learning Area municipalities and 88 Expansion Area LGUs reported allocating such a budget. Overall, average budgets increased about 1,368% from the pre-Project baseline of Php 107,981 in 1995 to an average of Php 291,675 in 2002 (sample of 23 municipalities) and an average of Php 482,296 in 2003 (sample of 9 municipalities).

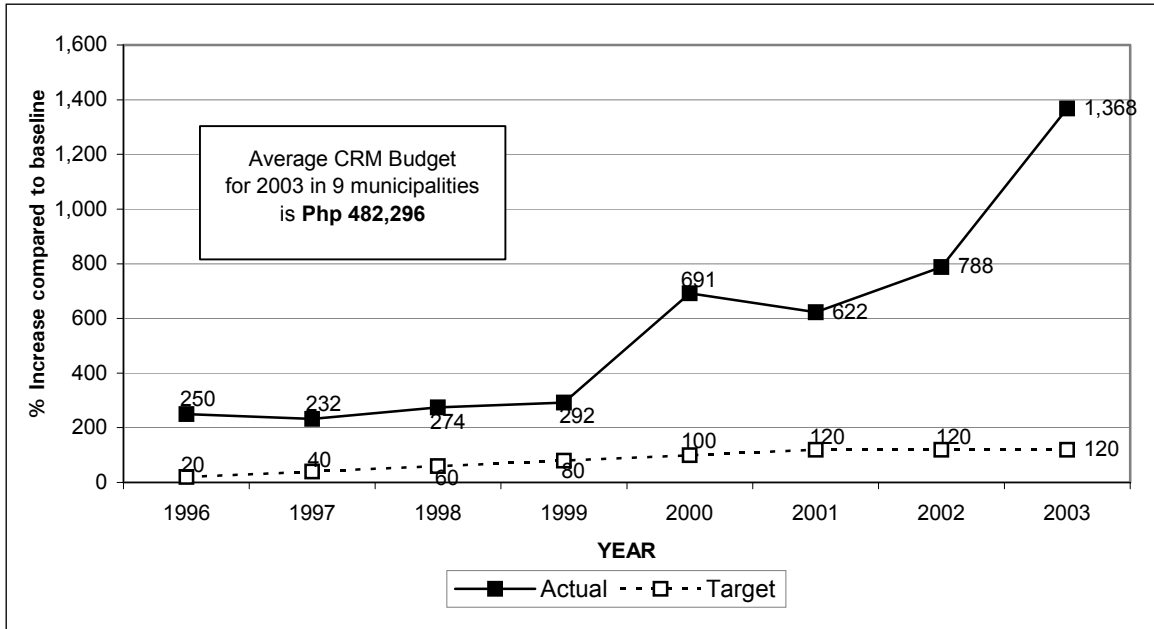


Fig. 2.6 Annual budget allocated for CRM in CRMP Learning Area LGUs (1996-2003)

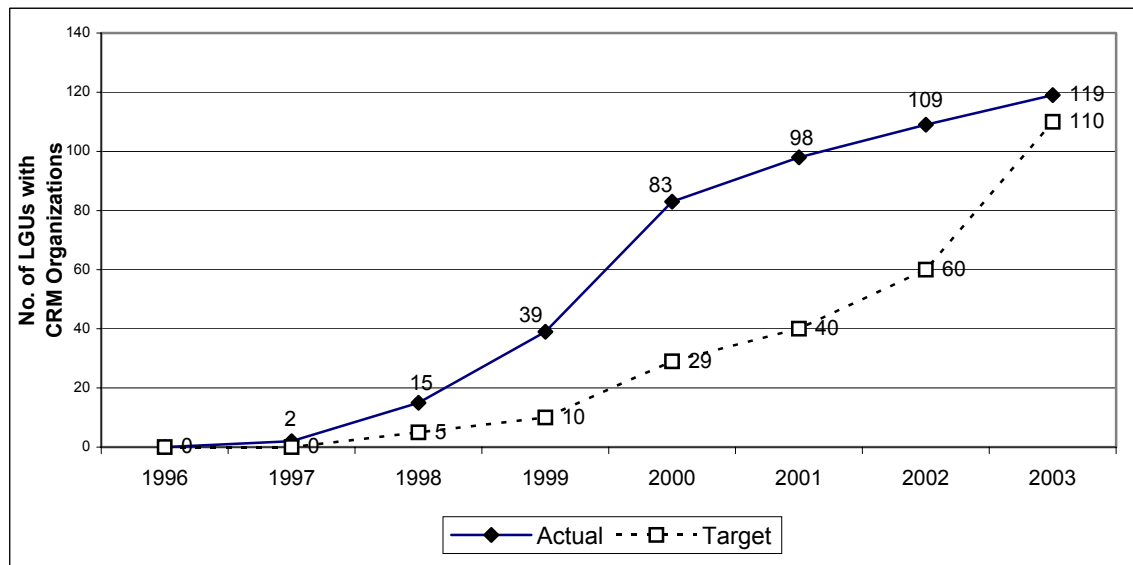


Figure 2.7 CRM organizations formed and active in CRMP Learning Area LGUs (1996-2003)

**Resource management organizations formed and active.** The project assisted in organizing or strengthening Municipal Fisheries and Aquatic Resource Management Councils (MFARMC) in all 29 Learning Area municipalities as well as in 90 Expansion Area LGUs. An MFARMC was considered active when it met formally at least 6 times a year (Figure 2.7). CRMP also assisted in organizing and strengthening *barangay*-level FARMCs (BFARMC) and *Bantay Dagat*, or coastal law enforcement groups.

**Best CRM practices are being implemented.** A total of 113 LGUs were implementing two or more CRM best practices by the end of 2003 (Figures 2.8 and 2.9). Some notable accomplishments:

- CRM plans, built on completed training courses and technical workshops, PCRA, and coastal environmental profiles, were adopted by most LGUs.
- From a pre-Project baseline of 26 marine sanctuaries covering 127 ha (many of which were not functional), the number of marine sanctuaries within the CRMP-assisted LGUs rose to 118, covering an area of more than 3,131 ha (not counting the 6,500-ha Port Barton Marine Park that includes open water areas) of coral reef and seagrass habitats (Figure 2.10). The Project assisted in strengthening the management of these protected areas through the development of supporting ordinances and management plans.
- Several environment-friendly and community-based coastal enterprises were established in 23 LGUs. These involved selected activities such as ecotourism and diving tourism, seaweed farming, and oyster culture and other forms of mariculture, and were supported by CRM planning, management guidelines and market linkages. Some examples:

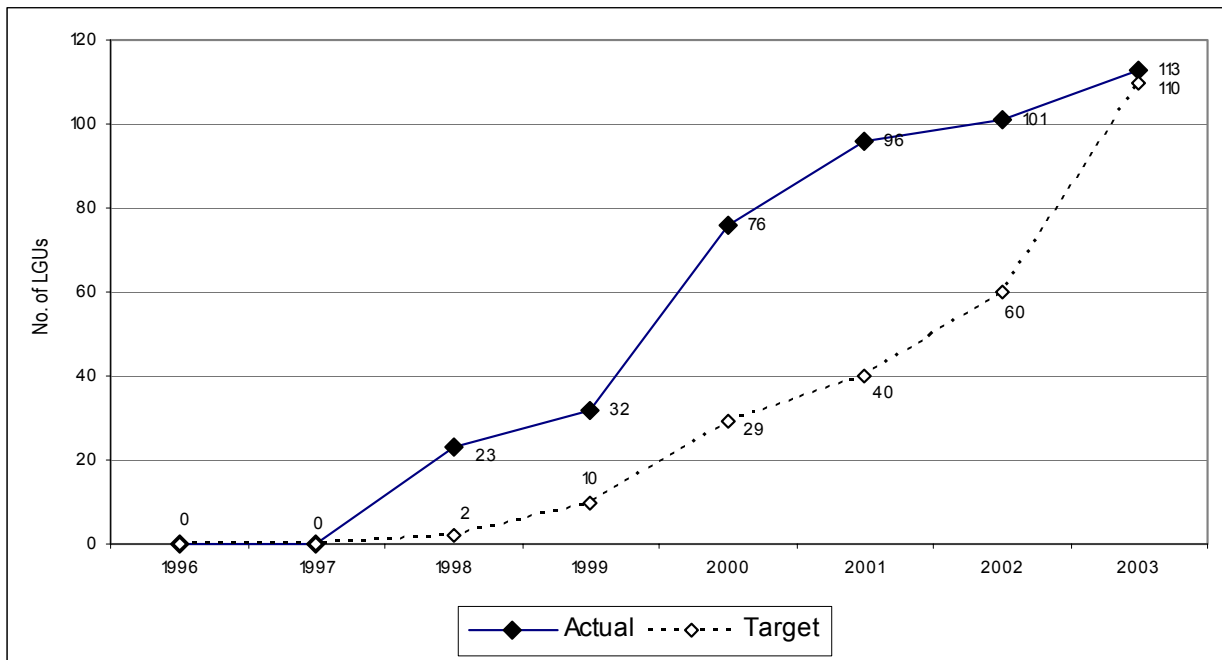


Figure 2.8 Number of LGUs implementing CRM best practices (1996-2003)

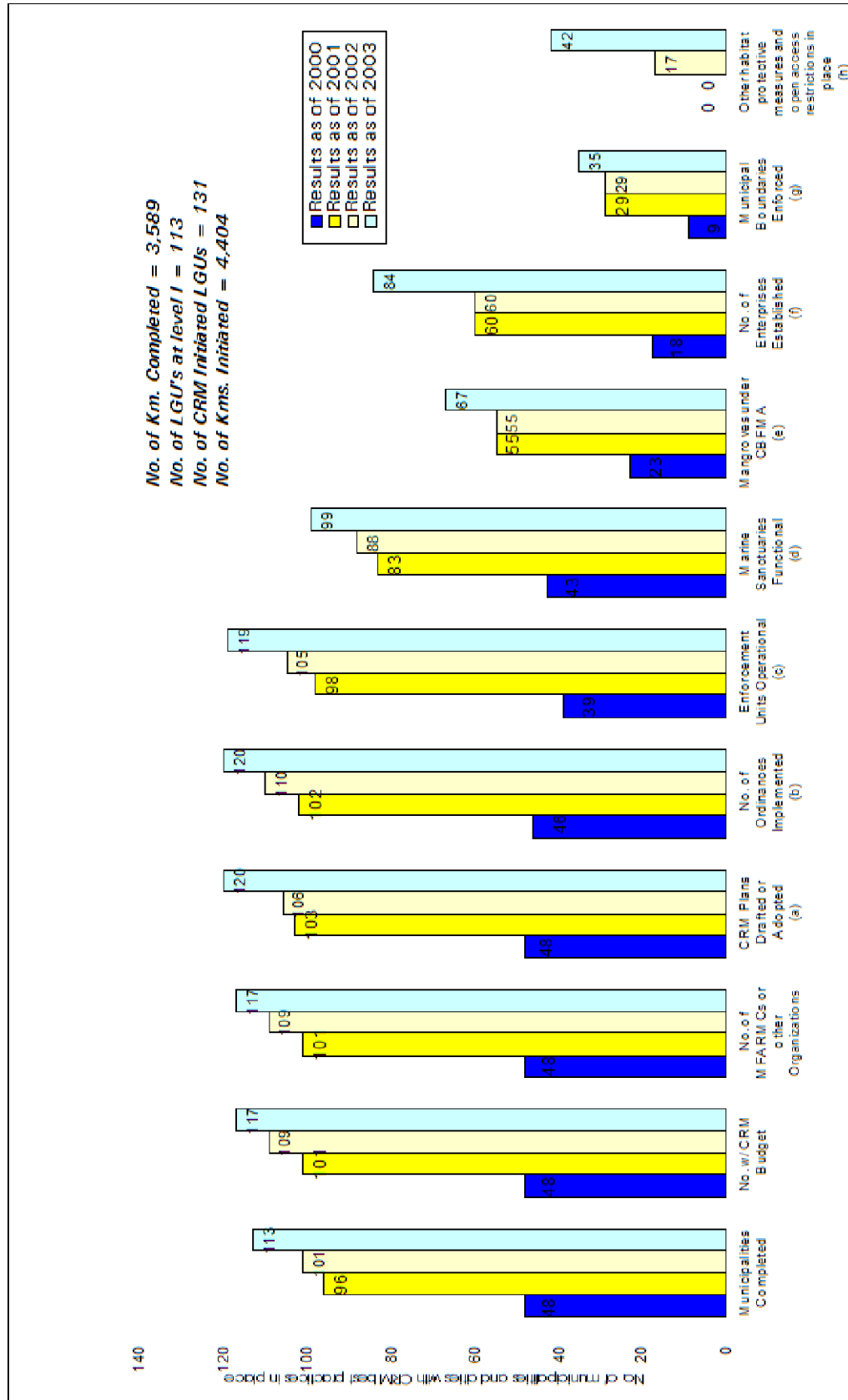
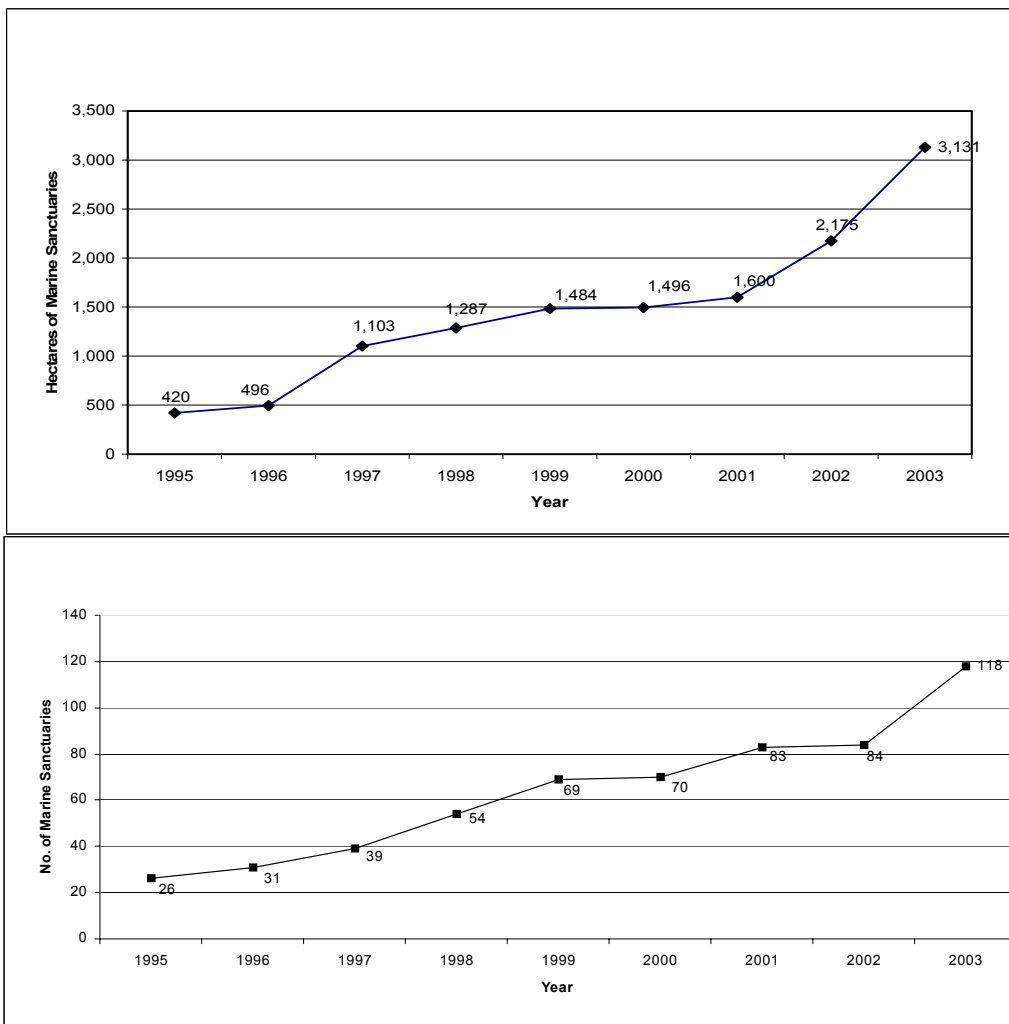


Figure 2.9. Status of CRM implementation in CRMP-assisted Learning and Expansion area LGUs (December 2003)



a. **Olango Birds and Seascape Tour (OBST).** A winner of a number of national and international awards, including a citation from Conservation International (2000) and the Best Environmental Experience Award from British Airways' Tourism for Tomorrow (2001), OBST is an ecotourism enterprise owned and operated by about 100 households residing adjacent to the Olango Island Wildlife Sanctuary (OIWS), a Ramsar site (a wetland of international importance). The community-based enterprise was developed with CRMP assistance in 1997 to encourage residents to promote the protection of the OIWS. It was turned over to the community and the LGU in 2001.



**Fig. 2.10 Number and area in hectares of marine sanctuaries in CRM-assisted LGUs (1996-2003)**

Note: The following MPAs, also assisted by CRMP, are not included in the area average because of their large sizes:

- Port Barton Marine Park – 6,500 ha
- Apo Island Protected Landscape and Seascape – 691.5 ha
- Tubbataha Reef National Marine Park – 33,200 ha
- Sarangani Seascape – 34,500 ha
- Talibon Group of Islands Protected Landscape and Seascape – 6,455.9 ha

- b. **Gilutongan Island Marine Sanctuary.** CRMP helped set up the fee-based management system for the sanctuary, which was attracting an increasing number of divers and swimmers. In 2003, the Municipality of Cordova, which manages the sanctuary, collected about Php2 million from visitors (each visitor was charged Php50 to enter the sanctuary). Revenues were distributed to the community and used for sanctuary management.
- c. **Cambuhat (Bohol) oyster culture.** The oyster culture enterprise, besides proving to be a valuable tool in catalyzing community and LGU initiatives to better manage and protect water and environmental quality of the Cambuhat River, was also an important component of the Cambuhat River and Village Tour, a community-based ecotour product that CRMP helped develop.
- d. Completed in March 2001, CRMP’s mangrove management component assisted in the processing and awarding of CBFMAs involving 9 people’s organizations (POs) benefiting 620 member households and covering more than 3,414 ha of mangrove area in Bohol (Figure 2.11). It also developed a guide for monitoring and evaluating CBFMAs, which is now being used by DENR as their primary tool for evaluating CBFMA performance.

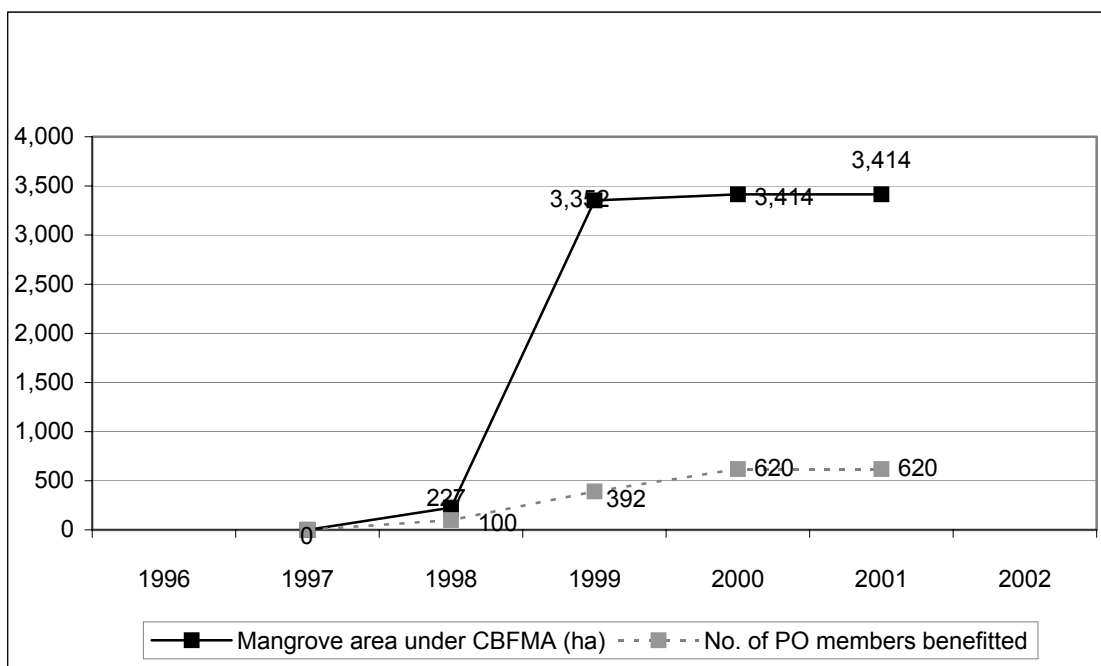


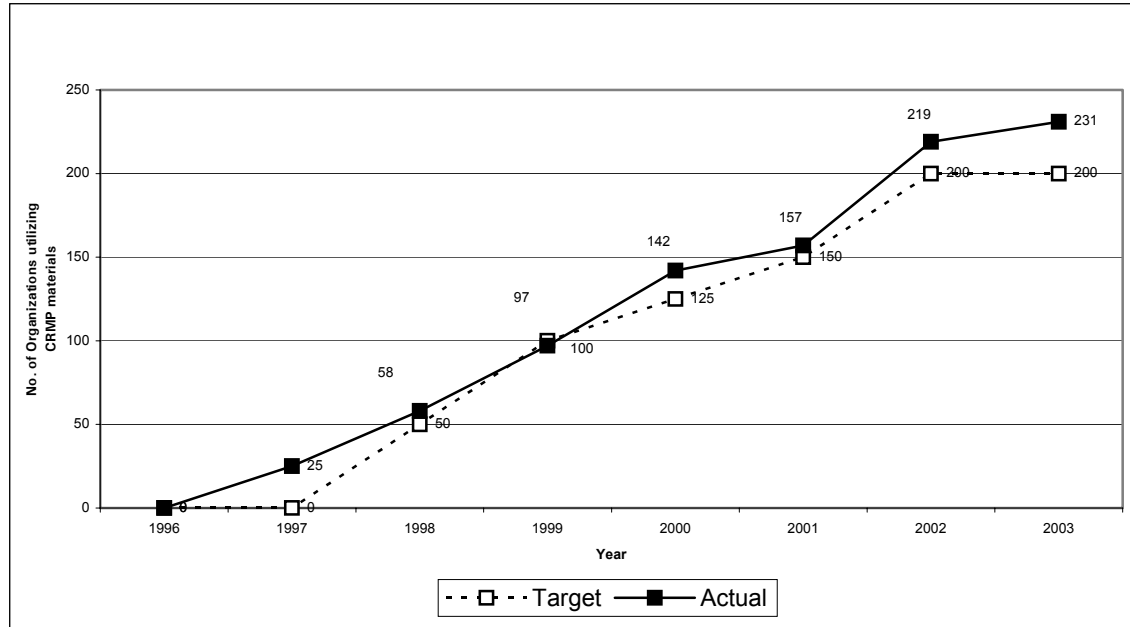
Figure 2.11 Mangrove area under community-based forest management agreement with people’s organizations assisted by CRMP (1997-2001)

## IR 1.2. Increased awareness of CRM problems and solutions

### *Widespread utilization of legal, jurisdictional, operational guides and training modules*

CRMP earned a reputation for developing state-of-the-art training and guidance materials. CRMP guides and training modules are now being utilized by 231 organizations, including 17 NGAs, 131 LGUs, 12 donor agencies and donor-assisted projects, 44 NGOs, 21 academic institutions, 4 people's organizations (POs), and 2 private sector organizations (Figure 2.12). Such widespread use was supported by strategically positioned information materials development and dissemination activities, including:

- Formal launching of the *Philippine Coastal Management Guidebook Series* at the LMP Convention in Manila in November 2001, and distribution to LGUs and NGAs through the Coastal and Marine Management Office (CMMO) of DENR.
- Launching and distribution of the *Sustainable Coastal Tourism Handbook for the Philippines* together with the Department of Tourism (DOT) and the DENR.
- Establishment of formal channels for national institutionalization of CRMP training materials with other donor-assisted projects, agencies and organizations, including the ADB-assisted Fisheries Resource Management Project (FRMP), which involves 18 bays and some 100 coastal LGUs, and SMICZMP, which operates in 20 LGUs.
- Publication of *Coral Reef Monitoring for Management* jointly with UP-MSI that presents reef survey and marine sanctuary monitoring methods for adoption nationwide by DENR, BFAR and other cooperating organizations as the national standard for all reef surveys and data management.
- Publication in booklet form of a project report and recommendations on “fish security” in the Philippines.
- Facilitation and coordination of the development and publication of *In Turbulent Seas: The status of Philippine Marine Fisheries*, a multi-agency, multi-institutional collaborative endeavor to organize and integrate in one volume scattered and fragmented data on the state of marine capture fisheries and implementation of fish management tools in the Philippines.
- Distribution of available publications on demand to various Philippine institutions and individuals.



**Figure 2.12 Widespread utilization of legal, jurisdictional, operation guides and training modules developed by CRMP (1996-2003)**

### *Public awareness of CRM issues*

Extensive surveys for this indicator were conducted in 1999 and 2000, and reported in 2000. These surveys showed that approximately 60% of fisher respondents demonstrated a high level of awareness and knowledge of current conditions, problems and solutions affecting coastal resources, a significant improvement achieved in just 4 years based on an estimated pre-Project low awareness level of less than 10% shown in surveys conducted by the Social Weather Station in 1995 (Social Weather Station 1997) and GreenCom Philippines in 1996 (GreenCom 1996). Key activities undertaken during CRMP's term to support public awareness of CRM issues included:

- **Comprehensive (both community-based and national) IEC program**, including the celebration of the International Year of the Ocean (IYO) in 1998 and May as the national Month of the Ocean every year since 1999, in collaboration with national and local partners.
- In partnership with the LMP and NGAs, CRMP supported the **design and conduct of the first Conference of Coastal Municipalities of the Philippines** attended by high-ranking national officials, led by the President, and 701 (90%) of all coastal municipal mayors.

- **Partnerships with national and local mass media groups** yielded more than US\$400,000 in leveraged media values. Joint production efforts with both government and private media companies, particularly ABS-CBN Foundation and the government's Philippine Information Agency (PIA) resulted in the nationwide airing of broadcast features and info plugs during the primetime showing of the country's highest rating programs. Total free airtime donated by the ABS-CBN network and PIA amounted to about Php15 million. Print media values generated at national and local level totaled about Php3.5 million.
- **Development and production of award-winning IEC programs and materials** including production and distribution of nearly half a million copies of publications and other IEC materials during the Project term. Industry awards received included the Philippine Web Awards' Most Outstanding Web Site for the Environment (1999) and the Public Relations Society of the Philippines' (PRSP) Anvil Award of Excellence (2000) for the Project web site, *oneocean.org*.
- Formation and deployment of a **national coalition-building effort to promote awareness of the issue of municipal water boundary delineation** to curb illegal commercial fishing within municipal waters.
- **IEC campaign aimed at increasing public awareness of the problem of overfishing and its proposed solutions.** Under CRMP's extension phase, a new component focused on fisheries management was established with three main deliverables: Develop a Philippine marine capture fisheries profile; produce and disseminate a booklet on "fish security" describing the state of Philippine fisheries and recommending management interventions; and formulate a multi-sectoral regional fisheries management framework plan for Region 7. The IEC campaign to support this component was undertaken in partnership with media groups such as ABS-CBN Foundation and GMA-7 and other partner institutions, including DENR, DA-BFAR, LGUs and various NGOs.
- **Development of "CRM Showcases" in Region 11, Region 12, Region 7, Palawan and Masbate** to promote awareness of successful LGU efforts to adopt CRM as a long-term development strategy and program, facilitate learning exchange and replication, and help sustain LGU and community support to CRM through constant affirmation by visitors of its success and benefits.

### **IR 1.3. Improved policy and legal framework**

#### *Harmonization of national policy for CRM*

The Project contributed to this indicator through the adoption of CRM guidance and training materials by key government agencies. These materials included the Philippine Coastal Management Guidebook Series, PCRA, mangrove management handbook, coral reef monitoring

guidebook, training modules, and methodologies, which were adopted by the DENR, BFAR and Department of the Interior and Local Government (DILG), as well as a number of donor agencies and donor-assisted projects.

The adoption of various CRMP guidance documents by relevant national agencies and projects provided a mechanism for these agencies and projects to harmonize and promote common policies, approaches and methodologies for CRM. By end-2003, the cumulative number of adoptions of CRM policies, guidance, and training modules reached 44, exceeding the Project target of 40 (Figure 2.13). In 2001, CRMP completed the draft National Coastal Resource Management Policy (NCRMP), which was formally turned over and accepted by DENR for national level consultations in 2002.

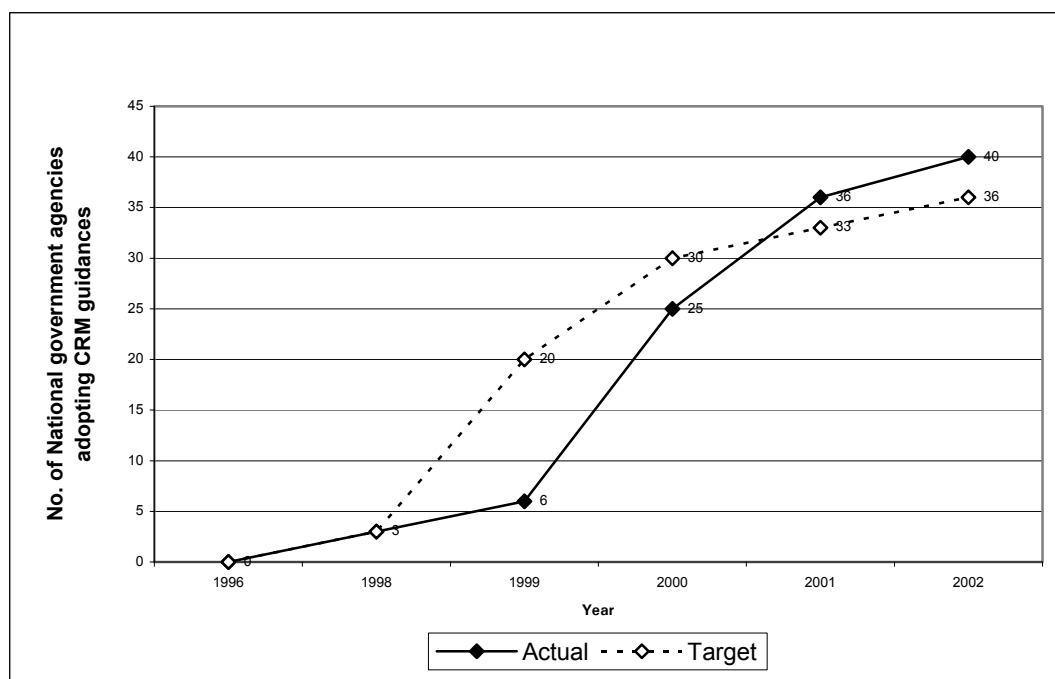


Figure 2.13 Harmonization of national CRM policy through national government adoption (1996-2002)

Other key accomplishments that contributed to IR1.3 included:

- Policy study and standard procedures for delineating municipal water boundaries.** Developed in partnership with the National Mapping Resource and Information Authority (NAMRIA) and FRMP of the DA, the procedures prescribed by this study were adopted in June 2001 by NAMRIA through DENR Administrative Order 2001-17 (DAO 2001-17), which started the process of delineation and delimitation of the municipal waters in the Philippines.
- Policy study comparing areas of conflict and divergence between the Fisheries Code and the Agriculture and Fisheries Modernization Act (AFMA).** This can help

- improve the implementing rules and regulations of these two laws to reduce current conflicts in field-level implementation.
- **Policy study and Draft Joint Administrative Order (JAO) articulating the roles of DENR and BFAR in the implementation of the Fisheries Code for their review and approval.** The JAO served to clarify the role and responsibilities of DENR and DA in implementing Republic Act No. 8550, or the Philippine Fisheries Code of 1998.
  - **A Crowded Shoreline: A Review of the Philippines' Foreshore and Shore Land Management Policies.** This study conducted jointly with the Land Management Bureau (LMB) of DENR reviewed existing laws and compared these with actual field implementation practices through a survey of foreshore management in southern Cebu Province. The study highlighted the need for revision of foreshore land management policies and field practices.
  - **Development and adoption of DAO 2001-17** defining the technical guidelines on the delineation and delimitation of municipal waters through multi-sectoral technical working groups and public consultations. DAO 2001-17 was opposed heavily by commercial fishing groups and subsequently revoked by DENR following an opinion issued by the Department of Justice (DOJ) in November 2002 saying the DA, and not DENR, had the authority to issue the guidelines. The DAO, however, served as the basis for the formulation of a new set of guidelines by DA.
  - **Creation and formal establishment of the CMMO within DENR.** Developed in partnership with the CEP of DENR, the CMMO was designed to address the institutional and human resource development needs of CEP and institutionalize the functions of CEP and CRMP in DENR in a major program that builds on the CRMP Results Framework (Fig. 1.4) and approaches. The CMMO became significantly stronger during 2003 and 2004, when many local and national personnel were trained and permanent national staff rose to 10. It was also assured of being maintained as an autonomous office under the Secretary of DENR so that its key functions of coordination with DENR and among partner agencies and with LGUs could be maintained and strengthened.
  - **Publication of *Philippine Fisheries in Crisis—A Framework for Management*,** which lays down the current state of fisheries in the country and the way forward for management at the local level, and explains what overfishing is and why the country's stocks are overfished.
  - In cooperation with BFAR-7 Fisheries and Resource Management Division, **publication of *The Fisheries of Central Visayas, Philippines: Status and Trends*** that includes the provinces of Bohol, Siquijor, Negros Oriental and Cebu, and key stakeholders from both the municipal and commercial fishing sectors.

- **Publication of *In Turbulent Seas: The Status of Philippine Marine Fisheries***, a sourcebook documenting the state of Philippine fisheries and industries, and examining the implementation of fisheries management in the country, with case studies to illustrate current conditions and issues in fisheries management.
- **Assistance to BFAR National Fisheries, Research and Development Institute to consolidate and finalize the National Stock Assessment Project data** at each regional level in order to form a base of information on which fisheries management could be implemented.
- **MOA launching the Police Environment Desk Officer (PEDO) operation nationwide** with support from DENR for training and legal support

### **Beyond Project Targets**

By end-2003, CRMP contributed, based on its results framework (Figs 1.2, 1.4), more than the national government's target of 3,000 km of coastline under improved management under its Medium-Term Philippine Development Plan (MTPDP) for 2001-2004. Although significant, it does not represent the sum total of the body of knowledge and experiences that accumulated during the life of CRMP. More important than the kilometers measured is the manner by which CRMP achieved the goal, and the many lessons learned along the way. The process is highlighted in Chapters 3 and 4.

In 2000, CRMP released a Special Mid-term Report called *CRMP in Mid-Stream: On Course to a Threshold of Sustained Coastal Management in the Philippines*, which described the first three-and-a-half years of implementation of the Project. Then in 2003, CRMP produced a book: *Modeling the Way: Lessons in Developing Capacities for Coastal Management in the Philippines*. These two publications document well the process utilized by CRMP and the milestones achieved. They also provide insights about the CRMP design, operational and results frameworks and lessons learned. And, as in this completion report, they analyze what worked and what could have been done better, and describe crucial "next steps" that should be taken to ensure the full and optimum development of CRM in the Philippines.



## Chapter 3

# Technical Assistance at National and Local Levels

*The technical assistance is expected to enable local governments to accept and act on the responsibilities and authorities delegated to them by the 1991 Local Government Code to assist communities protect and manage their coastal resources. (USAID 1995)*

*The key to a sustainable approach to coastal resources management lies within the overall political, economic and social institution of the concerned communities... The Project purpose is to achieve effective in-country capacity and efficient incentive system for increased and continuing public and private sector investment to support replication and sustainability. (USAID 1995)*

In the early stages of CRMP, a decision was made to make operational the Project mission using a two-pronged approach to address issues simultaneously at the national and local levels. This decision was prompted by the realization that, while local implementation is the primary and ultimate requirement for success in any resource management initiative, higher-level interventions are needed to achieve the desired spread, sustainability and streamlining of CRM services. The first consideration – spread – was a programmatic requirement related to the strategic objective of 3,000 km of shoreline under improved management by 2002. Because the Learning Areas had a combined total of only 670 km of shoreline, not even one-fourth of the target, CRMP needed to expand to other areas to achieve the 3,000 km. This was more than a local level implementation issue.

This chapter discusses CRMP's national and local level interventions and approaches, and highlights some of their key accomplishments.

National and local interventions had essentially different focuses – national activities centered on policy and legal development, national institution building and coordination, and setting the framework to encourage LGUs to partake in CRM, while local level activities directly assisted and capacitated specific LGUs in CRM planning and implementation. But there were considerable overlaps, since there was a conscious effort to implement the activities so that national and local efforts complemented, supported and benefited each other.

*IR 1.2 [(Increased awareness of CRM problems and solutions (1998-2002) or Increased awareness of overfishing problems and proposed solutions (2002-2004)] and IR 1.3 [(Improved policy and legal framework (1998-2002) or Improved policy and institutional framework for*

*CRM and fisheries (2002-2004)*] were mostly national in scope and measured by indicators that involved either national level activities or those with groups of LGUs. The actual results for *IR 1.2* and *IR 1.3* are shown in Chapter 2; here the process and means of achieving these results are elaborated.

### **National Implementation Objectives and Indicators**

The main thrust of the national implementation was to promote improved national policies and laws on CRM and increased awareness of CRM problems and solutions. Specifically, the national level program worked towards:

- Formulating a national policy framework to harmonize and align existing coastal management policies.
- Undertaking policy initiatives that promoted CRM as a basic service of LGUs.
- Institutionalizing CRM at the national level to provide sustained technical assistance to local governments.
- Implementing IEC and advocacy programs at the national level for the adoption of proposed policies and to support local CRM implementation

The results of the national implementation were measured using the following indicators; a) National CRM framework adopted, b) policy studies drafted and adopted, b) CRM at the national level institutionalized, c) awareness of CRM problems and solutions increased.

### ***Policy and Institutional Development***

The policy and institutional development component focused on promoting national policies that would improve CRM nationwide and strengthening national institutional support to mainstream CRM as a basic service of LGUs. This component evolved through the years as new policy directions emerged at the national level, and as policy and institutional gaps at both national and local levels became more apparent.

**Approach and Activities.** At the outset, policy work focused on, among others, assisting in the formulation of a policy framework for CRM, undertaking policy studies to support ongoing amendments to the Local Government Code and institutionalize CRM best practices, and pursuing initiatives to clarify the roles and responsibilities of BFAR and DENR in the implementation of the Fisheries Code and AFMA. The policy component also pursued the networking of CRM champions and advocates through, among other arrangements, training agreements and collaboration in publishing the *Philippine Coastal Management Guidebook*

*Series.* These themes became the building blocks for the subsequent institutional development program carried out for the DENR and other agencies.

One of the policy initiatives that provided a platform for institutional reform was the adoption of DAO 2002-08 creating the CMMO. The institutional development program of CMMO centered on strengthening the capabilities of the Office as technical assistance provider to sustain local CRM initiatives, and promoting national policies that would help improve CRM nationwide. CRMP assisted CMMO in developing its policy agenda to harmonize conflicting CRM-related issuances within the DENR. It also helped the office prepare for the ADB-supported Integrated Coastal Resource Management Project (ICRMP), institute mechanisms to coordinate other coastal and marine-related projects of the DENR, improve its delivery of CRM technical assistance to LGUs, and install an information management system to facilitate the processing and storage of local implementation data.

As a matter of strategy, CRMP worked with and through existing structures and systems to optimize the uptake of interventions. Insofar as policy work was concerned, the Project was cognizant of the urgency and strategic importance of adopting a national CRM policy framework to harmonize apparently conflicting jurisdictions of various agencies and institutionalize CRM as a basic LGU service. Other policy studies were pursued in response to the pressing issues that emerged as local implementation progressed, such as those related to mangrove management, foreshore management, municipal water delineation, and jurisdictional conflicts of government agencies (LGUs, BFAR and DENR) brought about by the enactment of new laws.

CRMP through the Silliman University's Legal Environmental Advocacy Program (LEAP) organized the Programs and Policy Advocacy Group (PPAG) composed of key government officials, private sector representatives and other stakeholders. The PPAG was the avenue by which policy concerns were ventilated through workshops, round table discussions and other similar interactive means. Policy papers such as proposed amendments to the LGC and other laws, the proposed NCRMP, and the similar policy documents resulted from these forums.

The Project considered institutional development as a key sustainability factor of its interventions, both at the local and national levels. The strategies employed for institutional development included training and capacity building, policy advocacy and structural reforms. While training programs served as the primary means of carrying out institutional development interventions, follow-up activities were equally important, and in some cases even more valuable, in terms of effecting changes in institutional policies, systems and procedures, and utilizing the knowledge and skills gained by the institution from various training exercises.

At the local level, institutional development was guided by the Project's results framework. A package of training and technical assistance was designed and carried out with the

LGUs (provinces and municipalities/cities), donor-assisted projects, NGOs and other local stakeholders. The primary consideration was to contribute to Project results in the short term and institutionalize the system in the long term while initiating a strategic spread to other areas not covered by CRMP. The capacity-building program focused on the following areas of concern: public education and awareness, ICM, PCRA and CRM planning, mangrove management, MPA establishment, coastal tourism, coastal law enforcement, CRM M&E, and MCD.

The Project applied lessons learned from local implementation to establish and make operational the CMMO. CMMO was organized primarily to serve as a means of training and technical assistance for local implementation, and policy support and direction for national level CRM. The institutional development process for CMMO largely followed an iterative cycle of assessment, implementation of interventions and evaluation.

**Results and Lessons.** In addition to the results discussed in Chapter 2, the following key results were generated by institutional development interventions at the national and local levels:

- **Legal and Jurisdictional Guidebook for CRM in the Philippines, 1997.** This pioneering publication clarified the national legal framework for CRM and catalyzed local implementation. The *Guidebook* was endorsed by the Secretaries of DENR, DA, and DILG and launched by President Fidel V. Ramos at the National Convention of the LMP in 1998.
- **Legal Arsenal for CRM Workshop, 1998.** Conducted in partnership with the Philippine Supreme Court, this activity was attended by senior-level practitioners, law enforcement officials and members of the judiciary.
- **Formulation of the coastal and marine sector thrust and targets in the MTPDP, 1999.** The plan embraced CRMP's results framework that highlighted the role of the LGU in improving CRM in the country, targeting "integrated coastal management adopted by 250 LGUs covering 3,000 km of shoreline for the improved management of municipal waters by the year 2004."
- **Adoption by the LMP of the Advocacy Policy in Support of the Enforcement of Municipal Waters, 1999.** An offshoot of the close collaboration between the League and the Project, this advocacy policy initiated LMP's involvement in discussions on issues related to the delineation of municipal waters.
- **Mainstreaming of the coastal and marine sector in DENR's organizational and planning structure, 2000-2002.** This key Project objective was achieved mainly through the reformulation and revision of key results areas and indicators [known as programs, projects and activities (PPA) and unit of work measurements (UWMs)] for the coastal and marine

sector to align them with the mandate of CMMO. With the CMMO and DENR’s planning service, a plan document was drafted in 2002 and presented to the Coastal and Marine Management Division (CMMD) chiefs and regional planning staff during the regional orientation conducted nationwide.

- Formulation of the CMMO logframe, 2002.** The logframe detailed outputs, activities and corresponding indicators as a parallel initiative to the department-wide formulation and refinement of indicators of DENR’s 5 major final outputs. The draft revised key results areas and indicators of CMMO were translated into a logframe format, 5-year strategic action program and 2003 operational plan. The CMMO logframe, key results areas and indicators were endorsed and adopted by CMMO staff, CMMD chiefs and representatives from the DENR bureaus and offices in the central office in 2002 during a strategic planning workshop. The logframe was adopted as basis for the 2003 work and financial planning workshop, an activity conducted for the coastal and marine sector before the 2003 reprogramming.
- Building CMMO capabilities as technical assistance provider in CRM, 2000-2003.** This result was achieved mainly through the provision of intensive field-based ICM training and hands-on coaching and mentoring assistance. The ICM training was designed to equip CMMD and Coastal and Marine Management Service (CMMS) with skills in assisting LGUs to initiate and implement CRM. Participants were exposed to the conceptual and practical aspects of CRM, such as PCRA, preparation of municipal coastal profile and CRM plan, application of CRM options/tools, M&E, and operation and maintenance of the MCD. All the subject areas were purposely selected and exercises carefully designed to directly respond to CMMO’s key results areas and indicators. Table 3.1 shows the distribution of CMMO participants in the ICM training course.

**Table 3.1: Number of DENR-CMMO personnel who participated in the ICM training**

Region	No. of Participants	Region	No. of Participants
1	16	9	14
2	18	10	22
3	21	11	30
4a	7	12	10
4b	27	13 (CARAGA)	25
5	18	NCR	5
6	-	ARMM	20
7	17	Central Office	4
8	12	<b>TOTAL</b>	<b>266</b>

- **Series of workshops to draw up a coastal and marine management policy agenda for CMMO to initiate in coordination with other bureaus of the department, 2003.** These policy forums covered issues related to foreshore management and national MPAs (NIPAS-declared MPAs) and yielded policy recommendations on foreshore management and inputs to IEC materials developed by CMMO.
- **Strategic and high-impact IEC program, 2003.** To capacitate CMMO in IEC, the Project assisted the Office in conceptualizing and organizing IEC events and materials, including the CMMO-CRMP exhibits for the Second International Tropical Marine Ecosystems Management Symposium (ITMEMS2) and National LMP Conference, CMMO brochure, coastal habitat pamphlets, mangroves Q&A, and foreshore management pamphlet.
- **Distribution and installation of the MCD in all CMMDs, 2003.** A total of 230 records of LGUs covering 10 regions nationwide were completed and stored in the national MCD. The Project also assisted CMMO-central office in the collation of data and maintenance of a system that would manage future data transmittals from the regions.
- **Increased demand for CMMO, 2002-2003.** The Project fostered demand from LGUs for CMMO services through the promotion of the Office in the LMP and in a series of public forums for CEP-recipient municipalities sponsored by the Natural Resources Management Program (NRMP).
- **Sustained management support for CMMO.** During the first year, support for CMMO's institutionalization was not consistent, as the DENR considered other proposals that recommended, for example, subsuming the coastal and marine sector under integrated water resource management, or institutionalizing CMMO under the Protected Areas and Wildlife Bureau (PAWB), at both the regional and national levels. A number of meetings were held and position papers were submitted to clarify the intent of CMMO to support the CRM initiatives of LGUs. In 2002, results of the CRMP end-of-project evaluation conducted by a composite team of DENR personnel were presented to the directors and representatives of DENR bureaus and CMMD chiefs to promote awareness and appreciation of DENR's CRM initiatives and seek support for the full establishment and institutionalization of CMMO. These strategic activities yielded opportunities for DENR's middle-level management to understand their department's coastal and marine experiences and thrust.

These policy and institutional development initiatives generated the following valuable lessons:

- **Resistance must be anticipated and addressed.** Policy and institutional reforms and other efforts that bring about radical changes are often met with resistance from those who benefit

from the *status quo*, or those who fear they would be worse off if reforms were instituted, or those who simply do not see the need for change. Although considered a major concern of DENR, at the outset, before CMMO could even put into operation its new mandate as technical assistance provider of LGUs, the Office was constrained by a number of counter-proposals, such as its integration in water resources management and later in protected area management. This interrupted the institutional development process at a critical time, when CMMO was groping to translate its mandate into operational plans, organizational structure and human resource training and capacity building. To build support for CMMO within DENR, the Project worked directly with regional DENR offices to set up their CMMDs. Being more closely involved in assisting LGUs in local level CRM, regional DENR technical staff were more responsive to CRMP's retooling efforts to build their capacity as technical assistance providers. Support for the CMMO grew from the ground up, and soon infected national decision-makers.

- **Big or small, efforts to initiate institutional reforms must take a holistic view of the entire government service.** In planning and organizing the CMMO, the Project had to consider an ongoing reengineering of the DENR's planning system, a requirement of the National Economic and Development Authority (NEDA) and Department of Budget Management (DBM). This parallel initiative at a higher level, if not understood and considered, would have tremendously affected the key results areas and indicators of CMMO. Working through the planning and M&E system of DENR and other concerned agencies helped expedite the uptake of institutional development interventions, particularly structural reforms.
- **Nurture champions and advocates to push policy and institutional reforms.** Advocacy for the successful adoption of DAO 2001-17 was driven by stakeholders who championed the cause. Key personnel at all levels of DENR helped move forward the establishment of the CMMO and its operations.

Put together, these interventions and lessons resulted in significant changes to the overall policy and institutional landscape for CRM in the Philippines. Even so, one major challenge requiring urgent attention by the Philippine government remains: the adoption of the NCRMP Framework. Recognizing its primordial importance, CRMP over the last five years vigorously supported the drafting of the NCRMP Framework and pushed for its adoption. Although CRMP was supported by LMP and other major coastal stakeholders in this endeavor, the policy paper remains a draft document and has been subsumed under another draft policy document known as Philippine Archipelagic Development Framework. While policy adoption moves painstakingly slowly, coastal resource degradation and exploitation are rapidly accelerating. Salient points of the NCRMP are discussed in Chapter 5.

### *Information, Education and Communication (IEC)*

The IEC Component was primarily tasked to achieve *IR 1.2 (Increased awareness of CRM problems and solutions)*, as well as support the Project objective of spread and sustainability. A major challenge was how to create the critical mass needed to expand CRMP influence to 3,000 km of shoreline. Where IEC was concerned, lessons learned from past CRM/environmental projects illustrated the limitations of traditional IEC in scaling up resource management programs, while at the same time promoting specific behavioral changes. The need to promote the strategic spread of CRM while achieving specific behavioral targets prompted CRMP to formulate an IEC framework and strategy that veered away from the more conventional IEC linear modalities to one that was more systemic, normative, process-oriented, synergy-driven and strategic in its approaches. It was decided early on in the Project that given the complexities of environmental programs, the IEC Component would adopt a wider, more comprehensive and holistic paradigm in its operational and substantive aspects. It was envisioned that IEC would aggressively promote CRM in the country's national agenda and substantially contribute to the development of a policy and public environment conducive to its implementation.

**Approach and activities.** Primarily advocacy-oriented, the Project's IEC activities were anchored on the following premises and guiding principles:

- For CRM to happen, there must be a generalized belief regarding the true state of ongoing coastal and marine degradation and declining fish catch;
- Arresting or reversing environmental degradation and fisheries decline requires challenging the *status quo* in existing management orientations and social norms in fisheries;
- No amount of national policies and laws will reverse environmental decline without a transformation or change in people's mindset, attitudes and behavior;
- IEC must enable CRM stakeholders and decision makers not only to know, but also to want and make the desired change;
- IEC efforts must result in a broader constituency for CRM through the development of a critical mass of advocates, coalition-building, institutional and network development and engaging the general public;
- National and local level IEC must be conducted simultaneously;
- There is a need to comprehensively document experiences and "lessons learned" to provide new projects an important source of information to improve CRM modalities;
- Leadership initiatives and best practices in CRM must be supported and reinforced by training, capacity building, learning by doing and showcasing.



CRMP's IEC activities integrated the major communication approaches to development undertakings [(social marketing, community mobilization, institutionalization, development support communications (DSC)], and showcasing. They were designed and planned to seek partnerships and alliances to enhance institutional (network) development. The Project recognized the role of leadership and the critical mass and incorporated the elements of literacy, ethics, action and advocacy as central elements of its IEC paradigm. Its wide-ranging IEC activities aimed not just for specific behavioral targets and the promotion of CRM best practices, but also for the initiation of social processes. Through deliberate and purposive partnerships as well as by engaging public and private sectors' involvement in the activities, a broader constituency for CRM was established.

Social marketing, social mobilization and DSC for agenda-setting purposes characterized the IEC approaches at the national level, while strategic participatory communications and subsequently showcasing to promote CRM best practices and behavioral change were the primary strategies at the local level.

Supporting the Project view that for CRM to get anywhere as a sustainable development strategy in the Philippines, marine and coastal issues must first be perceived as priority problems needing attention and action by both national and local government and the bigger sectors of society, the initial IEC task was to draw national attention to marine and coastal issues and engage the general public so that these issues were perceived as urgent problems requiring national attention and solutions.

Through extensive use of mass media, "state of the art" publications, public forums, linkages with public and private sector organizations and special events, CRMP actively promoted and enhanced national awareness and knowledge of CRM. IEC materials and messages focused on establishing the true condition of coastal and marine resources in the country and sought to demystify the traditional beliefs that: 1) coastal and marine resources are limitless; 2) fisheries production can be increased by more efficient gear and technology; 3) the current open access regime can continue; 4) marine and coastal issues/problems are primarily the problems of fishers and coastal communities; and 5) fish can be harvested from the sea without limit.

The Project's IEC messages focused on how to address these issues, and its advocacy centered on the following overarching messages: 1) stop illegal and destructive fishing; 2) reduce fishing effort to sustainable levels; 3) protect and manage coastal habitats; 4) organize functional resource organizations at the community level; and 5) reserve the use of municipal waters for municipal fishers. In addition, CRMP encouraged LGUs to adopt CRM as a basic service in their municipalities, and established CRM benchmarks and best practices that would constitute this basic service.

To achieve the greatest impact in the shortest amount of time, CRMP selected and designed IEC activities that were strategic and meant to achieve multiple objectives. The activities were framed along popular themes, and timed to coincide with international, national or local events such as the International Year of the Ocean in 1998, Annual International Coastal Cleanup Day in September, Month of the Ocean in May, Earth Day in April, Environment Month in June, Fish Conservation Week in October, etc. They were designed and implemented to generate optimum media and public participation.

Social marketing techniques characterized IEC activities at the national level and involved tri-media (radio, TV, print) approaches. At the local level, social marketing was complemented by social mobilization processes to provide opportunities for building alliances and networks. Efforts were made to converge national with local level activities to allow the interaction of national leaders with local leaders and national media with local media. A rule of thumb was the aggressive solicitation of mass media coverage and business sector support. While partnerships were strategic, emphasis was also placed on the inclusive nature of IEC activities where anyone and everyone who wanted to be involved were encouraged and accepted.

In addition, although the intention was to be inclusive and to engage as many sectors as possible, logistical limitations dictated that IEC targeted specific key players – national policy/decision makers, LGUs, media, business sector, educational institutions and like-minded environmental groups — with the end-view of developing a critical mass of CRM leaders and advocates.

Agenda-setting efforts at the national level were complemented by the conduct of strategic participatory communications and community mobilization activities at the local level. Participatory IEC at the provincial, municipal and *barangay* levels provided opportunities for stakeholders and the broader public to take part in decision-making processes related to coastal resource use and management. IEC messages not only promoted the importance of individual and collective responsibility for the coastal environment, they also deliberately advocated that LGU leadership is a key to making CRM work. Through the use of participatory processes and techniques implemented through the PCRA, participatory planning and M&E, LGU officials and the various stakeholder communities acquired the knowledge, ability and motivation required to make informed decisions about coastal resource use and management. The creation and establishment of CRM Technical Working Groups at the local level facilitated the formation of partnerships with strategic organizations/institutions that served as “multipliers” and “pressure points” for CRM. Local level activities are discussed in more detail below.

**Results and Lessons.** The following successfully integrated CRMP’s IEC approaches, and brought about a high-impact presence for CRMP, DENR and USAID throughout the life of the Project.

- **“Our Seas, Our Life” Traveling Exhibit in observance of the International Year of the Ocean (IYO), 1998 and 2001.** Characterized by high production values, this large format and visually arresting exhibit gave CRMP a rare opportunity to go high profile in its advocacy campaign. The exhibit generated considerable mass media mileage, public and private sector involvement, and general public attention and participation, reaching close to 1.5 million people during its one-year run in 7 major cities (Cebu, Manila, Dumaguete, Negros Oriental, Davao City, General Santos, and Tagbilaran, Bohol). It also served to bring together practical inter-sectoral allies to raise people’s awareness of and demand for CRM. By public demand, the exhibit had a repeat run in 2001 in Cebu and Manila.
- **“I Love the Ocean” Movement, 1998 - 2002.** Corollary to the “Our Seas, Our Life” exhibit was the launching of the “I Love the Ocean Movement”, which struck a responsive chord among exhibit viewers. Students, housewives, professionals, business people, policemen, recreational divers, media personalities, religious and educational groups, as well as artists and movie celebrities, signed up to “reconnect” with their rich maritime heritage and way of life. The movement drew close to 14,000 card-carrying members who received information about CRM and the individual and collective actions they could take to help in the marine conservation effort.
- **Blue Tapestry, 1998.** The activity involved the sewing and embroidering of squares of fabric to make a tapestry that reflected the coastal environment. Initially envisioned as one of the social mobilization activities during the IYO and implemented in partnership with local chapters of the Girl Scouts of the Philippines (GSP), the Blue Tapestry eventually became a popular activity in various Girl Scout activities. Realizing the activity’s potential to bring family members together in one interactive activity, the GSP adopted the Blue Tapestry as a regular feature of its family camps.
- **First Conference of Coastal Municipalities of the Philippines, 1999.** Conducted in partnership with the LMP, the Conference made history, being the first of its kind in Asia. It brought together more than 700 (90%) of the more than 800 coastal mayors in the Philippines, and thus succeeded in highlighting the importance of municipal waters in the LGU mandate. The conference resulted in the adoption by LMP of a 15-point CRM-specific resolution for LGUs to manage their municipal waters, bringing to the attention of national leaders (the President and members of the Cabinet) the current state of coastal and fisheries resources in the country. The activity also generated considerable mass media interest and coverage, a “State of the Ocean Address” by the President and the institutionalization of CRM as an important program of the LMP.
- **Participation in LMP’s national conferences, 1997-2003.** Throughout the life of the Project, CRMP continued to be an active participant in LMP’s annual conferences and various regional seminars, serving as resource persons, conducting CRM consultations or disseminating IEC materials/ publications. Where possible, these conferences were used to launch important publications or programs, generating optimum impact and attention. They

also served as convenient opportunities for the dissemination of IEC materials not only to mayors but also to key policy makers and legislators who attended.

- **IEC mass media campaign, 1998-2004.** Radio-TV public service announcements, special TV features/documentaries, CRM educational TV series and media interviews were aired over national and local broadcast networks for much of CRMP's life. Of greatest impact was the Project's partnership with the Philippines' largest commercial broadcast network (ABS-CBN) as well as with the Philippine government's National Broadcast Network and Radyo ng Bayan that provided free airtime for these plugs and media interviews/features. Total media values generated by these partnerships over the life of the Project are estimated at over US\$400,000.
- **Media invitational visits to CRMP learning sites, 1998-1999.** Visits to CRMP learning sites allowed members of the media to experience CRM firsthand, resulted in considerable newspaper, magazine and television coverage, and positioned CRMP as a major source of information and story leads on coastal and fisheries issues.
- **Declaration of May as Ocean Month, 1999.** Through its advocacy work, CRMP successfully facilitated the Presidential proclamation of May as the Month of the Ocean in the Philippines. To a large extent, the proclamation institutionalized IEC for CRM as the proclamation mandated the yearly, nationwide observance of Ocean Month.
- **Search for Best CRM Awards, 1999, 2000.** Conducted for two consecutive years in partnership with the LMP and DENR, the awards focused the spotlight on municipalities with outstanding CRM programs, and thus provided other LGUs with good models for CRM. The search process and awards criteria prompted CRMP to formulate and implement on a pilot scale an LGU CRM Certification system.
- **Provincial Conference on CRM, 2001.** This conference highlighted the strategic role of the province as a catalyst for CRM by bringing together 10 provinces to share lessons and experiences in CRM provincial initiatives. Through CRMP's "Blue Heart" awards, it also served as a venue to recognize provincial leadership in CRM.
- **Documentation of CRM Best Practices, 1997-2003.** Documenting CRM best practices to promote the strategic spread of CRM was always a priority activity of the Project. CRMP's experiences and lessons from the field were regularly disseminated through the Project's newsletter *Tambuli*, as well as Project staff's contributions to publications in various journals. The CRMP website, *oneocean.org*, served as an excellent source of news, information, stories and experiences on CRM and fisheries with its regular monthly updates and features. The Philippine CRM experience has been captured in the eight-volume *Philippine Coastal Management Guidebook Series*, considered as one of the most comprehensive guides on CRM in the Philippines.
- **CRMP website, *oneocean.org.*, 1998-2004.** This widely viewed website has earned a national and international reputation as a premier source of information on CRM and fisheries management in the Philippines, as well as two highly prestigious awards of excellence for its

content and design. Growth in visitor traffic over the years was consistent, with users regularly downloading CRMP publications and documents.

- **CRM Showcase Tours, 2003-2004.** During the latter part of the Project, documentation of best practices was carried to a higher level with the use of “showcasing” as a strategy to highlight the experiences of municipalities and communities successfully implementing CRM. These successful CRM municipalities and communities were developed into CRM learning destinations for study tours and cross-visits that provided opportunities for interactions and real time learning experiences. CRM learning destinations/circuits were developed for Mindanao, Central Visayas, Palawan and Masbate.
- **CRMP publications, 1998-2004.** The consistent high quality of its publications has earned for the Project the reputation of being a “source of state-of-the-art information” on CRM. These publications were largely developed and written by the Project’s technical staff/consultants, in consultation with colleagues and partners in the CRM community. All publications went through rigorous peer and technical reviews, and care was taken to get the necessary Departmental endorsements. With LMP Conferences and various CRMP workshops and seminars serving as major dissemination venues, these publications achieved tremendous reach and impact, as indicated by feedback information from recipients’ profiles.
- **Awards and recognition for IEC materials/activities.** The Project’s IYO public education activities, *AgriSiyete* Instructional TV series on CRM, the radio drama *Kapitan Barungoy*, *oneocean.org*, and *Sine’skwela* educational TV CRM episodes for children, earned prestigious media industry awards or recognition, further enhancing CRMP’s reputation as a primary source of information on CRM in the Philippines.
- **Increased awareness of CRM.** To measure CRM knowledge, attitudes and practices in fishing communities nationwide, in late 1999 and early 2000, mid-way through its implementation, CRMP contracted an independent research firm, Trends-MBL, Inc. to conduct qualitative and quantitative studies, which resulted in the following key findings:
  - a. More than half of the respondents correctly answered questions designed to measure their knowledge of ecosystems, and nearly 100% could cite the wide range of ordinances and laws related to CRM.
  - b. About 66% of respondents said they would support their LGUs in CRM.
  - c. Overall, respondents scored a 70.7% weighted knowledge index based on 21 determinants of CRM knowledge and attitudes.

The lessons generated by these results and the total Project’s IEC experience were multiple and varied from one situation to the next. In general, however, they can be summarized as follows:

- **Find an “authentic voice” and advocate for CRM.** CRMP’s strategic partnership with the LMP started the process for the prioritization of CRM in the mayors’ local agenda. With mayors themselves serving as advocates of their mandated interests, an “authentic voice” for

advocating local governance in CRM was found. The LMP partnership opened the road to the strategic spread of CRM.

- **Use mass media for agenda setting.** Mass media is a primary ally in the agenda-setting process of a public issue. This has been proven again in CRMP's case where the ventilation of marine and coastal issues in the national and local media contributed significantly to the promotion of CRM in the national agenda.
- **Carefully "package" CRM as a mainstream, not an "activist" cause, through IEC products and activities that are "mainstream" in look and content.** Because CRM challenges the *status quo*, it is vulnerable to being "marginalized" as a cause and could easily be viewed or perceived as an "activist" strategy and movement. CRMP succeeded in mainstreaming CRM by packaging or framing it to appeal across sectors. A good amount of business-sector support to IEC activities was generated as a result of this type of "packaging".
- **Engage the general public in the cause.** The "I Love the Ocean" Movement, billed as the "movement for sustainable seas", was a strategic attempt to mainstream the CRM cause. Conceived as a community mobilization vehicle, the movement drew membership from all walks of life of Philippine society, and served as a source of volunteers for CRM public education and advocacy efforts.
- **Incorporate environmental ethics in IEC messages.** A higher order of IEC must be at work to effect behavioral change. People will not act unless they believe they can make a difference. To encourage actions for environmental stewardship or citizenship, the CRM cause must be presented as an ethical issue in order that it would appeal to a higher moral order.
- **Critical mass is important.** IEC can jumpstart the process of transformation by identifying at the early stage of the Project environmental champions and leaders to catalyze CRM.
- **"Showcasing" success stories and the interactive sharing of lessons and experiences through cross visits and study tours are effective in expanding a municipality's or community's constituency outside its immediate environs.** Showcasing can serve as a pressure point for sustainability, allowing CRM initiatives to be subjected to a broader circle of transparency and accountability, and promoting the spread of best practices to other areas.

### Local Implementation Objectives and Indicators

*IR 1.1 (Improved local implementation for CRM)* defined the essential basic ingredients for CRM, including monitoring of ecological and social changes resulting from improved management and local policy and legal and institutional changes characterized by enhanced local governance. This accounted for much of CRMP's work, and the biggest investment (75%) of the Project.

*Approach and activities*

The Project’s local implementation interventions were largely directed towards mainstreaming CRM as a basic LGU service, primarily by building local capacities in CRM through the development and testing of appropriate of tools that could be adopted by the LGUs in the delivery of their resource management mandates. Building on past experience in CB/CRM, the Project focused on enhancing the participation of the community in the management of their coastal resources. CRMP worked closely with the LGU in a few strategic barangays across each of its Learning Areas, looking to set up small models of good CRM that over time could be sustained and replicated in other barangays and municipalities.

Mainstreaming required the packaging of Project objectives so that they mirrored as closely as possible the development agenda and priorities of the LGU. With seven years of working with LGUs, the Project was able to develop and refine a set of “CRM best practices” that later evolved into a “benchmark system” for CRM implementation within LGUs. These benchmarks set standard key result areas that LGUs can focus on in implementing their CRM programs. For an LGU to have mainstreamed CRM in its local agenda, it must achieve key results at different levels of implementation (Table 3.2).

**Table 3.2. Benchmarks developed by CRMP to measure LGU performance in CRM**

<ol style="list-style-type: none"> <li>1. Multi-year CRM plan</li> <li>2. Coastal resource assessment</li> <li>3. CRM-related organizations</li> <li>4. Annual CRM programming and budgeting</li> <li>5. Shoreline/foreshore management</li> <li>6. Best CRM practices being implemented:             <ol style="list-style-type: none"> <li>a. Local legislation</li> <li>b. Municipal water delineation</li> <li>c. Coastal zoning</li> <li>d. Fisheries management</li> <li>e. Coastal law enforcement</li> <li>f. Marine protected areas</li> <li>g. Mangrove management</li> <li>h. Solid waste management</li> <li>i. Upland/watershed management</li> <li>j. Coastal environment-friendly enterprise development</li> <li>k. Revenue generation</li> <li>l. Multi-institutional collaboration for CRM</li> </ol> </li> </ol>
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Flexibility, the ability to adapt to local dynamics and to the diverse and constantly changing environment, was the common trait that characterized the manner by which local implementation was carried out with the LGU and other institutional partners. For example, while there was a standard process and format that guided the development of CRM plans, LGUs and communities were encouraged to evolve their own management strategies and approaches according to what was feasible for them and their own unique issues and concerns, while considering their financial and human resources.

**CRM Planning.** The CRM planning process that CRMP adapted for Philippine LGUs consisted of five phases covering the entire CRM cycle (Figure 3.1)

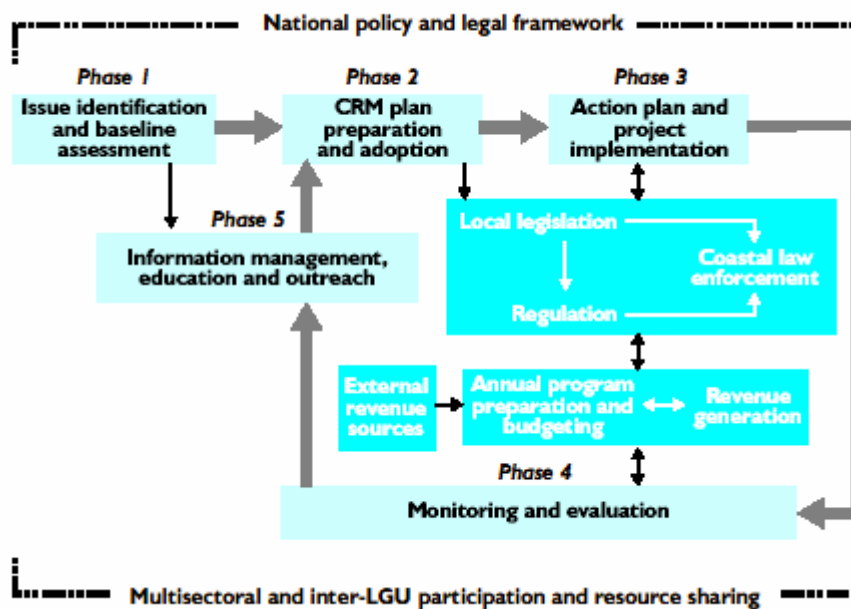


Fig. 3.1. CRM planning process adapted for Philippine LGUs

Typically, the process started with issue identification and baseline assessment, where results of PCRA were inputted (Phase I). The PCRA, which required direct involvement of the community resource users and, the LGU technical staff, proved to be an effective tool in educating the stakeholders about the importance of and threats to their coastal resources, and instilling in them a sense of stewardship over these resources. Being usually the first in the series of capacity-building and planning activities, it empowered stakeholders through ownership of the CRM process in their municipalities and primed them for the other resource management activities that would later be introduced. It also contributed to learning and provided a springboard for participants to reach a shared vision grounded on ethical values and sense of community.



PCRA proved sufficient in meeting the practical needs of many planning situations, including the establishment of MPAs. From the PCRA results, key issues were identified and became the basis for the development of CRM plans (Phase 2), which charted the LGU's future actions, and served as a guide to direct annual and day-to-day activities, while fostering informed decision-making. The strategies and actions articulated in the CRM plan were then implemented through specific programs (Phase 3) and monitored and evaluated regularly (Phase 4).

These phases were supported by Phase 5 (information management, education, and outreach, Fig. 3.2), which was implemented throughout the planning cycle (DENR, DA-BFAR and DILG 2001a).

It is not enough that CRM planning process has been adopted as the main implementation framework for LGUs. A mechanism for coordinating and facilitating these processes is needed in order to come up with specific, tangible and action-oriented results. Along this line, the Project facilitated the formation of the Municipal/City CRM Technical Working Group (TWG) or Core Group. The TWG or Core Group usually included: representatives (usually heads of offices) of the Municipal/City Planning and Development Office (M/CPDO), Municipal/City Agriculture Office (CAO/MAO), MFARMC, Municipal/City environment and Natural Resources Office (MENRO/City ENRO), *Sangguniang Bayan* (SB-Municipal Council), and all coastal *barangays* (villages). Assisting organizations such as the Community Environment and Resources Office (CENRO) of DENR, academe, NGOs, etc, provided technical inputs to the TWGs at different stages of CRM planning and the implementation process.



























































































To make CRM sustainable, efforts were also exerted to include, and where possible integrate, CRM in local development plans, such as the comprehensive land use plan (CLUP), and the planning process in the local government system as an essential part of the governance process. At the provincial level, CRMP's Learning Area provinces, like Davao del Sur, included CRM component as one of the criteria for the approval of the coastal municipalities' CLUP.

CRMP assisted 120 coastal LGUs in the preparation of their plans (Figure 2.9).

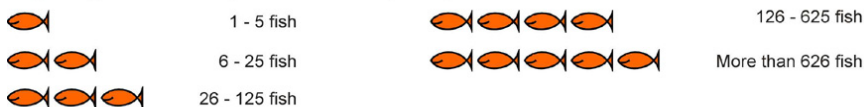
**MPA establishment.** CRMP's experience underlined the popularity of MPAs as a CRM intervention among LGUs. MPAs proved to be useful microcosms of CRM, demonstrating the impacts and benefits that could be derived directly from resource management, and serving as small models of resource management systems. For CRMP, the key activity was the process of establishing the MPA, which involved all key steps in the CRM planning process, implemented on a smaller scale.

The process was significant in that it showed how the management of a small area of municipal waters could be devolved into the hands of the community, and installed a locally

controlled and managed system with the resource users themselves managing the area, thus changing once open-access resource regimes into ‘closed area’ resource management systems. One of the most effective strategies that the project adopted in MPA management was to involve the community in monitoring the bio-physical changes occurring in a managed MPA over time, and presenting the results graphically to demonstrate the benefits of protection (Figure 3.3).

Fish Type Visayan English	October 1998		March 1999		November 1999		March 2000		March 2001	
	Inside Sanctuary	Outside Sanctuary	Inside Sanctuary	Outside Sanctuary	Inside Sanctuary	Outside Sanctuary	Inside Sanctuary	Outside Sanctuary	Inside Sanctuary	Outside Sanctuary
Lapu-lapu Grouper										
Labayan Wrasse										
Lipte Sweetlips										
Katambak Emperors										
Sulid Fusilier										
Timbungan Goatfish										
Silay Bream										
Alibangbang Butterflyfish										
Indangan Surgeonfish										
Kitong Rabbitfish										
Baw/Balo Needlefish										
Malmol Parrotfish										
Samok Mojaras										

Legend (fish observed per 500 m<sup>2</sup> survey area):



Source: Coastal Resource Management Project (CRMP) / University of the Philippines - Marine Science Institute (UP-MSI). Community-based monitoring team includes representatives of the Municipality of Cordova, Barangay Gilutongan, DENR Region VII, BFAR Region VII, the University of San Carlos - Marine Biology Section (USC-MBS), and International Marinelifelife Alliance - Philippines.

Fig. 3.2. Sample chart showing fish abundance data taken from the Gilutongan Marine Sanctuary, Cordova, Cebu using participatory monitoring techniques

**Enterprise development.** At the outset, the project design recognized the need to address the livelihood concerns of fishers, and recommended the following approaches (USAID 1995):

1. Resource assessment to increase fishers’ awareness of the economic limits of their fishery, combined with assistance that demonstrates how to reduce costs and increase profits from limited harvests or add value to products; and

2. Identification on alternative enterprise opportunities for surplus fishers to reduce fishing efforts with minimal economic dislocation, combined with effective controls on resource access.

The requirements of CRM shaped the enterprise development approach to one that focused on commodities that caused no harm to the environment, were marketable, and where practicable, were expected to positively impact the coastal environment. This commodity-specific approach was geared specifically toward the development of enterprises based in rural households, involving in particular the fishers and their families. Emphasis was placed on commodities with existing market channels that were not already saturated or monopolized by certain sectors and thus could still capture a high value for rural clientele.

Critical to the success of enterprise development as a resource management tool was commodity selection: the commodity or product mix was chosen based on specific criteria, namely, a relatively fast return on investment, sustainability, and environmental soundness. Where possible, the profitability of the enterprise was linked to the health of the environment so that the enterprise contributed to enhancing environmental protection.

CRMP tested and modeled different CRM enterprises in its six learning areas. Projects that showed little potential for success and did not satisfy the CRM, social equity and sustainability requirements were not pursued. Listed below are those enterprises that proved to be viable and provided significant lessons and insights in enterprise development for resource management:

- **Olango Birds and Seascape Tour (OBST), Suba, Olango Island.** A community-based ecotourism venture owned and operated by the Suba Olango Ecotourism Cooperative, the OBST was developed to put the community on equal footing with tour operators and other marketing channels. Part of the marketing strategy was to help the community find its niche market in the mainstream tourism industry of Cebu City and establishing partnerships with tour operators while maintaining its autonomy. This allowed community members to negotiate prices with different clients and continue to operate with or without a tour company to assist them. The OBST demonstrated that the community's resolve to protect the environment becomes much stronger when they realize its direct economic value to their enterprise. The OBST received a "Highly Commended Status" citation from Conservation International and was voted Best Environmental Experience by the British Airways' Tourism for Tomorrow Awards in 2000.
- **Cambuhat River and Village Tour, Buenavista, Bohol.** The focus of this enterprise development initiative was the conservation of the river and coastal ecosystem. Enterprises were chosen based on how they would supplement the community's income as well as

contribute to the management of the river ecosystem and nearby village. Activities included training in oyster culture and product and skills enhancement for traditional crafts such as *raffia* and *buli* weaving. Through all stages of enterprise development, from planning through decision making, product development and marketing, all the way to product and service delivery, the Project sought the community and LGU's active involvement. This participatory process prompted the LGU of Buenavista to enact legislation to protect the estuarine and river ecosystem by declaring portions of it as a local reserve, and develop a 5-year municipal CRM plan.

- **Sardines processing, Panindigan Women's Group, San Vicente Palawan.** Work with the women's group in this remote village in San Vicente, Palawan, involved the assessment of livelihood problems and needs, and the identification of viable enterprises based on available resources, skills, and potential market linkages both within and outside San Vicente, Palawan. Trained in production, packing, packaging and marketing, the group achieved early commercial success, with their product generating good market feedback. Today, the factory remains profitable and its products sought after, but ownership, management and operations have been assumed by one member, as the other members failed to sustain their interest in the business. Some group members are now employed and thus continue to derive an income from the economic activity. The experience underscores the importance of developing market linkages and the entrepreneurial and marketing skills of beneficiaries of enterprise development initiatives.

**Mangrove management.** Mangrove management interventions focused mostly on installing the systems that would make mangrove protection a more attractive economic proposition than converting mangroves to other uses. A key objective was to promote community stewardship over mangroves through the CBFMA, as specified in the Project design and 1998 Revised Results Framework (Figure 1.2).

The CBFMA is a 25-year production-sharing agreement entered into between a community (through a duly registered PO or similar organization) and the government to develop, manage, use and conserve a specific portion of forestland consistent with the principles of sustainable development and pursuant to an approved Community Resource Management Framework Plan (CRMFP). CBFMAs, which integrate all of the old tenure instruments on forestlands prior to 1996, are used by the DENR to award tenure rights over forestlands (including mangroves) to organized communities. It also provides a mechanism for cooperation between DENR, the LGU and resource users.

The DENR holds the primary jurisdiction over mangroves in the Philippines, but under the LGC, its responsibility for mangrove conservation is shared with the LGU. In an attempt to integrate management of fisheries resources and mangrove habitats more closely, the Fisheries

Code of 1998 (Section 81) encourages the establishment of marine/coastal sanctuaries, which must include large areas “to be set aside for the cultivation of mangroves to strengthen the habitat and the spawning grounds of fish”. The Code (Section 89) also mandates the DENR, BFAR and the LGU to use participatory processes in determining which abandoned, undeveloped, underutilized fishponds covered by fishpond lease agreements (FLAs) can be reverted to timberland for rehabilitation to their original mangrove state (DENR, DA-BFAR and DILG 2001b).

These legal provisions and the CBFM framework provided the basis for CRMP’s work with the LGUs and 9 POs in 4 towns in Bohol (Candijay, Getafe, Inabanga and Mabini). A critical consideration was to equip the LGU for CBFM. Under an agreement with CRMP, each of the four LGUs assigned a community organizer (CO) to their respective management area to assist the PO in community organizing and training, coordinate management activities, and monitor compliance with the terms of the CBFMA. In most areas, the CO’s services were paid for by CRMP initially, and later by the LGUs involved. As the commitment of the PO to manage the area was secured and new livelihood opportunities opened up for the community, the LGU became more willing to invest its own money in the endeavor.

In Talibon, Bohol, the LGU appropriated an initial budget of Php1.5 million from its internal revenue allotment (IRA) for soft loans that the cooperative could use to purchase equipment, supplies and working capital. Other LGUs also poured funds into mangrove management, even outside the CBFMA system. CRMP provided mangrove management training to LGUs and communities in Masbate Province and Davao del Sur, where a number of municipalities have since pursued their own community-based mangrove rehabilitation programs. Since 1999, Masbate City has invested more than Php1 million to restore its mangrove areas, while the town of Hagonoy, Davao del Sur has established a mangrove nursery and plantation.

**Coastal law enforcement and municipal water delineation.** With the passage of the 1991 LGC and 1998 Fisheries Code, a broad range of powers and responsibilities, including law enforcement, were devolved to LGUs as the primary unit of governance for CRM (DENR, DA-BFAR and DILG 2001c). CRMP’s strategy focused on affirming this mandate, by encouraging LGUs to form and strengthen the organizations legally mandated to enforce coastal laws, such as the *Bantay Dagat* (literally, “sea watch”, a patrol team organized especially for purposes of enforcing fishery laws). In many of the Learning Area municipalities, CRMP worked with BFAR to organize fishers and deputize them as wardens to assist in the implementation of fishery laws.

Improving law enforcement in the context of CRM, however, involves more than enhancing the capacity of law enforcement officers to apprehend violators; it also involves the application of a broad range of approaches by different institutions as well as coastal stakeholders. (DENR, DA-BFAR and DILG 2001c) Recognizing this, the Project adopted a

coastal law enforcement framework that related coastal law enforcement to the desired result of compliance with management measures (Figure 3.4). This framework reflected the CRMP view that, to achieve compliance with the requirements of the law, government must rely on a variety of interventions in a continuum of activities ranging from “soft” preventive measures such as public education to “hard” sanctions imposed by apprehension, prosecution and conviction. The municipality of Talibon in northern Bohol realized significant improvements in local governance, the condition of coastal resources, and health and welfare of coastal communities by diligently and consistently applying both soft and hard law enforcement approaches as an integral part of its CRM system. (DENR, DA-BFAR and DILG 2001c)

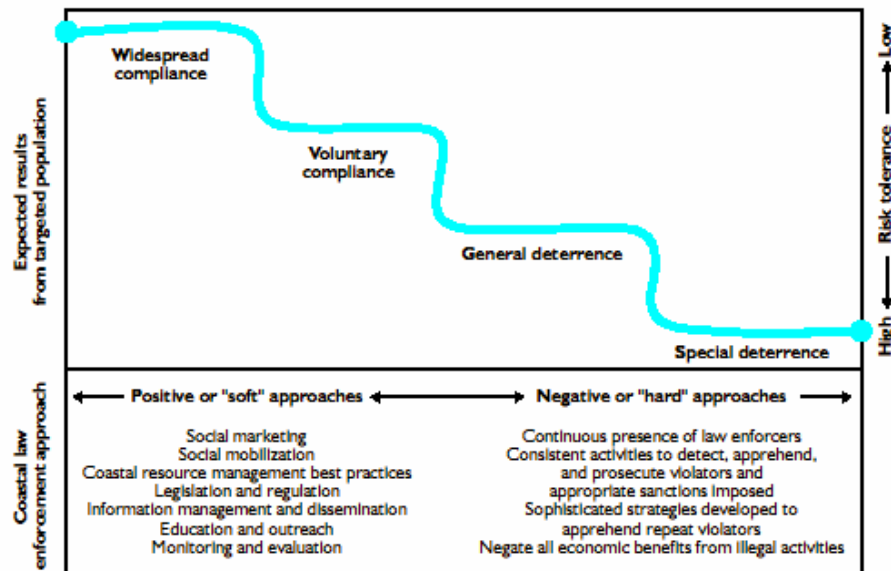


Figure 3.3. Law enforcement framework adapted for CRM (DENR, DA-BFAR and DILG 2001c)

Lack of political will was often cited as the major cause of the pervasiveness of illegal activities in the Project areas. Even when the LGU was determined to enforce the law, however, it was challenged by logistical constraints and the fragmented state of the Philippine law enforcement system. Records from the MCD show that in 2000, only 15% of the LGUs had budgets for law enforcement; of these, only 7% had operational patrol boats (CRMP 2001c).

During a coastal law enforcement summit called by the Province of Bohol in 2000, participants concluded that law enforcement was a responsibility that must be shared between the LGU and higher levels of government, and that adopting a multi-sectoral and multi-agency

approach was necessary. The summit resulted in the formation of the Coastal Law Enforcement Councils (CLECs), one for each of the three districts of Bohol.

The CLEC's operational arm is a coastal law enforcement team led by the Philippine National Police (PNP) and PNP Maritime Command. To get the CLECs going, the Provincial Government provided each team with a fully equipped patrol boat and gasoline budget. The teams then held community meetings to explain the law and communicate the government's intent to fully enforce it. These meetings also helped to resolve small issues and coordinate the law enforcement activities of the CLECs. Since then, several arrests (more than 60 as of end-2001) have been made for violations ranging from dynamite fishing to commercial fishing in municipal waters.

Initially, the province fully funded the operations of the CLEC boats, but more and more municipalities have begun taking on the burden of the costs of patrolling, and some are making significant economic returns from fines imposed on violators. PNP stations around the province have also set up environment desks to complement the CLECs' efforts.

Bohol's initial success in law enforcement was built on three key ingredients: multi-sectoral collaboration, IEC, and the support of the provincial government. Provincial support, in particular, must be emphasized. Although law enforcement must primarily and ultimately involve local action, inter-LGU collaboration and higher-level interventions covering a wider geographical area are essential to adequately control violations characterized by a high degree of mobility, as most fishery law violations are. At the provincial level, this can best be facilitated by the provincial government, which under the LGC (Section 447) holds the legal mandate to "protect the environment and impose penalties for acts which endanger the environment, such as dynamite fishing and other forms of destructive fishing... and such other activities which result in... ecological imbalance."

**Municipal water delineation.** One of the most important developments related to CRM that emerged in the 1990s was the government's official declaration of municipal fishers' preferential rights over municipal waters. The concept of municipal waters is not new. It has been established under Philippine law since as early as 1916. The boundaries of these waters, however, were never delineated, so there was never any clear definition of the limits of the jurisdiction of local governments over their so-called "municipal waters" (Batongbacal 2001).

In 1999, to comply with its mandate under the Fisheries Code, NAMRIA, on request by BFAR and assisted by CRMP, started the process of formulating the guidelines for the delineation and delimitation of municipal waters based on the archipelagic principle. The guidelines went through a series of consultations and trial runs in different provinces before they were officially approved under DAO 2001-17.

Formulating and then repeatedly amending the guidelines over several consultation workshops with various stakeholder groups was a challenging process, but what really proved challenging was defending DAO 2001-17 when it came under attack from a group of commercial fishing operators who alleged the order was invalid because of “legal infirmities.”

CRMP facilitated discussions to explain DAO 2001-17 to government leagues, POs, NGOs, NGAs and various other groups that were involved in CRM. These discussions led to the formation of a loose coalition of DAO 2001-17 advocates, who led information campaigns and consultations to counter the commercial fishing lobby. The defense focused on DAO 2001-17’s legal basis: the 1987 Philippine Constitution, which enshrined the archipelagic principle as the fundamental pillar of the Philippine concept of territory and recognized the preferential rights of subsistence fishers over communal waters; the LGC, which first defined municipal waters to include marine waters up to 15 kms from the shoreline; and the Fisheries Code, which declared municipal waters off-limits to commercial fishing, and mandated municipal water delineation.

Pressure from DAO 2001-17 advocates encouraged DENR, through NAMRIA, to push the delineation. CRMP assisted the NAMRIA to facilitate municipal water delineation in a number of provinces, including Antique, Bohol, Cebu, Negros Oriental, Surigao del Sur and Masbate. By July 2003, NAMRIA had certified the technical descriptions of the municipal waters of several municipalities in these provinces; the City of Manila, 12 LGUs in Masbate Province, three LGUs in Negros Oriental and 8 LGUs in Bohol have officially delineated and delimited their municipal waters through local ordinances.

In early 2003, however, the DOJ, responding to a request from groups opposing DAO 2001-17, issued an opinion stating that the DA, and not DENR, was the agency authorized to issue the delineation guidelines. Subsequently, in 2002, DENR revoked DAO 2001-17.

The revocation of DAO 2001-17 slowed down the delineation effort. CRMP redirected its efforts to clarifying the issues related to delineation in particular, and the enforcement of municipal waters in general. Affected stakeholders representing more than 100 organizations joined forces to spearhead a national campaign to compel the DA to reissue DAO 2001-17 in its entirety. In January 2004, DA approved new guidelines covering “cities and municipalities without offshore islands.” The more contentious guidelines for the delineation of municipal waters of LGUs with offshore islands remain the subject of debate between representatives of municipal and commercial fishing interests.

The delineation and delimitation of municipal waters should have been a first step in CRM. While CRM can proceed even where municipal waters boundaries are not clearly delineated, some critical resource use and management issues – primarily the intrusion of commercial fishers in municipal waters – can be more effectively resolved when the boundaries



are defined. Also, for more effective management and to optimize the use of their meager resources, LGUs need to know the full extent of their coastal area.

**Fisheries management.** Fisheries management was added to the CRMP program in mid-2002. Designed primarily to lay the groundwork for future fisheries management initiatives, it sought to address concerns that, despite many years of solid CRM interventions in the country, successes were on the whole localized and needed to have a broader reach. Also, the larger fisheries situation was still very bleak.

Fisheries Management activities were focused on depicting the extent of overfishing in the Philippines through the consolidation of existing data and information nationwide. CRMP worked with DA-BFAR under an MOU signed with the BFAR Central Office and BFAR-7 toward achieving the following indicators: *IR1.1 (Improved local implementation of CRM)*, in particular *Indicator 2 (No. of provinces and/or multi-municipal/city clusters initiating/investing in institutional arrangements for coastal and fisheries resource management)*; *IR1.2 (Increased awareness of overfishing problems and proposed solutions)*; and *IR 1.3 (Improved policy and institutional framework for CRM and fisheries)*, in particular *Indicator 1 (Harmonization of national policy for CRM – Marine fisheries profile endorsed)*.

CRMP's major achievement towards these objectives was the dissemination and consolidation of fisheries information through publications. There have been many separate studies and assessments documenting the country's overfishing problem since 1960s, but many of these studies had not been consolidated or disseminated widely, let alone popularized. CRMP focused on strategic publications to disseminate key fisheries information to resource users, policy makers and managers, consolidate a foundation of sound data for managers and implementers to justify their management interventions, and offer some directions for fisheries management agencies and managers:

- *In Turbulent Seas: The State of Philippine Marine Fisheries* compiles decades of work of the country's leading fisheries scientists into one reference book, a DA-BFAR publication endorsed by 29 of the country's leading government, academic and non-government institutions and representing the work of more than 68 authors.
- *Philippine Fisheries in Crisis: A Framework for Management* presents in popular format information on fisheries management, overfishing and the current state of Philippine fisheries.
- *The Fisheries of Central Visayas: Status and Trends* considers fish stocks from a regional point of view and builds fisheries management into CRM in practice in the region.
- *The Sarangani Bay and Illana Bay Fisheries Profiles*, prepared by MSU-General Santos City in coordination with CRMP, highlights Southern Mindanao fisheries

- *The Current Reality of the Philippine Shell Industry, with a Focus on Mactan Island, Cebu*, a study prepared in collaboration with Silliman University, highlights a sector of specialized fisheries, which also contribute to overfishing.
- Content development for various IEC materials designed to popularize overfishing concepts, including a fish ruler, posters and two local dialect comics

In addition to these publications, CRMP assisted Regions 1, 5, 6, 7, 9, 11, 12 and ARMM in finalizing and packaging the results of the 5-year National Stock Assessment Project of the National Fisheries Research and Development Institute (NFRDI) of the BFAR. To highlight the inter-connectivity of fishing grounds beyond geopolitical boundaries the Project, in partnership with the BFAR-Visayan Sea Project and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, also assisted in consolidating BFAR-7 stock assessments with data from BFAR-6 for the Visayan Sea Fishery ecosystem.

To promote dialogue between key stakeholders in Central Visayas, CRMP assisted BFAR-7 in initiating a Fisheries Management Framework Planning process in the 109 coastal municipalities of the four provinces of Central Visayas. Taking off from a municipal fisheries baseline assessment conducted with UP Visayas Foundation Inc., CRMP facilitated 12 workshops to discuss the way forward for fisheries in the region. The process culminated in a region-wide “fisheries ecosystems” framework planning workshop which divided up the region’s waters into seven key fisheries ecosystems and developed a management framework for each. A highlight of the process was the participation of representatives of the commercial fishing industry, who engaged in meaningful dialogues with municipal fishers.

CRMP also provided limited technical assistance to the inter-regional collaboration of Central Visayas and Eastern Visayas, with the goal of jointly managing the country’s only Double Barrier Reef, the Danajon Bank. The provinces of Bohol, Cebu, Leyte and Southern Leyte and their respective municipal governments attended a series of workshops and forums towards the joint management of this once rich resource under the Fisheries Improved for Sustainable Harvest (FISH) Project of DA-BFAR and USAID.

**CRM monitoring and evaluation system.** Coastal municipalities and cities need to monitor the implementation of their plans and programs as basis for evaluating performance and planning future investments to improve implementation of CRM measures. Unfortunately, M&E is perhaps the one phase of the CRM process that receives the least attention from Philippine LGUs. It is in this context that in the last four years of CRMP’s project life, an M&E component was created to address the need to emphasize this stage of the CRM planning process. The M&E system would have been put to better use had it been installed at the outset, but the time it took to develop the system and guidelines was time spent learning from the field, and identifying the most

appropriate benchmarks with which to measure LGU performance, and the institutional arrangement necessary to establish M&E as an internal function of the LGU.

The CRM M&E system developed by CRMP provides the framework for LGUs to benchmark their performance in the delivery of CRM as basic service. It promotes multi-sectoral collaboration in the review and validation of LGU performance as well as effective planning for building capacities for LGUs in CRM.

The M&E procedure deviates from traditional approaches in two ways. First, while the traditional approaches employ strictly quantitative methodologies, the CRMP method uses both quantitative and qualitative methods. Second, it promotes broad stakeholder participation and multi-sectoral participation in an “internal” process of self-evaluation and continuous quality improvement, quite unlike the traditional models where monitoring is an “external” process conducted by outside groups checking up on implementers as a requirement for compliance in a top-down governance framework.

Overall, CRMP succeeded in promoting M&E as an important and integral part of the CRM planning process for LGUs. Under the M&E component of the Project, the following were accomplished:

- Development of a benchmark system or a set of required activities and best CRM practices (Table 3.2), which now serves as standard key results for CRM implementation at the LGU level nationwide.
- Content development for the M&E guidebook *Monitoring and Evaluating Municipal/City Plans and Programs for Coastal Management*
- Development of the MCD, a key input to the M&E process. The MCD, which is available electronically as well as in printed form (for LGUs lacking computer facilities), contains information on coastal environment and the CRM activities undertaken, and is updated periodically by each LGU to reflect changes in the indicators used. It also provides a measure to evaluate plan implementation and enforcement. CRMP used the MCD as an M&E tool as early as 1997, and refined it over 3 years of application in the field.

**Training, IEC and building networks for CRM.** Being primarily a technical assistance project, CRMP focused on two modes of developing LGU and community capacity for CRM: training and IEC supported by policy and advocacy, and building networks for better coordination of resources (both external and internal). The most crucial challenge was to develop a programmatic approach that would effect the transition of the Project’s “clients” – both individuals and institutions – from a “learning mode” to the actual application of newly learned CRM principles, knowledge and expertise as part of their daily custom.

An IEC or policy and advocacy intervention was usually the vehicle for introducing individual LGUs to the CRM concept. Such intervention was normally characterized by face-to-face, highly personalized interactions with political leaders and technical staff at all levels of the LGU. The immediate objective was to “sell” CRM as an indispensable ingredient for achieving the LGUs’ development goals. Thus, although the message about the crucial need for CRM was consistent, the manner by which it was communicated varied from LGU to LGU.

For example, in many of the Learning Areas, many LGUs regarded CRM as a “marginal” activity relative to their “more important” agriculture and fisheries program, which in most areas involved mainly promoting efficiency and production from a purely resource utilization and economic perspective. CRMP’s message would therefore focus on changing this perception by highlighting the negative impacts of development programs devoid of the resource management context, or the benefits that CRM can generate to enhance their program and improve its performance. Sometimes, the message emphasized CRM’s critical role in food security, or, in the case of the expansion municipalities in the southern part of Cebu, as a requisite for optimizing the benefits of that area’s designation as a tourism zone in the Cebu Provincial Master Plan.

It was not easy to pin down the specific message that would favorably influence LGU and community decisions about CRM. Generally, messages that affirmed the LGU’s mandate as CRM service provider proved to be most effective. Often, citing pertinent provisions of the LGC, Fisheries Code and the AFMA helped. Continuously reiterating and affirming the LGU’s mandate in CRM promoted public awareness of the LGU’s responsibility for managing municipal waters – a 1999 survey revealed a high level of public awareness (85%) of such LGU mandate among coastal residents (Trends-MBL 1999) – which in turn promoted local accountability in CRM (Table 3.3).

Localizing information regarding the state of coastal habitats and corresponding issues and problems was also highly effective as an agent to move people to action. This was why PCRA proved to be a valuable educational tool. A good number of community members and LGU officials that the Project worked with were observed to have become more supportive of CRM after a PCRA exercise, when they had personally seen or were presented with information about what was happening to their own coastal environment, literally, in their own front or back yards.

To orient LGUs and community members to the more technical aspects of CRM, the Project packaged training programs in a form that made them as relevant and as responsive as possible to participants’ perceived learning needs. Training modules emphasized the use of hands-on, participatory methodologies, and injected the element of “fun” to enhance learning. “Fun” – in the form of on-site resource assessment involving snorkeling and swimming, and the telling of humorous “fish tales,” for example – had a great educational value, improving

participants’ understanding and recall of scientific principles they would find difficult to grasp in a purely classroom setting.

**Table 3.3. What the public knows about CRM and their coastal environment (Trends-MBL 1999)**

KNOWLEDGE/ATTITUDE STATEMENTS	% of Respondents		
	Strongly agree/Agree	Strongly disagree/Disagree	Undecided
The LGU is responsible for managing municipal waters	86	5	9
MPAs will contribute to the rejuvenation of fish stocks and recovery of coral reefs	87	8	5
Responsibility for managing coastal resources is everyone’s responsibility	92	4	4
Unproductive fishponds should be converted back to mangrove areas	89	6	5
Limiting fishing effort is one way of reversing declining fish catch	69	23	8
AWARENESS OF CRM	Total Philippines	CRMP Learning Areas	Other Areas
	41	50	25

LGU demand for training was often focused on specific activities, such as MPA establishment or mangrove management. While responding to such demand, training programs also provided the “big picture” – a comprehensive overview of the entire CRM process, so that participants were able to make the necessary connections between the new skills they acquired with CRM and sustainable development as a whole. This was essential to developing in participants a mindset that CRM is a mainstream LGU service that must be prioritized in the LGU’s programmatic directions and resource allocations.

While training was an inherently capacity development activity, it was also directed so that it provided the LGUs not only the technical capacity for CRM, but also the other skills needed to run a successful CRM program. The key was to involve LGU staff in the “backroom” operations of each activity leading up to the “main event”, and not just as participants in the “main event” itself. This exposed them to organizational management training not normally available in regular training programs of technical assistance projects like CRMP. Given the diverse and cross-sectoral issues that CRM interventions must address, some level of competence in coordination, facilitation, events organizing, and conflict resolution would be useful to the LGU.

Training and IEC activities also served as occasions for building coalitions and networks of formal and informal organizations to support local CRM implementation. To this end, counterpart funding was encouraged. Through counterpart funding with partner organizations, CRMP was able to leverage resources in order to cover more areas, while enhancing LGU ownership and commitment to the CRM process. Analysis of the counterpart funding arrangements in the Learning Area municipalities in Negros Oriental revealed that municipal LGUs were contributing an average 73% of the necessary annual funding requirements of Php1,776,000 for CRM, while CRMP, NGAs, and NGOs were providing 16%, 6% and 5%, respectively (Courtney *et al* 2002).

As a rule, in all the municipalities and provinces the Project assisted, training also involved organizing a technical assistance team from among the participants. By requiring representation from various LGUs and line NGAs, the training activity helped ensure that there was a good mix of government institutions represented in the team.

In Palawan, one-on-one meetings with local officials, community leaders and other potential leaders and champions for CRM laid the groundwork for coalition building. Such personalized and informal meetings were followed by larger group discussions, often organized and facilitated by the identified champions themselves.

The Project recognized the important role of local champions and leaders in catalyzing policy change, building consensus and clarifying goals, and nurtured local champions by providing them with training, resources and an enabling environment. With local “heroes” and not the Project taking the spotlight, the LGU’s sense of ownership over the CRM process was heightened, accountability was promoted, and sustainability enhanced. Where necessary and considering local expectations, values and power relations, CRMP encouraged CRM networks to support and advocate institutional and policy change in a way that ensured recognition and adequate incentives for individual performers.

## **Expanding CRM Nationwide**

In addition to national policy work and IEC activities and strategies that supported this objective, the Project sought to define mechanisms to more strategically expand its influence, by seeking partnerships that cut across many sectors (Figure 3.5) to back up local actions by LGUs and communities.

### ***Approach and activities***

The following mix of collaborative mechanisms allowed CRMP to expand its reach beyond its core Learning Areas: donor collaboration and leveraging, LGU “clusters”, coordination through

the Province, and NGA coordination. These mechanisms were supported by a variety of feedback and incentive systems to facilitate communication and information exchange.

**Donor collaboration and leveraging.** The directive to seek out collaborative arrangements with other donor projects involved in CRM or related activities was articulated in the original Project Design (USAID 1995), and reiterated in the 1998 mid-term evaluation report (Rassas *et al* 1999). The 1995 design specifically identified the USAID-funded GOLD, Growth with Equity in Mindanao (GEM), Industrial Environmental Management Project (IEMP) and GreenCom Project; and the ADB-funded FRMP as key partners. In addition to these, the 1998 evaluation report recommended linkages with the World Bank-funded Community-Based Resource Management Project (CBRMP); USAID-funded Environmental and Natural Resources Accounting Program (ENRAP) and Global Plan of Action (GPA); and the United Nations Development Programme (UNDP)-supported Capacity Building Coastal Management Project.

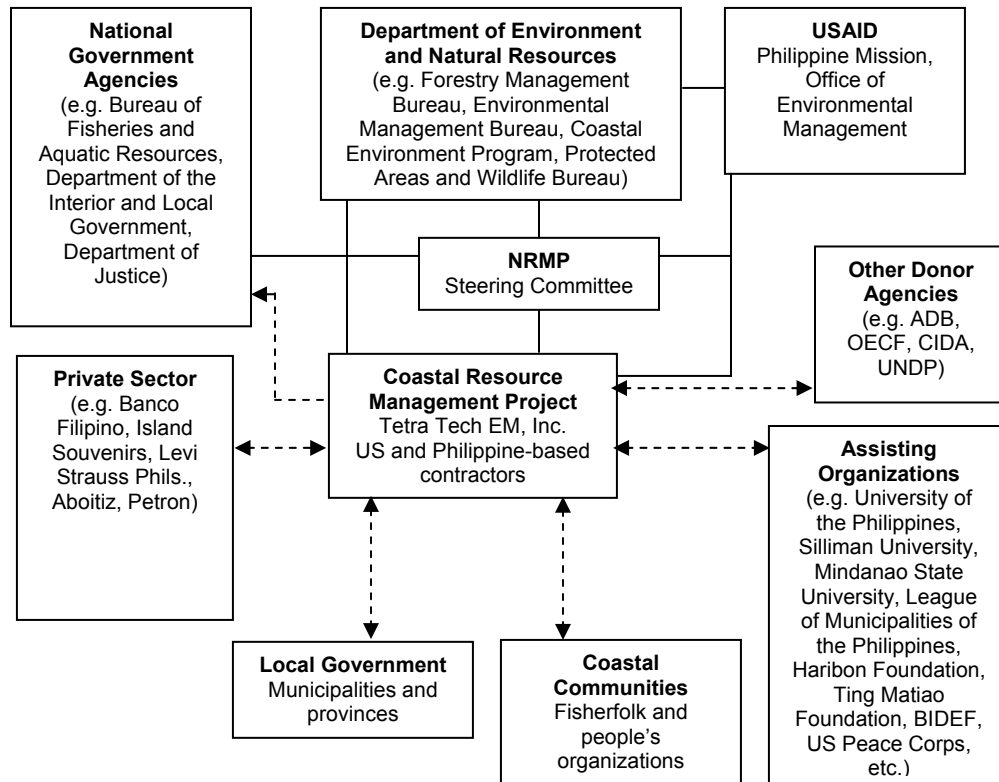


Figure 3.5. CRMP partners (see Appendix B for full list of CRMP partners)

As directed by the Project design, CRMP was to achieve 50% – 1,500 km – of its original target kilometers of shoreline by working with other donor groups involved in CRM in the Philippines. The strategy was to promote the use of the Project’s 1998 revised results framework (Figure 1.2.) among donor projects, so that whether it was CRMP or some other project that was working in the field, everyone would be moving towards the same strategic objective, and applying the same indicators to account for their results. Such level of collaboration and leveraging with other donor projects would have helped catalyze the development and operation of a national coordinating mechanism for CRM.

There was considerable sharing of experiences, expertise and products between CRMP and projects like FRMP, CBRMP, and the GOLD Project. FRMP, for example, now uses CRMP methodologies and training materials for CRM planning, PCRA, mangrove management and MPA establishment, while CBRMP employs the CRMP strategy for promoting community-based mangrove management. Joint training courses were conducted and, in some cases, handbooks and guidebooks were co-published with other programs. Between 1996 and 2001, CRMP collaborated in this manner with more than 150 different organizations and institutions. (Courtney *et al* 2002) These are all significant initiatives contributing to the spread of CRM best practices to areas outside the CRMP sphere of influence.

**LGU “clusters”.** Among the earlier mechanisms CRMP employed to improve service delivery in CRM at the local level was inter-LGU coordination. The municipalities bordering Sarangani Bay in Sarangani Province and Malalag Bay in Davao del Sur were the focus of initial attempts to establish a coordinating mechanism among LGUs. The primary objective there was to bring about the harmonization of the regulatory ordinances of the concerned LGUs to address one of the downsides of increased local autonomy: the preponderance of inconsistent, sometimes conflicting regulations on resource use and management. The need to harmonize local ordinances, especially for bay-wide planning and management such as in Sarangani Bay and Malalag Bay, was articulated in the Project Design, which stated, “[R]egulatory ordinances... should, ideally, be in agreement from one place to another” (USAID 1995).

The cluster concept later evolved as a strategy to create a “ripple” of CRM from one LGU cluster to neighboring municipalities. In Cebu, Negros Oriental, Sarangani and Bohol particularly, each LGU cluster served as a network of support and a mechanism for a group of municipalities to plan together, leverage resources, share experiences, and generate a common vision and shared commitment for CRM. Regular checkpoint meetings served as the venue for sharing and some friendly competition and peer pressure, as well as windows for ventilating issues and concerns affecting cluster members. In Negros Oriental, the number of MPAs (28 as of 2001) reflects the desire of each LGU to replicate what is working and popular in a neighboring LGU (Courtney *et al* 2000). In Cebu in 2000, the LGU cluster successfully lobbied for funding



support from the provincial government, which until then had shown little interest to promote CRM.

**The Province.** Project management decided to shift from direct assistance to municipal LGUs to the provincial service delivery mode in 1999, in response to a recommendation contained in the CRMP mid-term evaluation report (Rassas *et al* 1999). At the time, it was apparent that, because of basic differences in orientations, timelines and targets between CRMP and other donor projects, donor collaboration alone would not give the expansion required to achieve the strategic objective of 3,000 km. In the Learning Area provinces – Bohol, Cebu, Davao del Sur, Negros Oriental, Palawan, and Sarangani – the shift primarily involved engaging the province as a partner in “expansion” activities covering municipalities outside core Learning Area municipalities, and at the same time continuing municipal-level efforts. In the Expansion Area provinces, such as Masbate, CRMP focused solely on developing capacities at the provincial level, while instituting the mechanisms for inter-agency cooperation through the Provincial CRM Core Group. This firmly put the province in the lead role as primary CRM technical assistance provider within its sphere of jurisdiction, with NGAs such as BFAR, DENR, DILG, Department of Trade and Industry (DTI), the Department of Social Welfare and Development (DSWD) and coastal law enforcement agencies in a supporting role.

Four elements make the province especially strategic as a channel for CRM technical assistance to municipal LGUs: the existence at the provincial level of mechanisms for regular consultations between municipal LGUs, assisting NGAs and the province, such as the Provincial Development Council (PDC); availability of funds for capacity development that can be strategically directed to promote municipal-level capacities in CRM; provincial influence on municipal development thrusts through a review process undertaken by the Provincial Land Use Committee (PLUC); and policy and legal mechanisms for setting a provincial framework to support local CRM implementation.

A key to success in capacity development at the provincial level is visible leadership –the political will, ownership and commitment manifested by both political leaders and technical staff for CRM. Such leadership was present in varying degrees in most of our Learning and Expansion Area provinces. The more important challenge, however, was to define and install suitable instruments and mechanisms to ensure that capacities were sustained beyond the terms of government officials who initially championed the capacity-building effort.

In Davao del Sur, several institutional mechanisms were put in place, including a provincial CRM council created by an executive order issued by the provincial governor, designation of the Provincial ENRO as the lead CRM office also through an executive order from the governor, CRM TWG, CRM certification committee, and Provincial Anti-Illegal Fishing Task Force (PANIF-TF). These groups worked together to formulate a 5-year (2001-2005) provincial CRM plan, believed to be the first of its kind in the Philippine.

In Palawan, a provincial CRM team was organized through a special order from the governor. It is supported by a Provincial Board resolution adopting CRM as a basic service of the provincial government.

In Bohol, a provincial environment code formulated in 1998 with assistance from the GOLD Project provided the policy and institutional framework for environmental management. The code created the BEMO, which is responsible for all environmental management activities in the province. CRMP focused on integrating CRM into BEMO's development and organizational framework and at the same time guiding the office's CRM section staff through the development of seven "learning area municipalities". This resulted in the spread of CRM outside of the initial CRMP Learning Areas, provided individual BEMO staff countless opportunities to gain competence in CRM through hands-on experiences, and installed an institutional memory that outlives political term limits.

In Masbate, the institutionalization of CRM in provincial governance began with the creation of a Provincial CRM Core Group, which is now looked up to by municipal LGUs as the primary provider of technical assistance and training in CRM in the province. In 2000, the province adopted a provincial environment code, which defined the policy and organizational framework for environmental management. Utilizing and building on existing capacities at the provincial level, the code affirms the province's supportive role and provides at least two sustainability mechanisms for CRM: The creation of a provincial office on environment and natural resources, which includes a CRM division responsible for coordinating all CRM activities in the province; and the formulation and adoption of a provincial CRM framework for eventual integration into the Provincial Physical Framework Plan (PPFP) and the CLUPs of all municipal and city LGUs within the province. Integration into the PPFP and the CLUP, in particular, is strategic in that it builds CRM into the planning and review cycle that is already installed in the province. The CLUP contains the LGU's road map to development, with detailed resource use, annual investment, and action plans covering a five-year period. It is based on the PPFP, which directs municipal-level development planning over 10 years. Both the PPFP and CLUP go through an intensive review process at the provincial, regional and national levels, and are officially adopted through a local ordinance.

**NGA coordination.** CRMP initiated a number of mechanisms to improve coordination between LGUs and NGAs, and between the various NGAs with CRM mandates. A typical coordinating mechanism at the LGU level is the CRM TWG, whose membership comes not only from within the LGU but from assisting NGAs, NGOs, and donor projects as well. At the provincial level, CRM core groups also have a multi-agency, multi-sectoral composition and likewise serve as a venue for coordinating technical assistance and training services to LGUs. TWGs and core groups are typically created by an executive order from the governor or a MOA between participating agencies.

For coastal law enforcement purposes, the Coastal Law Enforcement Alliance in Region 7 (CLEAR7) was established through an MOU signed in June 2000 between regional offices of DENR, DA-BFAR, DILG, PNP-Maritime Group (PNP-MG), National Bureau of Investigation, Cebu City *Bantay Dagat* Commission, and some NGOs. In Bohol, the CLECs are composed of representatives from fishers' organizations, LGU executive and legislative branches, PCG, PNP-MG, PIA, and civil society.

The development of the publication *In Turbulent Seas: The Status of Philippine Marine Fisheries*, the most comprehensive, up-to-date profile on the Philippine marine fisheries sector to date, was a collaborative undertaking of key government agencies and academic institutions involved in fisheries research, management and regulation. The work focused on depicting the extent of overfishing in the Philippines by consolidating data and information generated by various groups nationwide, for future policy and management guidance.

Another recent initiative to restructure and strengthen the national government's role and supporting machinery for CRM is the CMMO under the DENR. CRMP facilitated the establishment of the Office, and assisted in its organization and operationalization. The CMMO now serves as the primary coordinating agency of CRM programs, technical assistance and services emanating from the national government.

**CRM Certification System.** To encourage individual LGUs to continue to contribute to the national database on CRM, the Project devised a CRM Certification System that also serves a double purpose: as a guide for LGUs to evaluate their progress and plan their next steps, and as an incentive system to motivate LGUs to stay within the CRM process.

The Certification System was developed to catalyze annual M&E and validate results by an independent multi-sectoral body. CRMP promoted certification as a voluntary process where a municipality may submit the results of annual M&E to a regional certification committee, composed of relevant NGAs, NGOs and academic institutions, for validation. (Courtney *et al* 2002)

As of mid-2004, a total of 39 LGUs had submitted to the certification process; of these, 21 Learning Area LGUs and 1 Expansion Area LGU were certified at Level 1 CRM implementation (Table 3.4).

The Certification System emphasizes that CRM is a continuing process that consists of many small steps, each building on the others (Figure 3.6). It defines three levels of performance benchmarks: beginning, intermediate, and advanced (Table 3.5). Beginning level benchmarks denote successful implementation underway; intermediate level benchmarks show successful implementation; and advanced level benchmarks address sustained implementation and socio-

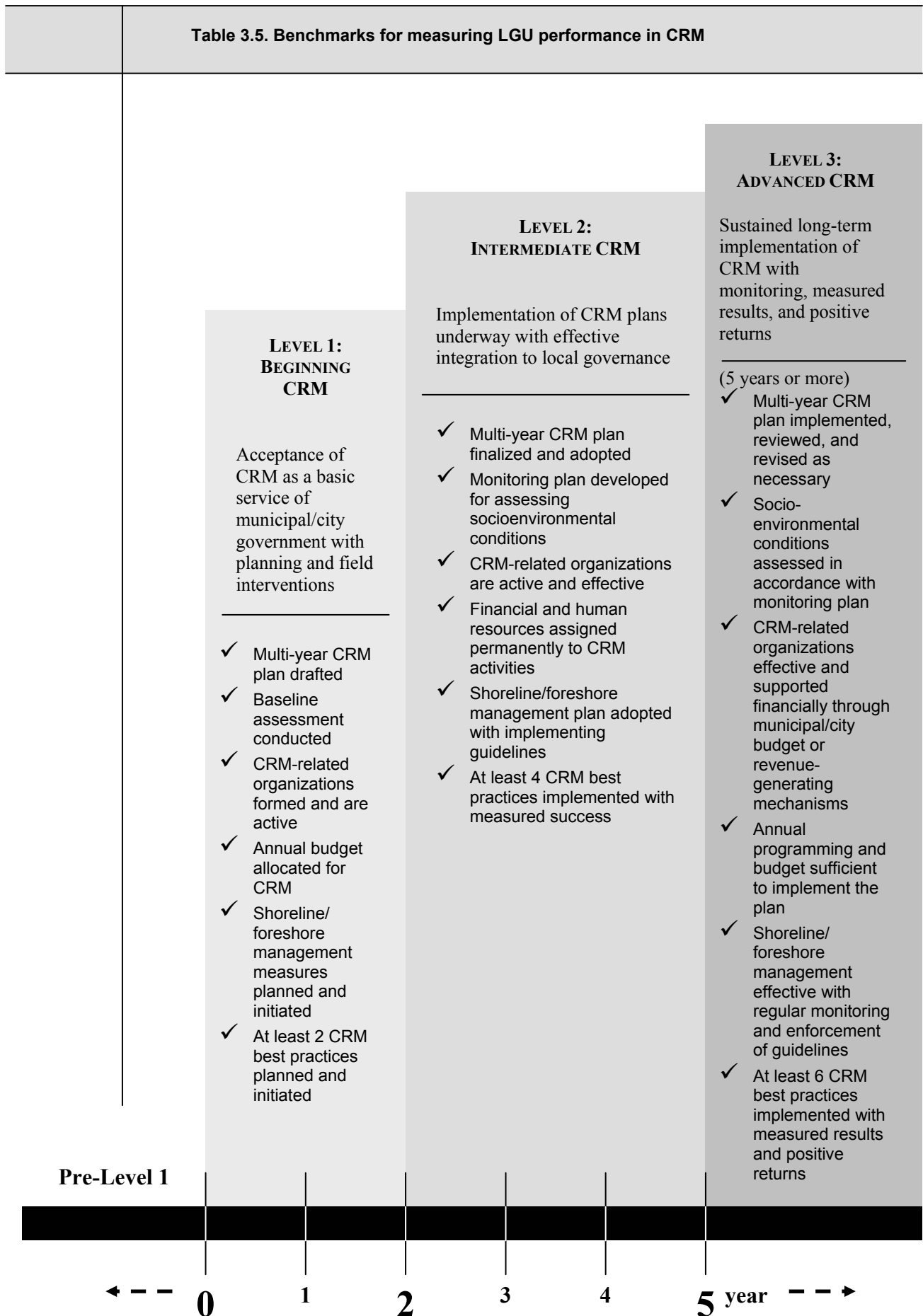
environmental improvement. Indicators and activities for each benchmark are incorporated in the MCD. (Courtney *et al* 2002)

This stepladder approach encourages the LGU to plan on “small wins”, which help to sustain support and momentum, and sets definite timelines for review of successes (and failures), which in turn generate valuable lessons that can be inputted into the planning cycle.

**Table 3.4. CRM-Certified LGUs (Level 1) as of June 2004**

<b>Province</b>	<b>Municipality</b>
Davao del Sur	Hagonoy Sulop Malalag Padada
Sarangani	Glan Malapatan Alabel General Santos Kiamba Maitum
Bohol	Getafe Inabanga Buenavista
Negros Oriental	Dumaguete City Dauin
Cebu	Sibonga Alcoy Dalaguete Samboan Moalboal Dumanjug
Masbate	Masbate City

Table 3.5. Benchmarks for measuring LGU performance in CRM





## Chapter 4

# Managing the Project: Performance and Lessons

*The Project will endeavor to apply business management principles in managing the resources...[and] stress cost-effectiveness in management, product delivery and customer service. Management decisions, proposals and activities must be vetted against the question, “How will they support and enhance rapid replication and sustainable coastal resource management?” (USAID 1995)*

Many important lessons of CRMP relate, simply, to the management of the Project itself. A key management objective was to deliver the desired results in the most timely and most cost-effective manner. CRMP’s success in this regard was the product of prioritization, consistent management policy directions, excellent administrative support, good personnel incentives, efficient coordination and a strong focus on results, combined with a strong emphasis on process, flexibility, opportunism, inclusiveness, leveraging and a Project staff complement with an exceptionally good mix of skills and experience. These attributes are usually not discussed in project reports, but they provide many meaningful lessons that can be applied to improve the rate of success of CRM capacity initiatives. This chapter presents an insider’s view of the “backroom” operations of CRMP and the lessons in project management that they generated.

### Project Design and Organization

CRMP started in 1996 with the advantage of a design that reflected the lessons and experience of past and ongoing CRM initiatives in the Philippines. USAID had supported an initial project design that engaged key international and Filipino experts in coastal and natural resource management, some of whom had worked in the largest CRM programs in the country prior to 1995. These projects included the Central Visayas Regional Project supported by the World Bank, the Fishery Sector Program, supported by ADB and several smaller projects supported by USAID in the 1980’s. The good and the bad of these projects were considered in the design of CRMP.

When CRMP was bid out by USAID under the original name of “Sustain”, it also attracted potential contractors who invested substantially in the project design in an effort to add value to the initial design provided by USAID. Ultimately, Tetra Tech EM, Inc. (then PRC, Inc.) won the bid and provided much leadership to the implementation of CRMP through its personnel and organizational support systems.

A key feature of the design of CRMP was that it continued to evolve during the first 2 years of the Project until the results framework was formally adopted in 1998. The discussion in Chapter 1 of this report provides insight into the development of the results framework. A key outcome of this process was that the results framework provided a system that not only measured Project results but also provided guidance to the Project partners among LGUs and NGAs. Ultimately, as CRMP progressed, the results framework was adopted as the framework for CRM as a basic service among LGUs in the Philippines and is now the basis for monitoring and evaluating CRM programs among LGUs. Several of the CRMP results framework indicators were adopted in the MTPDP by highlighting the role of the LGU in improving coastal management, targeting “ICM adopted by 250 LGUs covering 3000 km of shoreline for the improved management of municipal waters by the year 2004.”

The internal design of the project reflected the primary thrusts of the Project Components at the national and local levels (Figure 4.1). In addition the organization chart for CRMP as of 2003 (Figure 4.2) indicates how various Project personnel related to each other within the larger components of the Project design. The organizational structure of CRMP was never very hierarchical but rather reflected a more horizontal spread of responsibility so that staff could easily communicate and share with others in the Project and learn how to perform multiple roles.

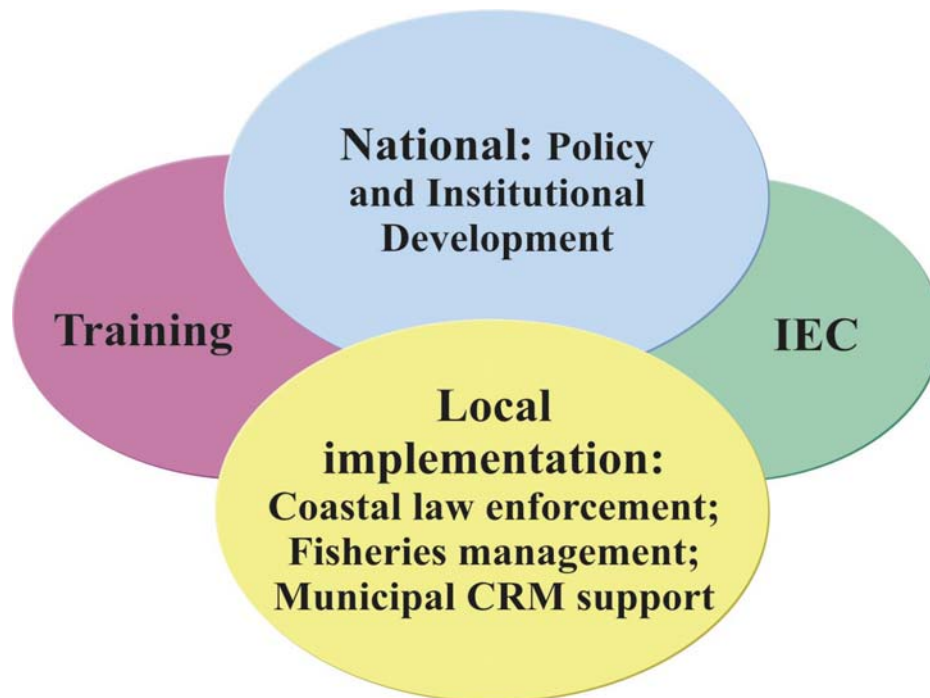


Figure 4.1 Major components of CRMP and their primary activities



### The CRMP Planning Cycle

The internal planning for CRMP objectives and activities was always very participatory and often ongoing. For the first three or four years of the Project, project-wide planning meetings were conducted every quarter, usually in Cebu City for the majority of the Project staff. The Project developed its annual and quarterly work plans in these meetings and reported on progress, issues and lessons learned. These lively meetings always generated enthusiasm to move forward and to

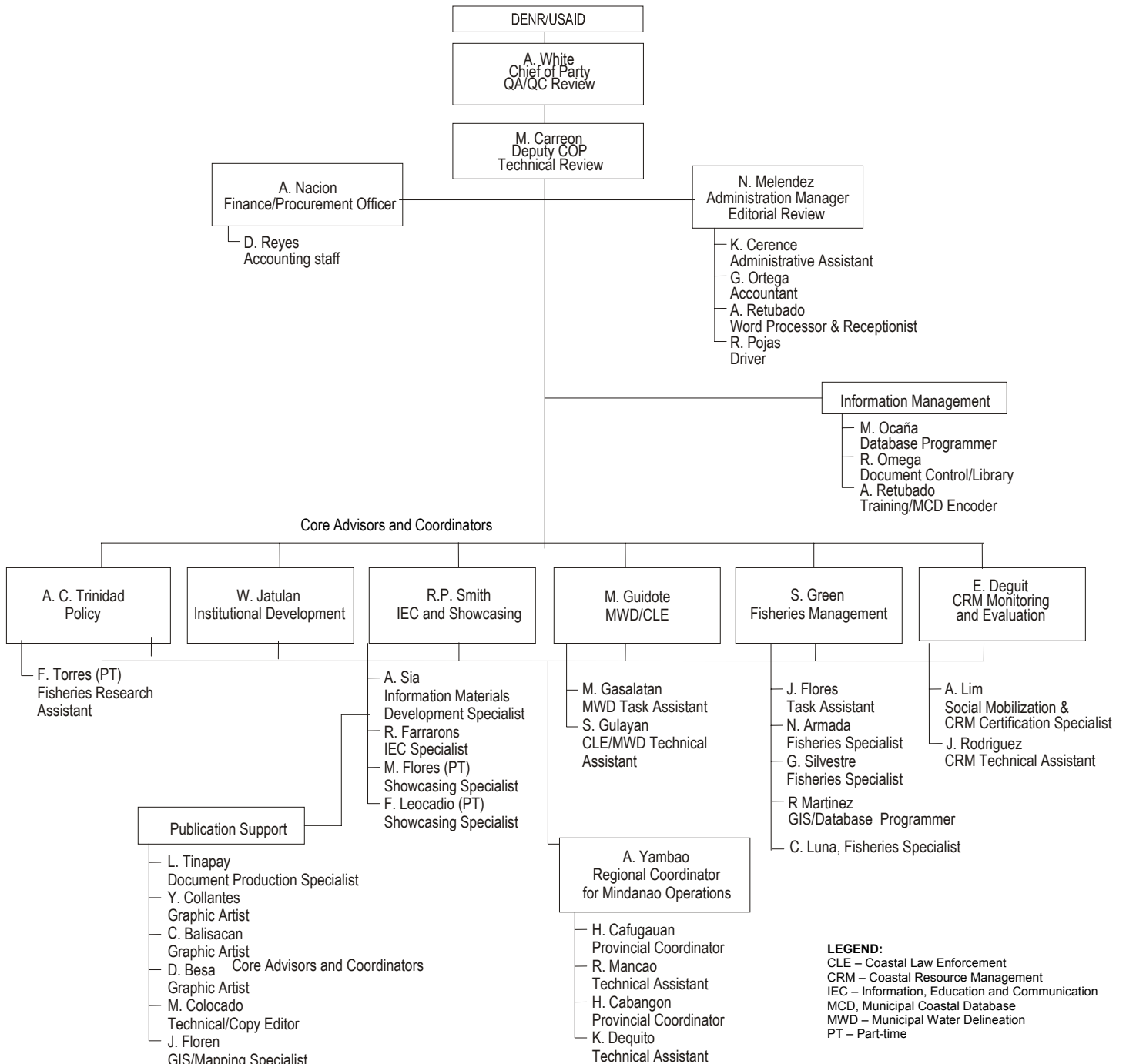


Figure 4.2. Organizational chart of CRMP in 2003

implement the work plans with vigor and rigor. Although decisions on project direction were not all made in quarterly meetings, they were discussed as needed informally and openly so that all concerned could share in decisions for changes or improvements in Project direction.

CRMP management was very strategic in making decisions so that opportunities could be used to further Project objectives. This required a flexible and open management style as reflected in the horizontal nature of the organization. Maintaining flexibility in making decisions allowed the Project to anticipate events and to be timely in its work. The downside was that not all Project staff and consultants knew what might come next since the Project moved quickly to take on new activities when an opportunity arose. Nevertheless, despite the relative fluidity of project decision-making all activities and decisions were always guided by the results framework. And, as the Project progressed, the relatively large investment in time and thought to develop a viable results framework was not regretted.

In CRMP, the boundaries between the Project staff and its internal functioning with Project partners were never great. Key partners from government and the non-government sectors always attended quarterly meetings and participated in decision-making. This philosophy of participation was followed in the central Project planning as well as in all the “Learning Areas” and within the national policy and institutional development components. Thus although all partners could not possibly attend all meetings, key partners attended as appropriate depending on their level of involvement with CRMP and their organization mandates.

### **Management and Leadership**

CRMP management recruited the best talent in the CRM field while it also selected staff based on criteria broader than simply technical expertise such as:

- Those willing to learn and work outside of their comfort area or expertise;
- Those with innovative ideas on how to better achieve CRMP objectives;
- Those eager to work in a team environment among a range of people;
- Those able to grasp the bigger picture of what CRMP was doing;
- Those willing to give a little extra to make the Project a success.

Management encouraged the building of leadership among all Project staff. Leadership trainings following some of the ideas above were conducted and also encouraged in day-to-day operations of the Project. Such trainings also fostered a more common vision among Project personnel and partners so that the CRMP involvement became part of their identity. This strengthened relationships among staff and with Project partners by giving all concerned common goals and emotional ties to their success. Building leadership into management also had the

benefit of making people less afraid to celebrate successes and to laugh about failures while trying to learn together why failures occurred.

Management of project personnel is a major concern for all large projects for various reasons. First, people are hired for defined periods of time so there is some insecurity about tenure, and second, expectations for performance are quite high given the watchful eye of the Project supporter and the potentially inflated objectives that help win a project in the first place. These and other concerns put project personnel under a certain amount of stress and CRMP was no exception. CRMP addressed these issues by trying to make clear and doable objectives of work for each Project employee. It also attempted to show clear lines of communication for every person so that they knew who to go to for support and other needs. Although these basic considerations of project management are a given, CRMP did well in this regard. Key points of relevance for personnel management in CRMP included:

- Keep people informed of what is going on as promptly as possible;
- Encourage a common vision for objectives for all persons in the project;
- Reward leadership but show compassion for problems and lesser achievers;
- Be open to discussion and listening so that problems do not fester; and,
- Be fair and gender-sensitive with all concerned and in all activities.

A management function that sometimes does not get enough attention is management of information within a project. CRMP generated tremendous amounts of information in various forms, and to an extent, the essence of the Project was information management. Also, as the Project matured, the demand for all this information increased many times over. People working effectively within a large and complex project need easy access to information, and as the body of this information grows, the systems to deal with it also need to grow and remain responsive and functional. The information referred to covers a range from simple accounting documents and summaries to a complex array of technical documents either generated internally or from external sources. The technical library of CRMP alone has about 5,000 entries and this does not include any of the administrative papers or information that must be referred to from time to time. Having easy access makes every person's job easier and makes the project more efficient and effective as it grows older. CRMP addressed information needs as follows:

- Installed a standardized accounting and paper routing system that all understood;
- Set up a Project library using a simple software program called Endnote;
- Set up a physical library space that follows letter code by subjects for filing;
- Instructed Project and non-Project personnel in how to use the library system;

- Maintained a database for all project results as stipulated in the results framework that was periodically updated for semiannual and annual reports;
- Maintained a database for all project-related field data from resource assessments, mapping, surveys and other sources for easy access;
- Maintained a database for all publications of the Project showing its current inventory and where it had been distributed and to whom to validate requests;
- Maintained a simple filing system for pertinent Project documents.

Even with these measures to assist with information management, flow and retrieval, it was not perfect since it is only as good as the persons using the system. Thus periodic training and reminding about the importance of updating the system and keeping consistent records was an ongoing process and was rarely automatic.

### **Quality Control**

Tetra Tech as a company requires a system of quality control in all of its endeavors. The existing company system for Quality Assessment (QA) and Quality Control (QC) was adopted by CRMP as standard procedure for all documents and publications produced by the Project. Although tedious at times, it served the Project well in terms of providing a consistent set of criteria, through selected eyes, to make sure that all progress reports, work plans and all major documents and publications were scrutinized for content, accuracy, style, format and overall appearance before they were released. Generally, there were assigned authors, and then documents were passed through reviewers and editors, with all projects of importance checked by the Deputy and Chief of Party positions. In this manner, the release of poor quality information or simple errors were avoided.

### **Personnel Management**

Personnel management is a major concern of all organizations as it was for CRMP. Needless to say, there were many interesting situations that arose over the nine years of CRMP with respect to personnel problems and concerns. In an effort to minimize problems and their impact on the Project and its work, a basic rule of management was to treat all parties equally and in a professional manner. Also, the Project organization, being quite horizontal, provided much opportunity for Project staff to be self-sufficient and responsible in their own right. This aspect of CRMP tended to make most staff and consultants enthusiastic and enterprising in their work.

The Project supported both regular employees and consultants. Consultants had short-term contracts with specific scopes of work. This helped focus their work and such contracts

were reviewed annually to make sure they were appropriate. All permanent employees underwent an annual personnel evaluation. This was performed among staff with each staff selecting several other, usually more senior staff, to do their evaluation. All staff evaluated the Chief of Party of the Project. This system helped staff to see their strengths and weaknesses and helped them to be more candid about themselves in their work.

**Cost-effectiveness**

CRMP developed a rigorous system of tracking expenditures so that over time the amount and percentage of budget used for different activities could be tracked and analyzed. In addition to regular budget items that were automatically accounted for, all personnel time was tracked according to time spent within different components and geographical localities of the Project. In this manner, the portion of any person’s time devoted for training, policy work, CRM planning in a given field area or administrative tasks for example, could be determined. This has enabled the Project to know what resources were truly devoted for field level work as opposed to national policy or project administration. CRMP could also determine actual costs to assist an MPA or a municipal CRM system. In addition, costs could be calculated per km of shoreline, given that CRMP used km as one results indicator.

**Table 4.1 Proportion of expenditure by budget line item (1996-2004)**

Categories	% of Expenditures
Salaries and Wages	14
Fringe Benefits	5
Overhead	6
Consultant Allowances	4
Travel and Per Diem	5
Subcontracts	37
Other Direct Costs	7
Commodities	2
G&A	6
Fixed Fee	4
Primary Components:	
Mangrove Reversion Operations	0
Information/Education/Communication	6
Research/Technology/Development	0
Training Activities	4
Total	100

A breakdown of overall Project expenditures by general categories of expense is shown in Table 4.1. Personnel comprised a very large budget item given the technical assistance nature of the Project. A breakdown by Project component is shown in Table 4.2 that indicates the relative amount spent on local activities in capacitating LGUs in CRM. Calculating the average

Project cost per km of shoreline where improved management has occurred shows that there was an investment of approximately \$5160/km over 8 years or about \$645/km/year. If the actual expenditure at the local level is used to calculate these averages, the km cost would be less than 50% of this amount. It has been estimated separately that a typical LGU with a variety of coastal resources covering 20 km of shoreline should be spending at least P1million annually for CRM or about P50,000 (\$900) per km of shoreline. This is above the national average by about 2 to 3 times but there are LGUs within CRMP assisted areas that now spend over P1million annually for their CRM program. The average, as explained in Chapter 2, is slightly less than P500,000 per year per municipality.

**Table 4.2 Proportion of total expenditures by implementation level and activity (1996-2004)**

<u>Implementation Level/Activity</u>	<u>% of Expenditures to Date</u>
CRM Core Activities/Administration	51
Performance Monitoring	1
Policy	8
San Vicente, Palawan	3
SE Negros Oriental	3
Olango Island, Cebu	3
NW Bohol	3
Malalag Bay, Davao del Sur	2
Sarangani Bay	2
Multisectoral Coordination	1
Silliman Marine Laboratory	5
Mangrove Management	5
Expansion Activities	<u>14</u>
Total	100

### Lessons Learned in Project Management

**The first step is always the most daunting.** Starting up a capacity development project as encompassing as CRMP is often the most difficult part of project implementation. Getting the proper support components – including administrative systems – up and running proved critical for CRMP, as it gave everyone, including field staff, the sense that a systematic management process was in place, and that they had a “home base” from which to operate, that they could rely on.

**Set clear, measurable, doable targets.** This advice was sometimes difficult to follow. As noted in Chapter 1, the initial CRMP result indicators contained in the SOW (USAID 1995) had to undergo an intensive and lengthy review and revision process that took up more than two years of the project. Without an approved results framework and indicators (Chapter 1) at the beginning of the project, CRMP could not establish some pre-project baseline conditions against which it could measure the successes or failures of particular interventions (CRMP 2000). For the Learning Area Coordinators, the 1998 CRMP revised results framework (Figures 1.2 and 1.4) provided clear

directions on what specific pressure points to focus on and which activities and issues to prioritize, thus helping them to avoid the trap of taking on too much work without any clear idea of what needed to be accomplished.

**Provide strategic management directions, not tactical details.** A common results framework is useful, but a cookie-cutter approach to managing field-level project activities does not work effectively in the unpredictable environment in which capacities in CRM should be built. In this environment, timeliness is of the essence, and to achieve timeliness and provide rapid response when requested, one must be flexible and adapt to the realities of one's working environment. The success of CRMP was as much a factor of a well-defined results framework (Figures 1.2 and 1.4) as well as flexible operational policies. Flexibility allowed CRMP to respond in an appropriate and timely manner to opportunities and challenges that surfaced, without warning, during implementation. Project leadership focused more on the bigger picture, allowing Learning Area staff, closely in touch with the realities of the environment in their areas, to do the micro-managing. This resulted in innovation, which in turn resulted in new permutations on old approaches, and novel strategies for capacity development. This built CRMP's reputation as the primary source of state-of-the-art CRM technologies in the Philippines.

**The process is as important as the result.** The objective of CRM is sustainable use and better management of coastal resources, as indicated by an increase in fish abundance and improved coastal habitat conditions. Achieving this objective, although essential, is not the whole point since the process of getting there is equally, if not more, important. That CRMP's results framework (Figures 1.2 and 1.4) provided for monitoring of both progress and outcomes proved to be particularly useful. Compared to the time horizon required to effect the many institutional and social changes needed to bring about sustainable coastal development, CRMP's life was but a fleeting moment, not long enough to say with certainty, for instance, that it had eliminated the deep roots of fishery problems, or that real sustainable use was reached. It was important for the Project to know it was moving in the right direction, progressively reducing obstacles to CRM, and achieving success that built on previous successes.

**Provide for "check-in" time.** Managing a project like CRMP with many broad and complex concerns necessarily entails regular progress monitoring, to ensure that field activities remain aligned with overall project directions and objectives, and that everyone is kept up-to-date and moving in step with the rest of the team towards the same goal. CRMP Learning Area activities were guided by quarterly planning and progress meetings. The meetings helped prepare for the compilation of quarterly reports to USAID and counterpart agencies and served as a forum to discuss program progress, identify major constraints, summarize lessons learned, do reality checks and recommend adjustments. Despite limited time spent on deliberate exchange and sharing of experiences between Learning Areas, the documentary outputs that resulted from these meetings provided useful reference points and information that staff members could use to plan their next steps in a systematic manner.

**Information management is key.** Complex projects generate copious amounts of information essential to decision-making and planning. A good information storage and retrieval system is therefore essential to ensure efficiency of project operations. Recognizing this, CRMP invested in the development of an information management system to handle both externally sourced and internally produced publications, papers and other literature on CRM, and provide timely information to both the Project and the external public. Considerable time and effort was also spent in the development of the MCD (Chapter 3) in order to automate the organization, analysis and reporting of data on CRM activities at the municipal level. Although primarily intended for use by its clients (both NGAs and LGUs), the MCD also served as an internal project management and assessment tool, allowing the Project to monitor compliance with CRM in its Learning and Expansion Areas and compare this with the level of CRM activity in other areas.

**Invest in processes that generate their own momentum.** Project implementation in the complex setting such as the one in which CRMP operated would never prosper if one were to micro-manage each and every detail. There were individual activities of CRMP that needed constant and close monitoring, so where it was possible, CRMP invested in activities and processes that, once started, built their own momentum. For example, at the outset, CRMP intended to extend its reach to as wide an audience as possible through information dissemination. By investing in the development and maintenance of its own web site, [www.oneocean.org](http://www.oneocean.org), CRMP gained – with virtually no investment in advertising and promotion – a worldwide audience (almost 60 countries and territories) for the Philippine CRM cause, while spreading the word about best practices that tested well in the Philippines and could find application elsewhere.

**Don't be afraid to take risks.** Innovation necessarily entails risks, and CRMP took calculated risks in innovating new approaches to mainstreaming CRM in the local and national agenda, for example, or taking the expansion route through the province. Although donor projects must strive at all times to be politically correct, some tough diplomacy is sometimes required to push certain agenda that are perceived as not entirely politically palatable, and this also entails some risks that CRMP took when the issue was crucial enough to warrant it.

**Social capital is a priceless commodity.** One of the most precious assets on which CRMP built its success was the social capital that individual staff members brought in when they joined the Project. The Philippines has a highly personalized environment, where “who you know” can literally open doors. Many key institutional and sector partnerships evolved out of the personal contracts and connections of CRMP staff members. Friends and friends of friends greatly facilitated the introduction of CRMP to the country's top leaders in government, media, business, NGOs, the academe, the church and even the entertainment sector (CRMP 2000). Such introductions resulted in enduring relationships that the Project was able to tap to help push its agenda.

**Celebrate both small wins and big successes.** Project management and all staff learned by that celebrating a success (big or small) in some manner paid back large rewards down the road.



Simple recognition of a job well done to formal ceremonies with awards exemplifies how the Project publicized a success. Rewards came in the form of a dedicated and loyal staff, a strong project identity, partners that felt part of the team and increasing demand for CRM among local and national stakeholders through the positive news generated from celebrating success.

**Everything boils down to quality communication!** Keeping the lines of communication between CRMP leadership and the various Project components open at all times was essential to ensure that all the different pieces in Project implementation fit together as parts of a single, whole process. Where they were available, modern telecommunications technologies, including e-mail and SMS, as well as field visits by home office Project management staff to the Learning and Expansion Areas, greatly facilitated communication. But more important was the manner by which the Project's general directions and vision were articulated and communicated to everyone who was involved in CRMP, so that everyone had the sense of being a part of the bigger picture and contributing to a process that was national in scope with inter-generational implications. In addition, all Project documents and publications underwent a rigorous quality control process. This ensured all concerned, that when the documents were completed, that they could be trusted and used with confidence.



## Chapter 5

# Challenges for the Future and Sustainability

*The National Government must continue to provide leadership in monitoring and evaluation of natural resources at the national level and provide technical assistance to LGUs and communities. (USAID 1995)*

A field survey conducted in 2004 to assess the impact of Project interventions on LGU operations provided valuable insights on how CRM was perceived by key coastal managers in the CRMP Learning Areas, what worked at the field level, and an indication of the prospects for sustainability of current CRM initiatives. This chapter presents the findings of this survey, and then zooms in on key sustainability issues and factors learned from CRMP as a whole.

### **What Worked at the Field Level—CRMP Field Assessment Findings**

#### *Objectives and scope of field assessment*

CRMP contracted a field assessment of selected LGUs during 2004 to assess the extent of CRM implementation in CRMP-assisted municipalities and communities. The assessment documented what CRM activities were still operating successfully after CRMP had ceased to provide direct technical assistance. It also identified factors that contributed to the internalization of CRM planning, implementation, monitoring and evaluation processes within the LGUs concerned. The key objectives of the CRM field assessment were (Paredes and Balane 2004):

- a. To assess the level of CRM field implementation among selected LGUs using the CRM planning framework and the CRM benchmarks;
- b. To determine how useful is the LGU's data management system in relation to CRM implementation and M&E;
- c. To identify problems that LGUs face in sustaining their CRM programs;
- d. To identify which of the CRM benchmarks need to be pursued and prioritized by LGUs; and,
- e. To generate recommendations to sustain and further enhance the mainstreaming of CRM in local governance.

The assessment covered five major aspects of CRM at the local government level, namely:

1. CRM planning process;
2. CRM implementation structures;

3. M&E;
4. Trends and impacts; and,
5. Sustainability.

The five provinces covered in the study represent all the initial Learning Areas of CRMP except Palawan. These were Bohol, Cebu, Davao del Sur, Negros Oriental and Sarangani including General Santos City. Data were gathered through qualitative survey methods including focus group discussions, key informant interviews and review of secondary information and project documents. Surveys involved discussions or interviews with CRM TWG, multi-stakeholder groups involved in implementation of CRM at provincial, city or municipal levels and various local government staff. The sample of 17 LGUs included 11 CRM-certified (Level 1) and 6 non-CRM certified municipalities and cities. These LGUs were deliberately selected on the basis of their varying levels of depth, intensity and extent in CRM implementation. Community visits were also made to examine selected CRM best practices.

### ***Key Results and Findings of the Field Audit***

**CRM planning.** The basic CRM planning and implementation process shown in Figure 3.1 was first analyzed from the perspective of the LGUs participating in the field audit. Key findings were:

- LGUs easily identified key activities of the CRM planning process that follows the process through from PCRA, profiling, action planning to M&E and demonstrated a considerable degree of knowledge and internalization of the processes in CRM planning.
- LGUs recalled a focus on participatory planning involving the communities, various stakeholders and LGU staff but noted less emphasis on the more formal M&E activities.
- Most LGUs adopted biophysical assessment, social preparation, education and governance activities as continuing activities.
- The most common participants in the CRM planning process were LGUs, NGOs and some businesses, and NGAs (primarily, DENR and BFAR).
- LGUs noted the essential roles of NGOs, academe and selected NGAs in providing technical assistance for biophysical assessments and planning, resource persons, and support for livelihood and for sustainable financing.
- LGUs listed immediate benefits from undertaking the CRM planning process as: enhanced governance and institutions, more appropriate plans, increased capacity of LGU staff, formation of CRM-related organizations, better law enforcement and others.
- Biophysical changes were not directly associated with the CRM planning process *per se* as most said that such take a long time to become obvious and result from CRM implementation. A significant number of respondents however noticed positive biophysical changes over the course of CRM implementation (Figure 5.1).
- A major impact of CRM planning was said to be increased acceptance among the community for CRM and continued participation (Figure 5.1).

- A commonly expressed problem with the CRM planning process was the lack of logistical and financial support to take the process to full implementation.
- The easiest phase of CRM planning was said to be Phase 1 (issue identification and baseline assessment) for which resources are most often made available.

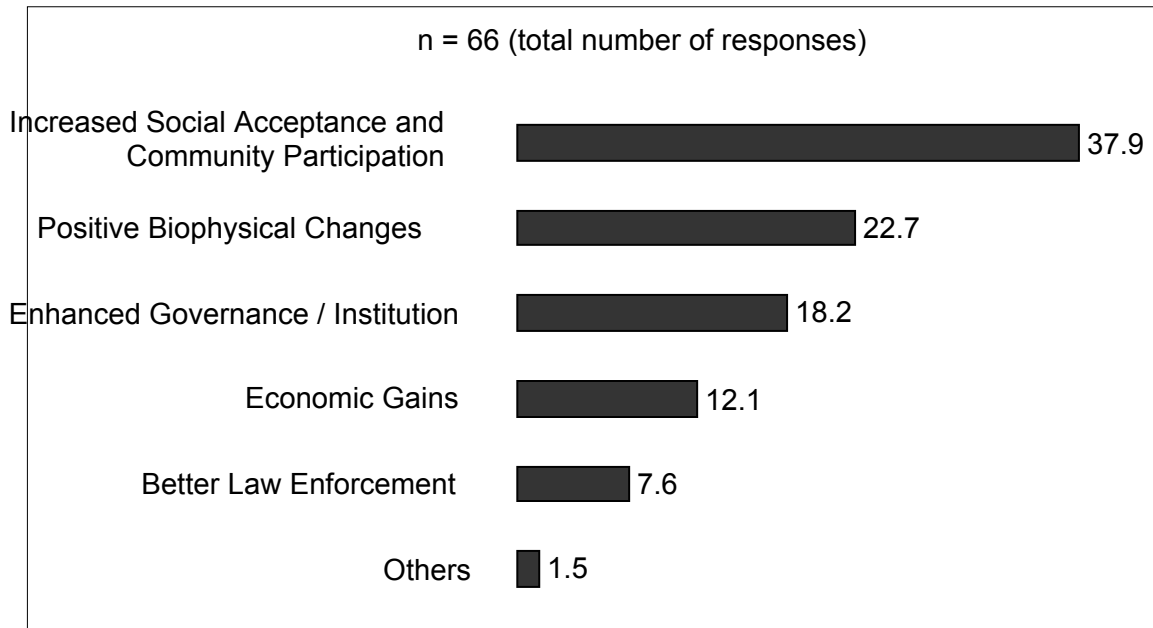


Figure 5.1 Perceived positive impacts of the CRM planning process (percent) (Paredes and Balane

**CRM implementation structure.** The entire sample of municipal and city LGUs in the field assessment said they have an existing implementation structure for CRM, and 3 of the 5 provinces said they have an implementation structure. The usual location for CRM in the municipalities and cities is with the MAO. For provinces, 2 of the 5 surveyed have an environment office with an assigned CRM desk officer. All the sample municipalities and cities have a CRM plan being implemented while only one province, Davao del Sur, has a province-wide CRM plan. The lack of provincial CRM plans was noted as a weakness that would inhibit effective support to their municipal and city CRM programs.

Most LGUs sampled said the implementation of CRM is legitimized and strengthened by the passage of municipal or provincial council ordinances. They also said technical assistance from DENR and BFAR as well as the MAO or MENRO is often essential. At the same time, they noted that CRM implementation is limited because of inadequate staff and the absence of a CRM Division or unit. Provinces cited lack of staff and funds as the primary problems affecting their CRM implementation.

**Monitoring and evaluation.** CRM-certified LGUs said CRM benchmarks are important to the success of CRM because they improve implementation by setting a standard, involve stakeholders in the process, are a basis for planning and budgeting, help in getting external funds for technical assistance, generate LGU administrative and legislative support, and strengthen awareness and ownership of CRM activities. LGUs identified CRM benchmarks that are doable and more difficult and those they recommend to be sustained. Those considered easy and doable include:

- a. Local legislation;
- b. Multi-year CRM plan;
- c. Annual CRM programming and budgeting;
- d. Multi-institutional collaboration for CRM; and,
- e. MPAs.

Those CRM benchmarks considered more difficult include:

- a. Upland and/or watershed management;
- b. Municipal water delineation;
- c. Shoreline and foreshore management;
- d. Fisheries management; and,
- e. Coastal and environment-friendly enterprise development.

The CRM benchmarks that are recommended and must be sustained include:

- a. Coastal law enforcement;
- b. Annual CRM programming and budgeting;
- c. Mangrove management;
- d. Solid waste management; and,
- e. MPAs.

The LGU sample identified key factors to facilitate the achievement of CRM benchmarks as: Multi-partnership and collaboration, LGU support and technical assistance support. Constraining factors were noted to be the lack of support of various kinds from LGUs and NGAs, poor technical capacity and facilities for CRM, political forces and poor community acceptance of the need for CRM.

LGUs recognized the need for good data management to perform M&E. About half of the sample used the MCD as a data reference and source of baseline information to evaluate their CRM program. The strengths of the MCD were noted to be as a tool for planning and budgeting and for documentation of the LGU's CRM initiatives. Most MCD users were from within the LGU: the MAO, provincial planning office and legislative councils. Some users from outside the LGU included, in particular, the academe, DENR and BFAR. Key limitations on maintenance

of the MCD were said to be the time and expertise needed to collect, process and encode the data for the MCD, and the lack of computers and software that always functioned properly.

About 50% of the sample said the CRM certification process...“has brought a high level of morale to the LGU and its staff.” This is attributed to the recognition given to their efforts and initiatives in managing their coastal resources. They also maintained that CRM certification has improved their CRM implementation. They said the process of certification has helped them better articulate CRM implementation and pay more attention to M&E. In several cases, it gave them more access to additional funds for projects and livelihood activities.

LGUs that had not participated in the certification process cited a range of reasons for their non-participation from a lack of computers, personnel and budget to prepare the certification papers and reports, to a lack of incentives to make the effort worthwhile. Despite such constraints, however, the LGUs surveyed were generally in favor of the CRM certification process and recognized its benefits.

**Trends and impacts of CRM.** All sample LGUs noticed changes in both the biophysical conditions in the coastal resources as well as the socio-economic status of coastal residents. These changes were observed by most LGUs through technical and formal monitoring and assessment reports, personal testimonies from CRM implementers and observations from residents. Perceived socio-economic results include increase in fish catch for small fishers in most CRM-certified LGUs and benefits from other livelihoods. Much improved participation of community groups and residents was cited as a positive spin-off of CRM planning and implementation. This was noted to result in improved stewardship of coastal resources, particularly coral reefs, mangroves and nearshore fisheries. Improved compliance with the law was another commonly stated outcome. This is particularly true when the LGU has a formally organized law enforcement team.

A positive impact of having an initially successful CRM program was that LGUs found additional opportunities for funding and technical assistance more readily. This has encouraged some to expand their CRM program to focus on sustainable financing through ecotourism and user fees among other approaches to continue their programs.

**Sustainability factors.** Eight of the 11 CRM certified LGUs studied maintain that there is a high probability that they can sustain their CRM programs. For the non-certified LGUs, 3 of 6 said that there is “some” chance they can sustain CRM. Key factors supporting sustainability were noted as: annual budget allocation for CRM, having CRM fully institutionalized within the LGU, the existence of strong and well organized POs and the presence of favorable political support (Table 5.1).

Table 5.1 Key sustainability factors from the LGU field audit

Responses	CRM Status	
	Certified N= 69 (%)	Non-Certified N=37 (%)
Annual budget allocation for CRM	20	16
Creation of a CRM office / desk or full time personnel	7	8
Province support or leadership	1	
Existence of strong/organized POs	13	8
Existence of strong collaboration among partners	10	8
Strong CRM implementing mechanism/structure	4	
Presence of political will	12	5
LGU priority	3	5
LCE & SB support	6	8
Logistics and materials support for coastal law enforcement	6	8
Presence of LGU technical capability in CRM	1	8
Established incentive mechanisms for CRM certified LGUs	4	
Others	7	3
No answer	1	3
Institutionalized CRM	3	16
Livelihood support to communities		3
Total	100	100

The LGUs surveyed suggested areas for emphasis in future projects, similar to CRMP, to increase the chances of sustainability such as:

- More technical assistance in biophysical and other types of monitoring.
- Better approaches for municipal-wide CRM as opposed to only pilot barangays.
- Making a clear transition from a “project” to the government agency responsible.
- More IEC materials and training for LGU officials on CRM and leadership.
- Direct DENR intervention and assistance in foreshore management.
- More provisions for alternative livelihood.
- More focus on value formation and strengthening of resource management organizations.

Key interventions that were noted to be essential in a successful CRM program and that need more attention in general included: coastal environment friendly enterprise development, coastal law enforcement, mangrove management, solid waste management, foreshore management and municipal water delineation.

Also noted were issues that could hamper the sustainability of current CRM initiatives, among them, the lack of those supporting factors already mentioned and poor technical support from NGAs and changes in political leadership. To a considerable degree, these echo earlier assessments by CRMP of the governance systems that affect service delivery in CRM.



### Analyzing major sustainability issues

One of the most important aspects of CRMP’s work involved forward-looking assessments of the governance systems that affect service delivery in CRM. These assessments – most of them done collaboratively with other projects and organizations – affirmed, as discussed in preceding chapters, the tremendous gains that have been achieved in the last six years by capacity initiatives for CRM. They also, however, pointed to serious capacity gaps in systems of local governance and CRM that must be addressed to ensure that the gains are continued and developed further.

Since the enactment of the LGC in 1991, the Philippine government has been pursuing a decentralization policy that devolved many CRM-related functions to the LGU. (Table 5.2) The goal of decentralization is to enable government to respond quickly to local needs and conditions by bringing it closer to the people. This goal presupposes that authority and resources as well as responsibilities are appropriately “decentralized” so that LGUs and civil society organizations can participate more effectively in governance. It also assumes that organizational structures are supportive of local service delivery (UNDP 1997b). Figure 5.2 shows a schematic illustration of how institutions can be realigned as an integrated system supporting local CRM implementation. As has already been noted, capacity gaps occur throughout the system that must be addressed to ensure that local CRM initiatives are sustained.

**Table 5.2. Policy directions for improved local governance and CRM in the Philippines**

From	→	To
<b>Improved local governance (adapted from Ellison 1997)</b>		
Public administration		Public management
Centralized, uniform, “top down” service		Decentralized, diverse, localized service delivery
Self-sufficiency		Inter-linked sectors
Hierarchical control		Empowerment
“Upward” accountability		“Outward” accountability
Standardized procedures		Performance orientation
Apolitical civil service		Advocacy-oriented civil service
Individual skill building		Organizational competence
<b>Improved coastal resource management (adapted from Courtney and White 2000)</b>		
Agri-based fisheries development		Coastal resource management and protection
National government control and regulation		Local government delivery of CRM as a basic service
Top-down planning by national government		Upward, participatory planning and co-management regimes
Input indicators used to monitor activities		Output indicators to benchmark local government performance
Single local government interventions		Inter-local government and multi-sectoral participation in co-management regimes
Individual skill building in CRM		Organizational capacity building in CRM for local government, resource management councils, NGOs, civil society

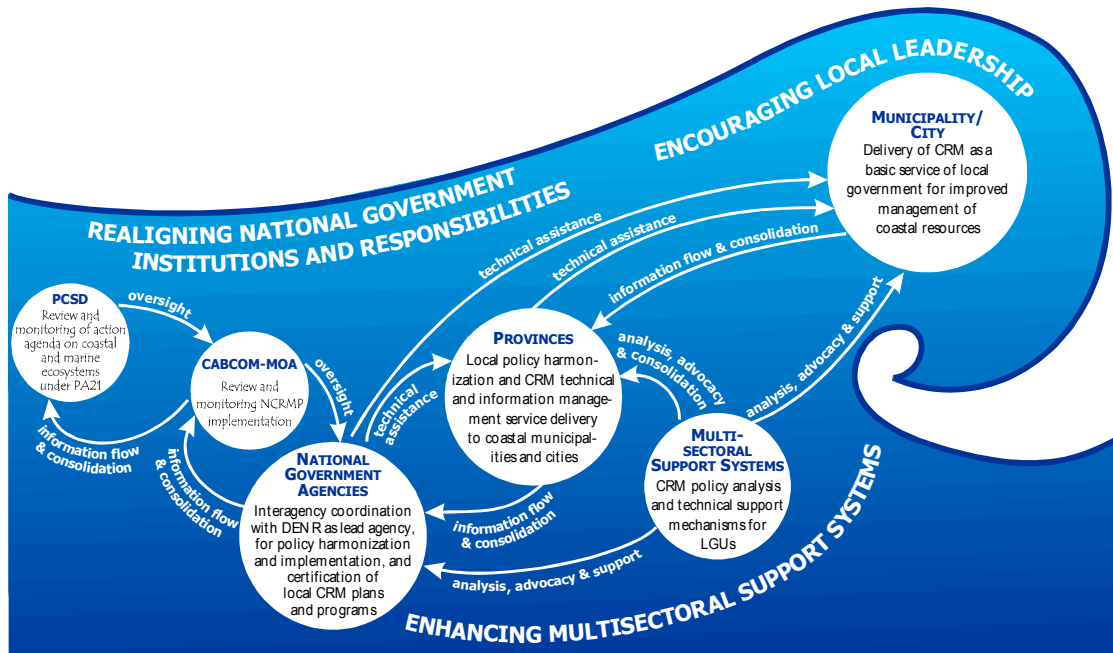


Figure 5.2. Multi-sectoral systems supporting local CRM

The landmark draft National Coastal Resource Management Plan (NCRMP, DENR 2001), developed by DENR with the assistance of CRMP and other DENR projects and programs through policy analysis, field studies and multi-sectoral forums, covers many of the key issues that continue to threaten the sustainability of CRM in the Philippines. Among the issues enumerated are lack of institutional capacity, inconsistency, and conflicts within NGAs and LGUs in the implementation of national CRM-related laws – issues that must be addressed through improved governance systems for CRM. The NCRMP is now summarized, very concisely, in a Draft Executive Order on Integrated Coastal Management.

### *Capacity Gaps at the Local Level*

There are two key aspects of capacity development where LGUs need assistance in order to effectively carry out and sustain CRM implementation. The first aspect relates to the technical requirements of project implementation, and the second concerns organizational and operational needs. Much of CRMP's effort at capacity building focused on developing technical capacities at the individual level. In most CRMP Learning Area municipalities, some level of competence in specialized technical functions, such as underwater assessments, mangrove management, and M&E, has been achieved. More importantly, in a number of areas, personnel and resource users have also been exposed to IEC interventions and learned to advocate and champion CRM within the LGU.

Nationwide, however, lack of technical expertise remains a top concern. As a result, most LGUs are unable to adequately perform their CRM mandates under the LGC and 1998 Fisheries Code. Currently, only the 113 coastal municipalities in the CRMP Learning and Expansion Areas have achieved beginning level benchmarks necessary to establish a fully functional municipal CRM system.

Much work needs to be done to address organizational and operational constraints. Although coordinating mechanisms – in particular CRM Core Groups, TWGs and in some LGUs, CRM offices – have been established at the municipal and city level in most CRMP areas, there remains a need to define more clearly and align the CRM functions of the different offices and units within the LGU, such as the municipal social welfare and development office for community organizing, engineering office for foreshore/shoreline management, and the agriculture office for fisheries. Capacity development must be pursued further to address critical institutional issues, such as lack of political will; lack of continuity between political term limits in the implementation of CRM and other environment programs requiring sustained effort; absence of and inconsistency between multi-year CRM plans, comprehensive land use plans (CLUPs) and municipal development plans; weak law enforcement capabilities; and inconsistency and conflicts between plans, programs, and legislation within and between local and national government.

While the national average annual LGU budget for CRM has increased substantially from Php108,000 in 1995 to about Php482,000 in 2003 (Chapter 2), this amount is still way below the investment needed for sustainable CRM at the municipal and city level. MFARMCs need to be established, strengthened, and financially supported as required under the Fisheries Code, to promote active participation by fisherfolk and coastal stakeholders. Meanwhile, the system must be geared up as demand for technical assistance is expected to increase further, with more LGUs beginning to plan for CRM, following the trend set by a growing number of LGUs that are already adopting CRM as a basic service.

An important supporting role that must be given greater importance is that of the province. Experience from CRMP's Expansion Areas has proven that coastal provinces are uniquely suited to foster harmonized local policies and programs through a provincial policy framework, provide technical and information management support services to coastal municipalities and cities, and thus contribute to the sustainability of local CRM programs. But, as in municipal and city LGUs, capacities still need to be developed in many provinces, in the context of both the technical and organizational requirements of CRM. Currently, about 10 coastal provinces or 15% of all coastal provinces nationwide have established provincial CRM units with budget allocations; a few are beginning to develop CRM framework plans to address the delivery of CRM as a basic service to coastal LGUs. The policy instruments and initial institutional arrangements installed in the provinces of Bohol, Davao del Sur and Masbate, for example, are good beginnings and models for other provinces, but they need strengthening to become fully operational. Capacity development aimed at improving provincial governance

systems must continue to ensure that these initial provincial initiatives and successes are sustained.

**Weaknesses in multi-sectoral support mechanisms.** Some of the most meaningful experiences in CRM in the Philippines relate to the participation of coastal communities, NGOs, academic institutions and private sector in co-management regimes at the local level. There are a number of mechanisms to promote community participation through the establishment of MFARMCs and coastal watch groups such as *Bantay Dagat* as well as participatory processes for assessment, planning, and M&E. With adequate capacity-building interventions, these mechanisms tested well in the CRMP Learning and Expansion Areas, but in most places, their implementation remains weak and often fragmented. In general, LGUs have not taken advantage of the participatory approaches in CRM assessments, planning, and M&E that promote multi-sectoral collaboration. While MFARMCs are required under the Fisheries Code, most lack technical and financial capacity to function properly as the advisory body on all aspects of CRM to the LGU.

While some NGOs have become excellent service providers to catalyze improved CRM, many others lack training and skills in catalyzing and facilitating local CRM and bypass the LGU and work directly with fishers, thereby losing important opportunities to mainstream CRM in the local government agenda. Academic institutions involved in research of the socio-environmental aspects of CRM can play a vital role by providing sound scientific studies and assessments needed for management decisions, but they too are under-utilized. In general, information flow from assisting organizations is unidirectional with feedback mechanisms to government decision-makers lacking.

**Inconsistencies, overlaps, and conflicts at the national policy and program level.** Farther away from the core level of the service delivery system, the gaps widen. Policy assessments undertaken by CRMP show that, higher up the government hierarchy NGAs involved in CRM have not kept up with the process of decentralization. Inconsistencies, overlaps and conflicts between national policies and programs have long existed, but devolution has magnified and dramatized their negative impact on service delivery. As the pace of devolution picks up, the need to realign government functions and policies toward supporting local initiatives in CRM becomes increasingly urgent.

NGAs with the bulk of the CRM-related responsibilities include the DENR, DA-BFAR, DILG (including the PNP), and the Department of Transportation and Communication (DOTC), in particular the Philippine Coast Guard (PCG). Since the devolution of major CRM responsibilities to local government in 1991, national government not only should have realigned and prioritized policies and programs toward the common goal of improving local government capacity to adopt CRM, it was also expected to provide consistent and clear policy guidance, training, and technical and financial assistance to LGUs, as well as monitor and evaluate the condition of coastal resources and progress of local management programs.

Instead, considerable inconsistency, overlap, inaction, and conflict continue to exist within and between NGA policies and programs related to CRM.

The proposed National CRM Policy points out that while some environment-related responsibilities have been devolved to LGUs under the LGC, DENR still retains important tasks, such as pollution control, the environmental impact system, management of nationally protected marine areas, and jurisdiction over mangrove forests and foreshore areas. Realignment of DENR functions toward assisting the LGU to implement environmental management systems has not been realized nationwide, as training and technical assistance is usually provided in selected *barangays* (villages) through the DENR's under-funded and understaffed CEP (now the Coastal and Marine Management Office or CMMO).

Moreover, within DENR itself, different offices have conflicting mandates and policies – some even posing a threat to coastal resources and the environment – and, often, there is no continuity between political administrations in program prioritization and implementation, a particularly critical issue in CRM and other environmental programs, which require sustained effort. Closer to the field, more specific operational issues hound the system: Foreshore lease agreements are routinely issued by DENR officers without consultation with LGUs, consideration of environmental impacts, or monitoring foreshore use. Monitoring of compliance of large coastal development projects with the Environmental Impact System is weak, if not altogether absent. Protection goals of DENR-administered protected areas are not achieved because mechanisms for consultation and co-management are not functional. And, overall, there is no long-term program for capacity building in CRM.

The CMMO is a step towards consolidating DENR's coastal management function, although it was hindered by an initiative to place the regional staff under the PAWB (Special Order 2003-742). Fortunately, at the national level, the CMMO has remained an autonomous office under the Secretary.

Like DENR, the DA-BFAR, the country's lead national agency in charge of fisheries, faces serious issues that hamper its ability to balance its mandate for increased production with sustainable use of the nation's fishery resources. Foremost among these is the current state of fisheries where municipal fishers, commercial fishing operations, and fishpond operators compete for the same degraded resources. Being principally responsible for the development and implementation of the National Fisheries Development Plan, issuance of commercial fishing licenses and FLAs, and monitoring fish stocks and catch limits, the DA-BFAR has traditionally held a bias for policies oriented to fisheries production and exploitation.

At the policy level, there is a pervasive lack of acceptance of the degraded condition of fishery resources, and poor understanding of the management measures required for sustainability. Provisions of the LGC and 1998 Fisheries Code related to decentralization, municipal waters and coastal management have yet to be institutionally internalized. Although

primary management responsibility for municipal fisheries has been devolved to LGUs, the bureau does not have a capacity development program for LGUs in fishery management; instead, line personnel often circumvent LGUs by providing technical assistance and training directly to marginal and municipal fishers. Also, significant conflicts exist between the bureau's mandates in the implementation of the 1997 AFMA and its mandates in the implementation of the Fisheries Code. These conflicting internal mandates create confusion at the local level, help perpetuate the use of unsustainable fishing methods and gear by both marginal and commercial fishers, and therefore call for a serious review (DENR 2001). A policy paper prepared by CRMP to examine the major issues related to AFMA can serve as starting point (Batongbacal 1999), and the major outputs CRMP's fisheries management component in 2003 and 2004 can be key contributors to the development of a Philippine fisheries management master plan designed to rationalize fisheries management and development in the country.

The landmark publication, *In Turbulent Seas: The Status of Philippine Marine Fisheries*, provides a snapshot of the current state of fisheries, and examines the state of implementation of fisheries management in the Philippines. It marks the first time that a wide variety of stakeholders came together and put their specialized information into one book, thus ensuring a clearer view of the state of the country's fish stocks and a solid basis on which managers and politicians can implement their management decisions and interventions.

The third NGA that must be engaged in the capacity development effort is DILG, which holds two key functions that can directly impact LGU adoption of CRM as a basic service: capacity development in governance, and monitoring of LGU performance. To assist LGUs in CRM service delivery and increase their capacity in environmental governance, the department must broaden its functions to include policy review and technical assistance in environmental and natural resources management, and work towards establishing collaborative relationships in CRM with DENR and DA-BFAR. Also, DILG has authority over the PNP, which performs all police functions over territorial waters and rivers and coastal areas. Currently, the ability of the PNP to enforce coastal laws at sea, is severely hampered by the lack of trained coastal law enforcement officers and equipment, including patrol boats, required to do the job.

### ***Closing the Gaps***

Many of the answers to current issues are already in the form of policy that needs only to be put in operation, with some refinements, if necessary. For instance, three important issuances made in the past few years directly address the need to coordinate the activities of NGAs and to eliminate or reduce their overlapping jurisdictions. First, the Fisheries Code of 1998 consolidated parts of many pertinent national laws into a single law that addresses fishing and the protection of the aquatic ecology. In addition, it reconfirms that municipal and city LGUs "shall be responsible for the management, conservation, development, protection, utilization, and disposition of all fish and fishery/aquatic resources within their respective municipal waters." However, amendments to the LGC should be considered to reconcile and clarify LGU mandates for CRM in light of certain provisions of the Fisheries Code.

Second, a Joint Memorandum Order (JMO) issued in mid-2000 by DENR and DA clarifies their respective authorities and jurisdictions over the management of fisheries and aquatic resources, and requires the two departments to coordinate in the implementation of the Fisheries Code. This JMO paves the way for harmonizing policies and policy implementation relative to CRM between the two departments. Mechanisms to involve other NGAs with CRM-related functions, however, still have to be established at national and regional levels for effective implementation of CRM-related laws.

And third, the 1999-2004 MTPDP, the implementation of which is coordinated by the NEDA, provides a national results framework for improving CRM. The MTPDP goals and objectives for coastal and marine resources targets *250 LGUs along 3,000 km of shoreline adopting integrated coastal management for the improved management of municipal waters by the year 2004*. NGAs together with LGUs can use the MTPDP as an integrated framework to harmonize and prioritize national and local policies and programs and align funding assistance to address priority local needs.

In addition, the development and application of a number of sustainability instruments and mechanisms are underway and need only to be pursued. These include the proposed National CRM Policy, DENR's newly created CMMO, municipal water delineation, and the results framework and benchmarking and reporting system developed and tested by CRMP (see Chapter 3). These instruments and mechanisms, as well as coastal law enforcement and financing arrangements, two critical success factors in CRM, are discussed below.

**National CRM Policy.** The Philippines already has a National Marine Policy, which was adopted in 1994 as an official response to the growing awareness of the importance of the marine sector and the ocean environment for national and international security. Following the adoption of the Philippine Agenda 21 in 1996, however, efforts were undertaken to revise this policy to cover principles of sustainable development. The revised policy would include a component on coastal and marine environment, which DENR, through CRMP, was tasked to develop.

The absence of a national CRM policy has been identified as one of the biggest hindrances to sustainable management and improved management of coastal resources in the Philippines. The policy proposed by DENR seeks to address this issue by building on CRM capacities that have been developed in the country in the last three decades. This option, as noted in the policy document, is more politically feasible than the massive policy, legal and institutional restructuring that some quarters demand. In the Philippines, as most knowledgeable observers agree, the existing legal regime is already sufficient. Some changes in laws and policies may be desirable, but the laws governing the management of coastal and other environmental resources are fairly characterized as excellent. Similarly, although institutions with responsibility for the country's natural and environmental resources might not be as well-structured as one might like them to be, the creation of new agencies is unlikely to be a suitable solution. Creating a new

agency or department is always difficult, especially when its success depends on the weakening or demise of existing agencies.

Rather than prescribe the creation of a new agency, the proposed CRM policy focuses on the LGU as the core implementer of CRM in the Philippines and NGAs as supportive of this function. It calls on NGAs to re-define their mandates and operational structure and foster a genuine collaborative atmosphere among one another, and defines leadership roles and responsibilities for specific policy actions, targeting LGUs and NGAs in particular. In addition, it offers a statement of long-term goals and a medium-term policy agenda for action for coastal management. The agenda focuses on encouraging local leadership to emphasize that CRM is a basic service of LGUs and that CRM planning is within the realm of LGU functions; realigning national institutions, in particular, DENR, BFAR, and DILG and redefining their mandates and responsibilities in support of CRM plans and programs of LGUs; and enhancing the effectiveness of multisectoral support systems to widen the operating vista for national support for CRM with specific strategies and responsibilities from government and NGOs.

Nationwide consultations are underway to solicit inputs from the widest possible range of sectors that may be affected by the policy, and to promote acceptance of policy provisions by ensuring that they are publicized and thoroughly discussed before adoption. The greater challenge, of course, will be to ensure that the policy, unlike many existing policies of government, can and will be operational across all sectors and up and down all layers of the bureaucracy, and that it will serve its purpose of realigning and harmonizing NGA mandates and responsibilities to support the CRM plans and programs of LGUs.

The Cabinet Committee on Marine and Ocean Affairs (CABCOM-MOA), which was established by presidential directive in 1994 to oversee the administration of the National Marine Policy and to consult with all concerned and affected sectors, will serve as oversight body to review policy implementation at the national level and as an integrative and monitoring body among the various agencies with CRM mandates. The DENR will be the lead NGA for coastal and marine management and liaison agency for multi-sectoral and multi-institutional collaboration in the implementation of the policy. In addition, DENR will be tasked to coordinate inter-agency policy review, analysis, and development as well as the provision of technical assistance, training and information support services to local level CRM implementation (DENR 2001). It is primarily for this purpose that the CMMO was created.

**Coastal and Marine Management Office.** The CMMO is the national coordinating office of the DENR for coastal and marine environmental management and development. Among its functions are to formulate and oversee the implementation of a National CRM Policy; provide overall policy guidance to the DENR in matters pertaining to CRM; provide technical assistance to NGAs, LGUs, NGOs and other organizations; coordinate the activities of the various CRM programs and projects operating in the country; and manage CRM-related data (maps, studies, MCD) (DAO 2002-08).



The CMMO seeks to address crucial issues related to the implementation of programs and the delivery of services in CRM. It is, for example, responsible for defining and setting up regular coordinative mechanisms within DENR and between NGAs to harmonize national policy implementation guidance on sustainable CRM; developing consultative and review processes that genuinely involve NGAs and LGUs; providing clear, consistent and integrated capacity building programs on CRM for LGUs; and coordinating delivery mechanisms within and between NGAs providing CRM technical assistance and training to coastal LGUs and communities.

A primary concern of the office is the establishment of a coordinating mechanism with DA-BFAR, particularly in the regulation and management of commercial fishing effort, management of migratory fishery stocks whose harvest in coastal waters needs to be regulated by LGUs, and the reversion of mangrove areas cleared for but not properly used as fishponds.

The issues the CMMO must tackle are well understood, and therefore its functions are fairly well set. Efforts must be taken to build into the office the capacities required for it to perform its mandates effectively. But in addition to technical capacities, there must also be a conscious effort to consider the other dimensions of capacity – leadership skills, professionalism, interpersonal and presentation skills, communication skills, and even attitudes, values and ethics. This will help ensure that the CMMO does not evolve into the command-control-do mode of the traditional NGA, but rather, an organization that is truly oriented towards assisting LGUs develop their own capacities in CRM service delivery to stakeholder communities, and, moreover, an organization that promotes a culture of efficiency, openness, accountability, transparency and client service.

**National benchmarking and reporting system.** As the office responsible for the management of data on coastal management, the CMMO is also tasked to establish a national M&E framework for local CRM plans and programs, and coastal resource uses and conditions. One of the major constraints the office faces in the performance of this task is the current lack of an integrated information management and reporting system for CRM at the municipal, provincial, regional and national levels. The MCD and certification system developed by CRMP (Chapters 3) provides a working model to fill this gap, but the mechanisms for its full operation at the different levels of government still have to be established. CMMO will have to put this mechanism in place, as well as work towards establishing a coordinated information-sharing system within and between NGAs with regulatory and enforcement mandates (DA-BFAR, PNP, PCG), to reduce if not totally arrest coastal resource use by repeat violators of the law (DAO 2002-08).

Good information management systems help organizations track the implementation of programs and projects, and are an essential ingredient in any capability-building effort, especially for cross-sectoral programs such as CRM. By making relevant information easily accessible and available, these systems make government more responsive to the needs of the public and therefore more efficient in its performance of its responsibilities. The best information management systems provide not only for efficient storage and retrieval of data, but also for free

flow, effective sharing and communication of data across the sectors involved in and affected by a development endeavor.

**Comprehensive land use plan.** Data and plans generated from the CRM process must be at some timely point integrated into the LGU's CLUP. This will enhance sustainability, because funding for activities is assured over each plan period. It is an efficient way to influence development directions for a broad range of sectors at the local level. A key objective is to get CRM into the coastal land use planning system, which in the Philippines is pretty well set, with review, M&E protocols defined at every stage. This makes it a compelling instrument for bridging gaps between planning and implementation in CRM. Indeed, one can influence the long-term directions of coastal area development of all municipalities in a province simply by expanding the scope of the Provincial Physical Framework Plan (PPFP) to include CRM. The PPFP is the reference point from which municipal land use planning proceeds, and the basis by which municipal CLUPs and their implementation are evaluated.

**Coastal law enforcement and municipal water delineation.** The bottom line in improving CRM in the Philippines is to improve compliance with laws, ordinances and plans. Law enforcement remains a weak link in the CRM effort, but there have been some advances in this area. Some mechanisms that worked well in CRMP sites include (Courtney *et al.* 2000):

- Improved technical and financial support to LGUs to develop and fully implement CRM plans
- Improved legal basis for local communities to gain tenurial rights over their own natural resource base and its management. Mangrove forests can be managed through CBFMAs and coral reefs can be managed through zoning laws that give rights to limited numbers and groups of stakeholders.
- Creation of special coastal law enforcement units trained and equipped well to enforce fisheries and other laws pertaining to coastal law enforcement.
- Multi-sectoral partnerships to facilitate compliance by creating peer pressure from various groups and levels of society. Bohol's CLEC is a good model for provincial-level initiatives, while CLEAR7 (Chapter 3) provides a useful example of a regional coalition supporting coastal law enforcement. Across the board coastal law enforcement before and after the establishment of the CLECs in the three districts of Bohol has still some way to go, but it may be the key to the long-term success of CRM in Bohol. Ninety percent of Bohol's fishers do not use illegal fishing methods, but prior to the CLECs, fishers always said their main problem was illegal fishing. With the province taking the lead in coastal law enforcement, fishers began to feel fairly rapid impact on their livelihood. Stopping illegal fishing eased a huge pressure off the resource, allowed fishery stocks and habitats to recover, and resulted in increased catches and incomes for small fishers. Fishers, feeling that they had at last the backing of the LGU and boosted by what they perceived in the CLEC as an apolitical enforcement unit, were encouraged to attend seminars and implement activities that support CRM (Green 2002).

There remains a critical need to bring local successes to scale, however. As international fishery experts have pointed out, the high mobility of fishing operations renders traditional fishery-by-fishery solutions to the problem ineffective, because the effort simply moves to another area, “exporting” the overfishing practices and habits, widening the sphere of unsustainable resource use, thereby creating more “problem areas” (SeaWeb 2002). While local action must be continued and intensified, capacity development for coastal law enforcement must also focus on finding solutions that address the more systemic causes of the illegal fishing problem. Fish do not know political boundaries. Fisheries management that builds upon the efforts of CRM is an effective steppingstone to initiate the piecing together of the jigsaw of municipal waters and national waters around the country for each ecosystem. It is only when each ecosystem is managed independently that the benefits of fisheries management and CRM can truly spell the difference between the continued decline and the recovery of Philippine fisheries.

Of particular concern are the government’s production-oriented operational policies that do not consider ecological limits and other basic resource management tenets. During the 1960s and 1970s, government policy was to encourage capital investment and full exploitation of fish stocks. People were lured into the business by the promise of high returns on relatively low investment. General policy directions have been slowly shifting towards resource management and sustainable use of fisheries, but at the operational level, weak coastal law enforcement and remnants of the past policy – low fees and taxes and other incentives that encourage maximum fisheries exploitation – combine to perpetuate “efficient”, industrial-scale but unsustainable methods of harvesting already fast-declining fishery resources. Cost-and-return studies indicate that more than 90% of production cost in the fishing business is actually operating cost, indicating that fixed costs (taxes and fees) are very minimal (DAP 1997).

In effect, government continues to subsidize illegal fishing practices that are devastating Philippine fishery stocks and habitats, and costing the country hundreds of millions of dollars annually. Fishery experts estimate that the Philippines is losing more than US\$400 million a year to overfishing of demersal and small pelagic species (Dalzell *et al* 1987)

Incentive-disincentive mechanisms must be devised to encourage enforcement of and compliance with coastal laws and regulations, promote sustainable coastal resource use, and direct fishing effort away from overexploited near-shore fisheries and degraded coastal habitats. The incentives/disincentives must target both implementers and resource users alike, so that they reinforce the establishment of new norms encouraging “best practices” in fisheries and CRM.

Another sustainability mechanism that has only recently been started is the delineation of municipal waters. Delineation, which is provided in the 1998 Fisheries Code, aims to officially establish the territorial extent and limits of the LGU’s municipal waters and fishery resources. It is an essential requisite in CRM, as it defines the geographic extent and limits of the city or municipality’s taxation or revenue-generating powers, its law enforcement jurisdiction, resource

allocation and general management powers. (NAMRIA 2001) Through delineation, the LGU can develop clear policies and ordinances on the use and management of fishery resources, including:

1. Protection/conservation (establishment of closed seasons, fishery reserves and sanctuaries);
2. Regulation (determination of fishing use rights for fish corrals, aquatic beds and milkfish fry areas; licensing of municipal fishing vessels for operation within municipal waters; licensing of commercial fishing vessels for operation within the 10.1-15 km area of municipal waters); and
3. Coordination and consultation with other LGUs to promote integrated, inter-LGU management of contiguous fishery areas.

At the minimum, delineation and the recognition of municipal waters as part of the municipal territory should instill among coastal LGUs a sense of ownership over these waters and encourage them to be more aggressive in enforcing resource management measures, including national laws and ordinances aimed at conserving coastal resources and protecting the preferential use rights of small-scale fishers, as provided for in the 1987 Philippine Constitution and the Fisheries Code (NAMRIA 2001).

CRMP assisted in the consultative formulation of DAO 2001-17, which provided the technical guidelines for the delineation of municipal waters. DAO 2001-17 was contested by a group of commercial fishers for various reasons, and was subsequently revoked (Chapter 3), but it served as basis for the formulation of a new set of guidelines to be issued by DA-BFAR. Moreover, the furor created by the controversy has a silver lining: it provided the impetus to turn municipal water enforcement into a public issue, and for an unprecedented number of groups and individuals from a broad range of sectors to close ranks behind the delineation and full enforcement of municipal waters. This is significant because, while defending the guidelines has been a struggle, the bigger challenges lie ahead: The sheer number of municipal water boundaries that must be delineated is alone a major hurdle for government to surmount, and even more crucial, proper enforcement of municipal water boundaries is necessary to ensure that management measures will achieve their intended results.

**Financing mechanisms for CRM.** All discussions about gaps in local capacities for CRM inevitably lead to one subject: Funding. It was noted earlier in this chapter that LGU budgets, while still inadequate, have been increasing in the last few years, indicating the growing acceptance of LGUs of their CRM mandate. The argument that funding is directly proportional to the LGU's acceptance of an issue as a priority means little to the deputy fish warden who cannot go after illegal fishers because the LGU has run out of gas money, or to the municipal fishery technician who cannot begin PCRA or participatory CRM planning because the budget allocated for the activity had to be realigned to disaster and relief operations. "Environmental protection also requires not only stronger enforcement of environmental regulations but also more market mechanisms and economic incentives to promote it" (UNDP 1997b).

Part of the capacity development effort must therefore focus on helping the LGU institute revenue generation and financing mechanisms to cover at least some of the funding needs of CRM. Several financing mechanisms are available to the LGU for CRM, but these mechanisms are largely underutilized. Credit financing schemes, domestic loans, grants and other external funding for CRM are available, but few LGUs avail of them.

LGUs can also generate their own revenues through development enterprises, inter-LGU cooperation and revenue generation from water use zones. But few LGUs currently apply taxes, fees or other charges to the use of municipal waters. This is partly due to the fact that no official delineation of municipal waters has taken place in most areas, and few municipalities have established CRM plans that zone municipal water use and, even fewer have tax or fee structures that can apply the relevant economic rent.

Safeguards – fishing quotas, closed seasons, size limits on harvestable fish, livelihoods such as ecotourism that depend directly on keeping the resource pristine and healthy – must be installed to ensure that revenue generation and financing mechanisms are always aligned with the LGU's overall CRM policy, and that resource management objectives are not sacrificed in the pursuit of higher revenues from resource use. Opportunities to maximize receipts by allowing high-paying “customers” to over-exploit the resource will be plentiful and can prove tempting to LGUs struggling to meet revenue targets, especially in a setting where the primary resource users – small-scale fishers – have little capacity to pay taxes, at least in the near term in severely depleted fishing grounds, before stocks have had the time to recover.

CRMP assisted in the adoption of CRM and zoning plans in most of its Learning Area municipalities that can serve as a basis for the establishment of revenue generation mechanisms. In particular, a number of MPAs in CRMP sites serve as pilot areas to evaluate the effectiveness of user fees as an incentive for LGUs and coastal resource users to sustain protection and management efforts. A user-fee system is now operational at the Gilutongan Island Marine Sanctuary, which is part of the CRMP Learning Area in Olango Island, Cebu. In 2001, the municipality of Cordova, which has jurisdiction over Gilutongan Island, collected Php900,000 in entrance fees and another Php30,000 from the accreditation of dive boats and dive shop operators. These revenues have increased each year and are allocated for the upkeep of the sanctuary (CRMP 1997-2004).

At the national level, CMMO must have adequate funding, as well as access to funding for capacity development efforts and coordination activities. It must not be distracted from these primary functions by opportunities to administer grants and other funding intended for field-level resource management activities. Instead, it must concentrate on its role as broker, channeling such funds to the LGUs.

## Major Lessons Learned from the CRMP Experience

Lessons from CRMP's experience and achievements in implementing CRM locally and bringing about its strategic spread through various collaborative mechanisms and the CRM Certification System include the following:

- **CRM is a governance function.** There is no question that active community participation remains an essential ingredient for sustaining local CRM initiatives and that the community – people – must be at the center of the CRM process, but the community cannot achieve sustainable CRM outside of current policy conditions and political, social and economic structures. The most effective CRM approaches incorporate good governance into their design and implementation. Although the involvement and participation of NGOs and academe remain essential in catalyzing, funding and to some degree sustaining coastal management at the local level, the deliberate inclusion of the LGU establishes a new governance norm that acknowledges the delivery of coastal (and environmental) management as a basic service.
- **CRM begins with LGU acceptance of their leadership role.** CRM is a new concept to Philippine LGUs, or a function that they still regard as a national government mandate. Effort must be taken to encourage LGUs to take on the leadership role in CRM, and to constantly affirm and underscore such role. To increase the LGUs' appreciation of their role in CRM, the governance aspect of CRM must be emphasized and reiterated, and if necessary, pertinent provisions of the LGC, Fisheries Code and AFMA must be cited. LGUs as a rule want to be perceived as responsive to their constituents' needs, and thus respond more positively when CRM is presented as a basic government service that they are mandated and expected to deliver to coastal communities.
- **Interventions must be responsive to the LGU's "priorities" and must be undertaken in a process that promotes capacity development for CRM.** LGUs often want to immediately implement specific CRM interventions, such as marine sanctuaries or closed seasons, to see results that will establish the connection between resource management and certain benefits, such as increased fisheries yield. Some LGUs regard CRM planning as a protracted process that offers few immediate benefits and, worse, can generate negative impacts on people's livelihoods in the short term – therefore, a politically risky proposition. While technical assistance must work towards the eventual LGU adoption of the CRM planning process, it must also be perceived as timely and relevant to LGU needs. The opportunity of using specific "best practices" and management interventions to demonstrate the benefits of CRM should not be ignored. Allies can be won with just a few small successes. Indeed, the LGUs who are most committed to CRM are those who have seen a marine sanctuary work. Education can provide the initial understanding about why a program is needed, but, with pressure from the public for the LGU to produce results, only observable results can sustain a program. But no matter what the entry point

may be, the process must promote capacity development for CRM and proceed progressively toward the integration of the CRM planning process into the local governance system. Every phase of the CRM planning process is an opportunity for building capacity.

- **CRM must directly address poverty issues.** The argument that CRM will in the long term provide greater economic benefits to resource users than current unsustainable practices is lame against the backdrop hand-to-mouth poverty. Marginal fishers who are asked to stop destructive fishing must be assured of livelihood assistance that will allow them to “survive” low yields and income for as long as it takes fishery stocks and habitats to recover their productivity. Thus, enterprise development is particularly appealing to LGUs as an entry point for CRM. Nevertheless, effective livelihood takes time to develop and the need to arrest declining resources must often get first priority before it is too late.
- **Integration is essential.** Many LGUs perceive CRM as a project focused on fisheries designed to meet certain specific, sectoral and primarily conservation objectives. The key to an LGU’s acceptance of CRM often lies in how CRM is packaged and “sold” to the decision-makers and implementers within the LGU. In general, the LGU officials become more accepting of CRM objectives when they are able to relate CRM to their development goals, or their “bread and butter”. In this sense, CRM becomes a much more attractive proposition as an integrating management “framework” for coastal development efforts than it would be as a fisheries-focused conservation “project”. CRM has far greater impact if it is part of the LGU’s overall development plan.
- **Sell the law.** IEC efforts must focus on ‘selling the law’ and must add the elements of environmental ethics in their message. There is a need to strongly advocate for a protective, holistic and precautionary mindset and perspective in addition to technical information and training in CRM.
- **People need to understand the ‘why’ of CRM.** Providing some factual information and explanation of natural and ecological laws contributes greatly to the understanding of why CRM is needed. When resource users understand the workings of natural laws, there is a better appreciation of the impacts of human activities on the environment and the importance of good resource management.
- **Information is better appreciated when it is “localized”.** The value of localizing information on the state of coastal habitats and corresponding issues and problems is best illustrated with the conduct of PCRA at the community level. PCRA serves not only as a research tool for informed decision-making, but also as a high-impact educational vehicle for resource users and decision-makers alike. Efforts to generate LGU and community support for CRM are generally more successful when backed up by information about local conditions. Through the presentation of locally derived research results and other

relevant information, LGUs and community resource users are able to better appreciate the issues and problems and accept the need for unified rather than fragmented solutions.

- **Ownership must be shared and spread as widely as possible.** Ownership of the program must be spread across the community and as many sectors as possible, because CRM involves complex issues affecting a wide range of sectors, some outside the LGU. To foster such ownership, the process must be transparent, giving all partners a say in what happens in the project. Counterpart funding of LGUs in the conduct of CRM activities must be negotiated to generate a level of LGU ownership. Formation of capable and respected community groups working together on projects with real outputs is essential. Having just one or two people own the whole project and do all the activities means that ownership accrues only to a couple of people, and may not be sustainable. Similarly, while strong political commitment is a must for success, de-linking CRM from political personalities makes management less vulnerable to changes in political leadership and thus enhances sustainability.
- **A low-profile approach favors collaboration.** In any endeavor, credit for the achievements that are realized must always go to one's partners – the LGU, fishers, village heads, NGOs and NGAs. By working behind the scenes, equipping partners with training and information while ensuring that they are the ones who are leading the way, and taking into account the traditional structures of authority in the community, donor projects are better able to coordinate the actions and outputs of all the players in CRM.
- **Planning is not implementation.** Priority must be given to implementation, not only planning. Planning is very important to give implementation a chance at success. But, it must consider pragmatic concerns – time, money, and the need to adjust strategies and targets required, depending on how implementation proceeds and how the institutional, political and human relationships that affect it develop.
- **Clear, measurable targets keep everyone on track.** Goals and priorities must be clearly identified and communicated, and consensus built around them. The use of measurable indicators improves program efficiency. To be useful, indicators must reflect changes in the outcomes as well as the process, and must be monitored and evaluated regularly against program baselines and targets. Moreover, M&E should be conducted in a manner that allows those responsible for program implementation to assess their own progress and adapt their actions accordingly, and contribute to capacity development.
- **Easy-to-use M&E tools combined with incentives encourage LGUs to comply with the M&E requirements of CRM.** Benchmarking keeps everyone on track, but it is not a practice that many LGUs are inclined to practice on a regular basis. Currently, the LGU is tasked to collect and collate data for various purposes, but these data are often not organized for easy retrieval, and data collection is not done in a systematized manner. Computer-based tools such as the MCD that partially automates M&E can make data



management less “tedious” and therefore improve compliance with M&E requirements. Utilization of such tools, however, remains low, even among LGUs with computer facilities. LGUs complain about having to maintain several databases, which require repeated encoding of data. It would be useful to incorporate all LGU performance monitoring tools, including the MCD, into a single integrated information management system. Compliance can also be improved with incentives. As a non-monetary incentive, certification provides the “prestige” factor, which can encourage LGUs to regularly benchmark, monitor and evaluate their progress in CRM. Combined with financial incentives, it can be a powerful mechanism for cultivating LGU commitment to CRM, and thus promoting the sustainability of CRM initiatives.

- **Affirmative feedback helps sustain program implementation.** Programs that focus on bringing out and enhancing the achievements of local initiatives can create an environment conducive to good performance, and often get longer-term and greater support from LGU officials than those that underscore the deficiencies. Vital to sustaining development programs is the participants’ belief that they are doing the right thing and are capable of improving. Strategies aimed at reinforcing such belief – awards, certification systems, cross-visits that earn for LGUs recognition from peers and the public – can be a strong driving force to ensure the sustainability of LGU and community efforts in resource management.

At the national level, some key factors learned by CRMP in building institutional sustainability and support, include:

- **Capacity development must be comprehensive.** It is important to address capacity gaps across the sectors and at all levels of government. One cannot effectively build capacity at the LGU level without addressing the lack of NGA support, sector interactions and relationships, and the policy environment. Nevertheless, capacity development can only progress incrementally. CRMP took a two-track approach that directly addressed capacity gaps at the local level, while considering national factors that hindered local capacity initiatives.
- **Good coordination is key to success in CRM.** Like all cross-sectoral programs, CRM cannot work effectively without proper coordination. While progress has been achieved in this regard at the local level, the mechanisms that have been installed still need to be strengthened. At the national level, the newly created CMMO will be the primary coordinating body for CRM, but this office needs to be fully staffed and organized. There must be a transition to prepare CMMO for its role as CRM “broker” and ensure that progress achieved in instituting CRM as a basic LGU service does not lose momentum.
- **Sustainability is a function of demand, which is built on success.** Servicing LGU needs for assistance is crucial to ensure that CRM initiatives are pursued long enough to generate economic, social and political benefits. Current demand for CRM best practices

will slow down if LGUs are unable to sustain their initiatives, and thus can demonstrate no positive results to justify their CRM effort. Results that are tangible and spell success will generate a self-sustaining demand for CRM that will ensure its continuity. One way that national government can help sustain local initiatives is by using the CRM Certification System as basis for prioritizing LGUs, especially for financial assistance. Such stepladder benchmarking encourages progressive implementation of prescribed CRM best practices.

- **National government reorientation is necessary.** The devolution of mandates to LGUs implies a change in the complexion of NGA-LGU relationships. NGAs are no longer expected to control, command and deliver many basic services directly to communities, as these have become the primary responsibility of LGUs. At the policy level, there is recognition that the LGU now plays the lead role, but operational directions and performance targets, as well as authority and accountability structures, have not been sufficiently adjusted to allow the machinery of government to respond adequately to the needs of LGUs as the new CRM service units of government. The National CRM Policy, once adopted, can serve as a guide to reorient government's central management targets and coordination functions to more closely fit NGAs' assigned role in a decentralized governance system.
- **Capacity development must aim for flexible, learning organizations.** Technical assistance must be aimed at restructuring key organizations of government to equip them with flexibility and quick response mechanisms required in addressing the cross-cutting issues related to CRM. Systems must support an enabling environment for CRM champions within each organization to be effective. The most important "technology" that a project like CRMP can give organizations, whether local, provincial, regional or national, is the ability to learn from successes and mistakes to remain viable in the future.
- **Capacity development never ends.** Capacity building is an ongoing process. It is important to be responsive to requests for information, guidance, assurance and support from LGUs and communities as they undertake CRM. The emphasis must not be on creating new institutions, but rather on building and strengthening capacities by linking the mechanisms already in place to support CRM. The CMMO must also be properly strengthened to give it the ability to perform its coordinating function and support capacity development for LGUs.

## Essential Actions Needed to Expand CRM in the Philippines

The Philippines is now at a stage where there is widespread acceptance among LGUs that CRM is an urgent need that requires priority action, and moreover, is a basic service they are mandated to deliver. Many of the interventions applied in CRMP's time are only just beginning to bear fruit, and there are many challenges ahead to test everyone's resolve to remain committed to their CRM goals.

Many policy directions for improved local governance and CRM in the Philippines still have to be implemented to support decentralization and accountability. LGUs must continue to improve their delivery of basic services and provide real measures of accountability to their constituents and the country at large. They need to integrate lessons learned in improved local governance and coastal management into a new framework of environmental governance that includes both coastal and watershed ecosystem planning and resource management. Co-management regimes between local government, NGAs, NGOs and coastal stakeholders must continue to be strengthened, guided by a common vision of sustainable coastal resource use.

Three policy agendas that form the core of the proposed national CRM policy sum up the urgent actions to foster and improve CRM in the Philippines (DENR 2001):

1. Encourage local leadership – Promote CRM as a basic service of LGUs by:
  - Adopting and implementing municipal and city CRM plans that include the essential elements of habitat and fisheries management;
  - Establishing effectively managed MPAs in all coastal LGUs;
  - Improving enforcement of national and local laws in municipal waters;
  - Adopting and implementing provincial CRM framework plans.
  
2. Realign national institutions and responsibilities – Support LGU initiatives in CRM by realigning national institutions and responsibilities through the adoption of the proposed NCRMP. Specific actions include:
  - Adopt department mission statements reflecting the goals and objectives of the National Coastal Resource Management Policy;
  - Complete institutional audits of department performance and results review in cooperation with other departments;
  - Establish a national certification and incentive system for local CRM plans and programs;
  - Publish an national report on the state of the Philippines' coastal environment; and
  - Serve and satisfy the information and technical assistance needs of LGUs.
  
3. Enhance the effectiveness of multi-sectoral support systems – Some key recommendations:

- Establish a regular multi-sectoral review system to identify and resolve overlapping, conflicting and inconsistent policies, laws and programs affecting CRM;
- Establish regular multi-sectoral review and assessment of the following: all national and marine protected areas; the Environmental Impact Assessment System; all shoreline and foreshore development policies, laws and implementation mechanisms; and the small and medium-scale commercial fishing industry;
- Provide relevant and reliable data on the status of municipal fish stocks, marine water quality and coastal habitats and ecosystems to local government and assisting organizations for use in CRM;
- Develop CRM training and technical assistance core groups at national, regional and provincial levels;
- Develop and implement a targeted, policy-relevant research agenda for enhanced management and stewardship of coastal resources; and
- Increase public awareness of environment-related responsibilities for coastal resources and their uses.

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## Appendices

### APPENDIX A. PERFORMANCE INDICATOR TABLES

#### Appendix A.1. Results for Strategic Objective Indicator 1

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED
<b>APPROVED:</b>	December 31, 2002 (Revised)
<b>SO INDICATOR:</b>	Kilometers of shoreline where improved management of coastal resources is being implemented
<b>UNIT OF MEASURE:</b>	Kilometers of shoreline in core areas and expansion areas
<b>SOURCE DOCUMENT:</b>	Local government unit records, contractor's activity report, independent surveys
<b>SOURCE ORGANIZATION:</b>	Local government units; TetraTech (contractor); USAID staff
<b>INDICATOR DESCRIPTION:</b>	Kilometers of shorelines from municipalities are counted when the following criteria in local implementation are reached: 1) Annual LGU budget allocated for CRM 2) Resources management organizations are formed and active 3) Best CRM practices are being implemented Data is collected annually.

YEAR	PLANNED	ACTUAL
1996	0	0
1997	0	0
1998	40	132
1999	670*	741
2000	1,200	1,410
2001	2,100	3,056
2002	3,000	3,187
2003	3,250	3,589
2004	3,500	

#### COMMENTS:

1996 – activity start-up year; however, the result framework for the CRM activity was revised in the 4<sup>th</sup> Quarter 1998, mid-term during the project. A total of 2,100 km of shoreline (670\* km from core areas plus 1,430 km from expansion areas) was targeted for completion by the end of the year 2001.

Kilometers of shoreline where improved management of coastal resources is being implemented is counted from core areas and expansion areas. Core areas (CRMP Learning Areas) are where CRM

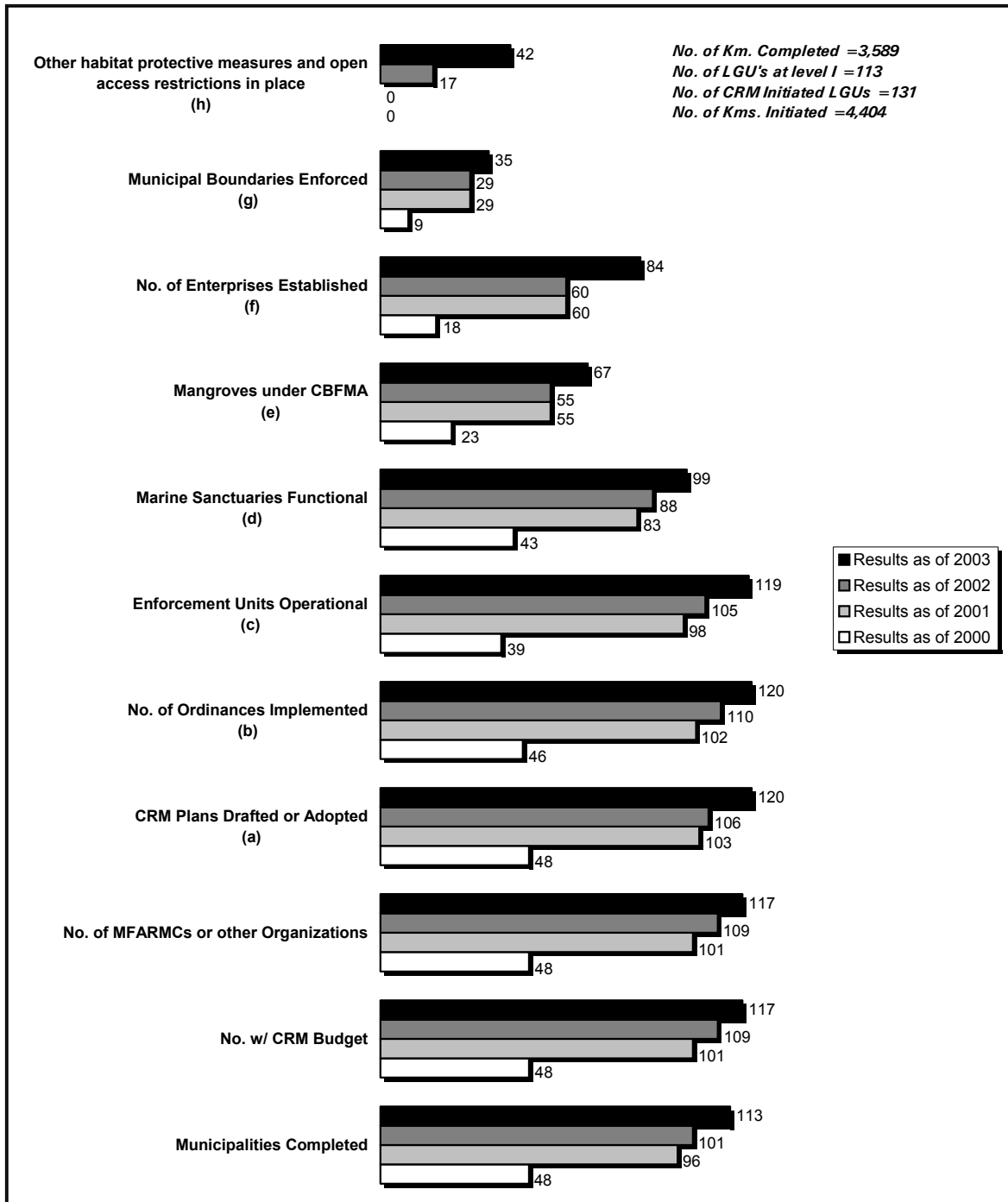
interventions are directly assisted by CRMP. Core areas contribute 670\* km of shoreline to the overall strategic objective of 3,000 km of shoreline where improved management of coastal resources is being implemented by the end of the year 2002. Actual km. completed at the end of 2002 was 3,187 km.

Local implementation in expansion areas is where CRM interventions are catalyzed through collaboration and use of CRMP products, services and limited technical assistance. Expansion areas contribute 2,330 km of shoreline to overall strategic objective of 3,000 km of shoreline where improved management of coastal resources is being implemented by the end of the year 2002 and 3,500 by year 2004.

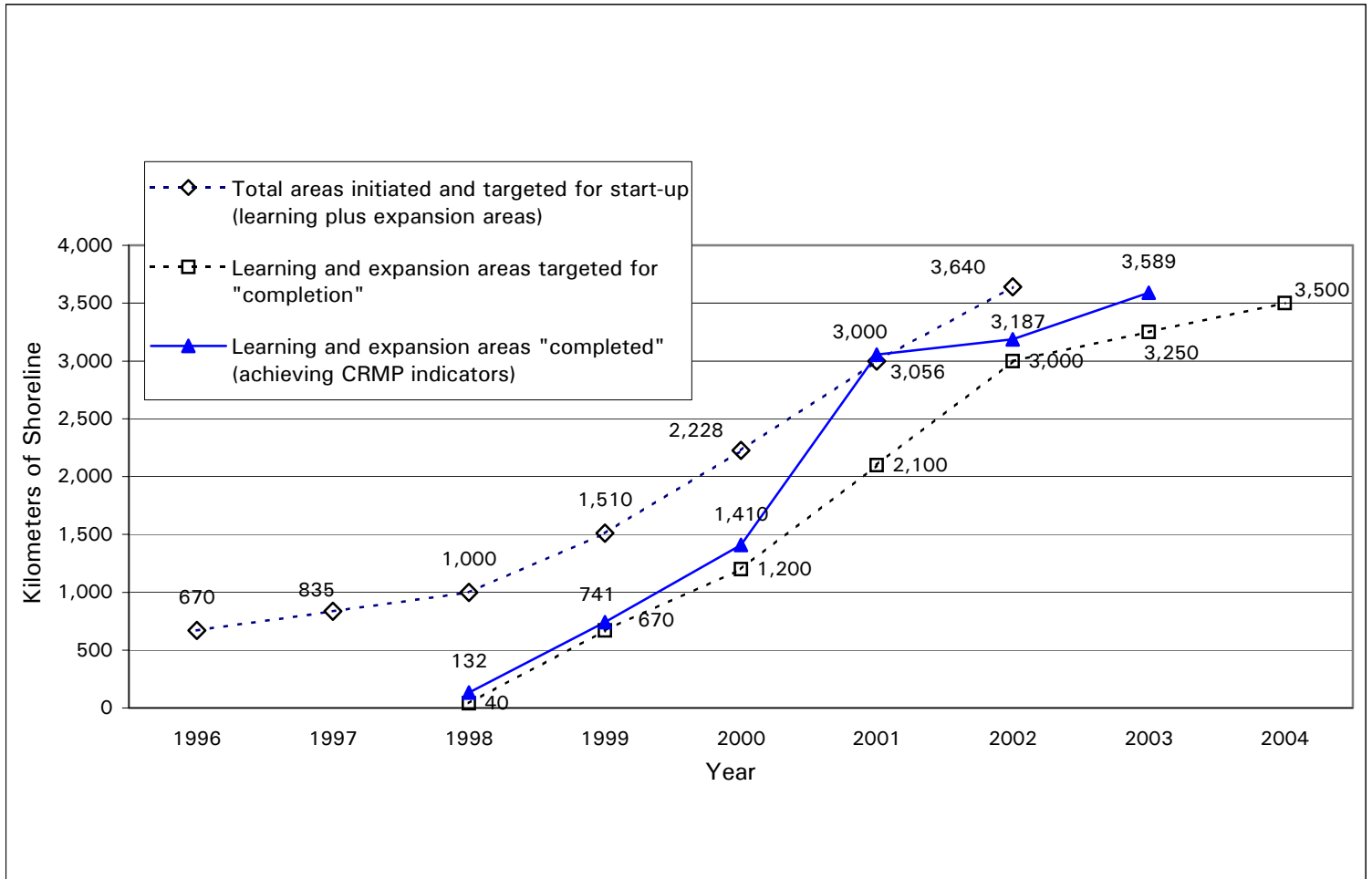
2003 – Kilometers of shoreline completed by end of 2003 exceeded the 3,250 km targeted by 339 km. The Municipal Coastal Database Summary Table 1 in Annual Report provides supporting data by municipality for Strategic Objective and Intermediate Result 1 indicators.

\* The actual number of km for core areas was revalidated in 2001 and was reduced to 655, however this re-adjustment does not affect the total number of km actually achieved.

**Appendix A.1.1. Status of CRM implementation in CRMP-assisted Learning and Expansion Area Municipalities (December 2003)**



**Appendix A.1.2. Kilometers of shoreline where improved management of coastal resources is being implemented**



**Appendix A.2. Results for Strategic Objective Indicator 2 (2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED
<b>APPROVED:</b>	December 31, 2002 (Revised)
<b>SO INDICATOR:</b>	Percentage change of fish abundance and coral cover inside and adjacent to marine sanctuaries
<b>UNIT OF MEASURE:</b>	Average percent change compared to baseline
<b>SOURCE DOCUMENT:</b>	Biophysical survey data, contractor's activity report
<b>SOURCE ORGANIZATION:</b>	University of the Philippines Marine Science Institute; TetraTech (contractor)
<b>INDICATOR DESCRIPTION:</b>	<i>Fish abundance inside and adjacent to marine sanctuaries:</i> Average percent change (in comparison to base years) in fish abundance inside and adjacent to six marine sanctuaries, using standard survey methods. Fish abundance will be estimated three times over the life of the project. <i>Coral cover inside and adjacent to marine sanctuaries:</i> Percent living coral cover inside and adjacent to six marine sanctuaries, using standard transect methods. Coral cover will be estimated three times over the life of the project.

YEAR	PLANNED (Fish abundance) (Inside/Adjacent)	ACTUAL (Inside/Adjacent)	PLANNED (Coral cover) (Inside/Adjacent)	ACTUAL (Inside/Adjacent)
1996				
1997				
1998	0/0	175/332	0/0	37/-28
1999	10/0	381/784	5/0	84/-19
2000	20/5	74/109	10/2	9/-3
2001	30/10	233/79	12/4	43/39
2002	40/15		15/6	
2003	40/15	905/314	15/6	46/-6
2004	40/15		15/6	

**COMMENTS:**

Changes in fish abundance and coral cover inside and adjacent to marine sanctuaries may be influenced by a wide range of biophysical factors independent of human activities, for example, large-scale climatic-induced changes in sea surface temperature that results in coral bleaching.

1998 – El Niño oceanographic conditions marked the year and resulted in fairly widespread occurrence of coral bleaching; Observations of localized infestations of the Crown-of-Thorns seastar (coral-eating seastars).

1999 – Baseline data collection complete for 2 additional learning areas, for a total of 6 marine sanctuaries (with 2 sanctuaries being monitored within Bohol LA and no sanctuaries identified as appropriate in Malalag LA). Annual monitoring complete for all 6 sanctuaries.

2000 – Updates on the six sanctuaries show significant increases in fish abundance and recovery of coral cover from the bleaching event of 1998. Fish abundance reflects the relatively good protection within the six sanctuaries.

2001 – Recovery of living coral cover continues as well as fish abundance reflecting adequate enforcement and stable environmental conditions

2002 – No data collection in 2002

2003 – Living coral cover continues to increase and fish abundance stable or improving inside all the sanctuaries. Conditions adjacent to the sanctuaries vary according to management and ecological conditions.

**Appendix A.3. Results for Intermediate Result 1.1, Indicator 1 (2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED
<b>APPROVED:</b>	December 31, 2002 (Revised)
<b>IR INDICATOR:</b>	Best CRM practices are being implemented or sustained
<b>UNIT OF MEASURE:</b>	No. of local government units where CRM benchmarks are being achieved and more than one CRM best practice is being implemented
<b>SOURCE DOCUMENT:</b>	Local government units records, contractor's activity report.
<b>SOURCE ORGANIZATION:</b>	Local government units; TetraTech (contractor); USAID staff
<b>INDICATOR DESCRIPTION:</b>	CRM best practices: CRM plans adopted, fisheries and coastal management ordinances implemented, environment-friendly enterprises established, enforcement units operational, marine sanctuaries functional, mangroves under CBFMAs, municipal water boundaries enforced. Other habitat protective measures and open access restrictions in place. Information will be collected on an annual basis.

YEAR	PLANNED	ACTUAL
1996	0	0
1997	0	0
1998	2	23
1999	10	32
2000	29	76
2001	40	96
2002	60	101
2003	110	113
2004	110	

**COMMENTS:**

2000 – Local government units implementing best practices are from all 6 learning areas as well as 3 expansion areas Masbate Province; (Mabini, Batangas; Palompon, Leyte; Cagayancillo, Palawan) as listed in Municipal Coastal Database Summary Table 1. Best practices being implemented include: CRM plans drafted/adopted fisheries and coastal management ordinances implemented, marine sanctuaries functional, enforcement units operational, mangroves under CBFMAs, environment-friendly enterprise established and municipal water boundaries enforced.

2001 and 2002 – The number of LGUs where two or more CRM best practices are being implemented has increased dramatically with CRMP expansion activities due to increasing demand for CRM within the Provincial Learning Areas and elsewhere.

2003 – The 11 LGUs targeted for completion by the end of 2003 have been added to the 101 LGUs completed in 2002. Another LGU (Davao City) that was not part of the 2003 target has been added to the number completed due to its active effort in implementing best CRM practice with assistance from the CRMP.

Appendix A.3.1. CRM benchmarks achieved in CRMP-assisted LGUs

Province/Municipality (No. of Coastal Barangays)	Shoreline Length (km)	Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total	
		1	2		3	Dec 2001	Dec 2002		Dec 2003
			Mun.	Brgy.					
<b>Bohol</b>									
<b>Learning Area</b>									
Buenavista	11	8	✓	✓	1	a, b, c, d, f, h	8		8
Calape	17	15	✓	✓	2	a, b, c, d, e, g, h	15		15
Clarín	7	7	✓	✓	1	a, b, c, d, f, h	7		7
* Inabanga	20	14	✓	✓	1	a, b, c, d, e, g, h	14		14
Tubigon	18	13	✓	✓	2	a, b, c, d, e, f, g, h	13		13
<b>Subtotal</b>	<b>73</b>	<b>57</b>	<b>5</b>	<b>5</b>	<b>7</b>		<b>57</b>		<b>57</b>
<b>Expansion Area</b>									
Albuquerque	6	5	✓	✓	1	a, b, c, d, f	5		5
Anda	8	19	✓	✓	2	a, b, c, d	19		19
Bien Unido	15	12	✓	✓	2	b, c, d, h			
Candijay	8	10	✓	✓	2	a, b, c, d, e, f, h	10		10
Dimiao	8	6	✓	✓	8	(a), b, c, d, f, g, h		6	6
García Hernández	11	16	✓	✓	11	a, c, f, g, h		16	16
* Getafe	19	17	✓	✓	2	a, b, c, d, e, f, h	17		17
Guindulman	7	16	✓	✓	2	a, b, c, d, f, h	16		16
Jagna	14	14	✓	✓	14	a, b, c, d, f, g, h		14	14
Loay	13	11	✓	✓	1	a, b, c, d	11		11
Loon	32	24	✓	✓	6	a, b, c, d, e, f, g, h	24		24
Mabini	11	29	✓	✓	3	a, b, c, d, e, f	29		29
Maribojoc	9	10	✓	✓	2	a, b, c, d, e, f, g, h	10		10
Panglao	10	25	✓	✓	1	c, d			
President García Is.	23	57	✓	✓	2	b, c, d			
Talibon	15	21	✓	✓	4	b, c, d			
Ubay	21	39	✓	✓	7	c, d			
<b>Subtotal</b>	<b>230</b>	<b>331</b>	<b>16</b>	<b>16</b>	<b>70</b>		<b>141</b>	<b>36</b>	<b>177</b>
<b>Total</b>	<b>303</b>	<b>388</b>	<b>21</b>	<b>21</b>	<b>77</b>		<b>198</b>	<b>36</b>	<b>234</b>

Province/Municipality (No. of Coastal Barangays)	Shoreline		Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total
	Length (km)	1	2		3	Dec 2001	Dec 2002	Dec 2003	
			Mun.	Brgy.					
<b>Cebu</b>									
<b>Learning Area</b>									
Cordova	1	13	✓	✓	4	(a), b, c, d, e, f, h	13		13
Lapu-Lapu City	10	48	✓	✓	16	(a), b, c, d, e, f	48		48
<b>Subtotal</b>	<b>11</b>	<b>61</b>	<b>2</b>	<b>2</b>	<b>20</b>		<b>61</b>		<b>61</b>
<b>Expansion Area</b>									
<b>Southwest Cluster</b>									
Alcantara	3	5	✓	✓	3	a, b, c, d, e, f	5		5
Alegria	4	13	✓	✓	3	a, b, c, d, e, f, g	13		13
Badian	12	23	✓	✓	10	a, b, c, d, e, f	23		23
Barili	8	17	✓	✓	5	a, b, c, d, e, f, g	17		17
* Dumanjug	8	16	✓	✓	7	a, b, c, d, e, g, h	16		16
Ginatilan	5	8	✓	✓	1	a, b, c, e	8		8
Malabuyoc	6	13	✓	✓	3	a, b, c, d, e, f	13		13
* Moalboal	8	27	✓	✓	7	a, b, c, d, e, f	27		27
Ronda	5	7	✓	✓	4	a, b, c, d, e, f	7		7
* Samboan	7	11	✓	✓	1 (P.O.)	a, b, c, d, g, h		11	11
<b>Southeast Cluster</b>									
* Alcoy	6	8	✓	✓	4	a, b, c, d, f, g, h	8		8
Argao	10	25	✓	✓	5	a, b, c, d, e, f, h		25	25
Boljoon	7	10	✓	✓	3	a, b, c, d, g, h	10		10
* Dalaguete	10	15	✓	✓	10	a, b, c, d, e, f, g, h	15		15
Oslob	16	23	✓	✓	3	a, b, c, d, e, f, g, h	23		23
Santander	6	12	✓	✓	1	a, b, c, d, e, f, g		12	12
* Sibonga	7	13	✓	✓	7	a, b, c, d, f, g	13		13
<b>Northern Cebu</b>									
Bogo	11	23	✓	✓	3	(a), b, c, d, e, f	23		23
<b>Subtotal</b>	<b>139</b>	<b>270</b>	<b>18</b>	<b>18</b>	<b>80</b>		<b>222</b>	<b>48</b>	<b>270</b>
<b>Total</b>	<b>150</b>	<b>331</b>	<b>20</b>	<b>20</b>	<b>100</b>		<b>283</b>	<b>48</b>	<b>331</b>

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Province/Municipality (No. of Coastal Barangays)	Shoreline		Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total
	Length (km)	1	2		3	Dec 2001	Dec 2002	Dec 2003	
			Mun.	Brgy.					

**Davao del Sur**
**Learning Area**

* Hagonoy	5	8	✓	✓	5	a, b, c, d, e, f, h	8			8
* Malalag	3	8	✓	✓	6	a, b, c, d, e, f, h	8			8
* Padada	4	6	✓	✓	12	a, b, c, d, e, h	6			6
Santa Maria	8	48	✓	✓	9	a, b, c, d, e, f	48			48
* Sulop	1	5	✓	✓	9	a, b, c, d, e, f	5			5
<b>Subtotal</b>	<b>21</b>	<b>75</b>	<b>5</b>	<b>5</b>	<b>41</b>		<b>75</b>			<b>75</b>

**Expansion Area**

Digos	4	11	✓	✓	4	a, b, c, e, f	11			11
Don Marcelino	10	35	✓	✓	10	(a), b, c, d	35			35
Jose Abad Santos	23	72	✓	✓	23	(a), b, c, f		72		72
Malita	10	32	✓	✓	10	a, b, c, d, e, f	32			32
Santa Cruz	11	34	✓	✓	11	a, b, c, d, e, f, h	34			34
Sarangani	11	60	✓	✓	11	a, b, c, e, f	60			60
<b>Subtotal</b>	<b>69</b>	<b>244</b>	<b>6</b>	<b>6</b>	<b>69</b>		<b>172</b>	<b>72</b>		<b>244</b>
<b>Total</b>	<b>90</b>	<b>319</b>	<b>11</b>	<b>11</b>	<b>110</b>		<b>247</b>	<b>72</b>		<b>319</b>

**Negros Oriental**
**Learning Area**

Amlan	5	7	✓	✓	5	a, b, c, d, e, f, h	7			7
Bacong	6	7	✓	✓	6	a, b, c, d, e, f, h	7			7
Bais City	13	30	✓	✓	13	a, b, c, d, e, f	30			30
* Dauin	9	10	✓	✓	9	a, b, c, d, e, f	10			10
* Dumaguete City	9	7	✓	✓	9	a, b, c, d, f	7			7
Manjuyod	10	16	✓	✓	10	a, b, c, d, e, f, h	16			16
San Jose	6	6	✓	✓	6	a, b, c, d, f, h	6			6
Sibulan	6	9	✓	✓	6	a, b, c, d	9			9
Tanjay	9	19	✓	✓	9	a, b, c, d, e, g	19			19
<b>Subtotal</b>	<b>73</b>	<b>111</b>	<b>9</b>	<b>9</b>	<b>73</b>		<b>111</b>			<b>111</b>



Province/Municipality (No. of Coastal Barangays)	Shoreline		Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total
	Length (km)		1	2		Dec 2001	Dec 2002	Dec 2003	
			Mun.	Brgy.	3				

Expansion Area									
Ayungon	8	18	✓	✓		a, b, c, d, e	18		18
Basay	5	12	✓	✓		a, c, d, e	12		12
Bayawan	7	14	✓	✓		a, b, c, d, e	14		14
Bindoy	6	13	✓	✓		a, b, c, d, e	13		13
Guihulngan	10	27	✓	✓	10	a, b, c, d, e	27		27
Jimalalud	6	9	·	✓		a, d			
La Libertad	6	26	✓	✓	1	a, b, c, d, e, h	26		26
Santa Catalina	8	35	✓	✓		a, c, d, e	35		35
Siaton	14	51	✓	✓	14	a, b, c, d, e, f	51		51
Tayasan	7	8		✓		a, b, d, e	8		8
Vallehermoso	7	13	✓	✓		a, b, c, d, e	13		13
Zamboanguita	4	11	✓	✓		a, b, c, d		11	11
<b>Subtotal</b>	<b>88</b>	<b>237</b>	<b>10</b>	<b>12</b>	<b>25</b>		<b>217</b>	<b>11</b>	<b>228</b>
<b>Total</b>	<b>161</b>	<b>348</b>	<b>19</b>	<b>21</b>	<b>98</b>		<b>328</b>	<b>11</b>	<b>339</b>

Palawan									
Learning Area									
San Vicente	10	120	✓	✓	6	a, b, c, d, e, f, g, h	120		120
<b>Subtotal</b>	<b>10</b>	<b>120</b>	<b>1</b>	<b>1</b>	<b>6</b>		<b>120</b>		<b>120</b>

Expansion Area									
Aborlan	9	70	✓	✓		(a), b, c, e, f, h	70		70
Agutaya	10	50	✓			b, c, d, f			
Bataraza	19	95	✓	✓		a, b, c, d, f	95		95
Brooke's Point	14	60	✓	✓		a, b, c, d, g, h	60		60
Cagayancillo	12	90	✓	✓		a, b, c, d, f, g, h	90		90
Coron	22					b, c, f			
Cuyo	12	45	✓			b, c, d, f			
El Nido		361				c, f			
Magsaysay	10	33	✓	✓		a, b, c	33		33
Narra	13	70	✓	✓		(a), b, d	70		70
Puerto Princesa	45	180	✓	✓		a, b, c, d, f	180		180
Quezon	11					(a), b, c, f, h	135		135

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Province/Municipality (No. of Coastal Barangays)	Shoreline		Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total	
	Length (km)		1	2		3	Dec 2001	Dec 2002		Dec 2003
				Mun.	Brgy.					
Rizal	11	110	✓	✓		a, b				
Roxas	17					b, c, d, f, g				
Taytay	28					b, c, f, g				
<b>Subtotal</b>	<b>233</b>	<b>1,164</b>	<b>10</b>	<b>8</b>			<b>733</b>		<b>733</b>	
<b>Total</b>	<b>243</b>	<b>1,284</b>	<b>11</b>	<b>9</b>	<b>6</b>		<b>853</b>		<b>853</b>	
<b>Sarangani</b>										
<b>Learning Area</b>										
* Alabel	3	11	✓	✓	3	a, b, c, d, e, f	11		11	
* General Santos City	9	30	✓	✓	9	a, b, c, e, f	30		30	
* Glan	16	66	✓	✓	16	a, b, c, d, e, f	66		66	
* Kiamba	13	37	✓	✓	13	a, b, c, d, e, f	37		37	
Maasim	12	45	✓	✓	12	a, b, c, e, f	45		45	
* Maitum	7	24	✓	✓	7	a, b, c, e, f	24		24	
* Malapatan	6	18	✓	✓	6	a, b, c, e, f	18		18	
<b>Subtotal</b>	<b>66</b>	<b>231</b>	<b>7</b>	<b>7</b>	<b>66</b>		<b>231</b>		<b>231</b>	
<b>Special Expansion Areas</b>										
<b>Batangas</b>										
Mabini	40	26	✓	✓	2	(a), b, c, d, f	26		26	
Tingloy	8	30	✓	✓	2	a, b, c, d, f	30		30	
<b>Subtotal</b>	<b>48</b>	<b>56</b>	<b>2</b>	<b>2</b>	<b>4</b>		<b>56</b>		<b>56</b>	
<b>Davao City</b>	<b>22</b>	<b>60</b>	<b>✓</b>	<b>✓</b>	<b>22</b>	<b>(a), b, c, f, h</b>			<b>60</b>	
<b>Subtotal</b>	<b>22</b>	<b>60</b>	<b>1</b>	<b>1</b>	<b>22</b>			<b>60</b>	<b>60</b>	
<b>Davao del Norte</b>										
Samal Island		116	✓	✓		a, b, c, d, e, f	116		116	
<b>Subtotal</b>		<b>116</b>	<b>1</b>	<b>1</b>			<b>116</b>		<b>116</b>	
<b>Davao Oriental</b>										
Mati	16	161	✓	✓	16	(a), b, c, e, f		161	161	
Baganga	11	44	✓	✓	11	(a), b, e, f		44	44	
<b>Subtotal</b>		<b>205</b>	<b>1</b>	<b>1</b>	<b>27</b>			<b>205</b>	<b>205</b>	
<b>Leyte</b>										
Palompon	10	29	✓	✓		a, b, c, d	29		29	
<b>Subtotal</b>	<b>10</b>	<b>29</b>	<b>1</b>	<b>1</b>			<b>29</b>		<b>29</b>	





Province/Municipality	Shoreline		Local CRM Implementation Indicators**			Km Shoreline Completed as of			Total
	Length		1	2	3	Dec 2001	Dec 2002	Dec 2003	
(No. of Coastal Barangays)	(km)		Mun.	Brgy.					
Cortes	12	35							
Lanuza	22	21							
Madrid	14	3							
<b>Subtotal</b>	<b>83</b>	<b>148</b>							
<b>Learning Area Total</b>	<b>254</b>	<b>655</b>	<b>29</b>	<b>29</b>	<b>213</b>	<b>655</b>	<b>0</b>	<b>0</b>	<b>655</b>
<b>Expansion Area Total</b>	<b>1,648</b>	<b>4,864</b>	<b>88</b>	<b>88</b>	<b>455</b>	<b>2,401</b>	<b>131</b>	<b>402</b>	<b>2,934</b>
<b>Project Total</b>	<b>1,902</b>	<b>5,133</b>	<b>117</b>	<b>117</b>	<b>587</b>	<b>3,056</b>	<b>131</b>	<b>402</b>	<b>3,589</b>
<b>Accumulated Total</b>									<b>3,589</b>
<b>Total Number of Municipalities</b>						<b>96</b>	<b>5</b>	<b>12</b>	<b>113</b>

**Notes :**

\* CRM certified municipalities (CRM Level 1):

\*\* Local CRM Implementation Indicators (CRM Level 1):

Indicator 1: Resources for CRM allocated by local government units

Indicator 2: Resource management organizations (municipal FARMCs) formed and active

Indicator 3: At least 2 CRM best practices (interventions) are being implemented by the LGU such as:

<b>Symbol</b>	<b>Description of CRM Best Practice</b>
a	CRM plans adopted
b	Fisheries and coastal management ordinances implemented
c	Coastal law enforcement units operational
d	Marine sanctuaries functional
e	Mangroves under Community-based Forest Management Agreements (CBFMAs)
f	Environmentally-friendly enterprises established
g	Municipal water boundaries enforced
h	Other habitat protective measures and open access restrictions in place
□	Yes
( )	Indicates that significant progress has been made in achieving CRM "best practices" (e.g. CRM plans drafted but not yet adopted or FARMC formed but not yet active)

**Appendix A.3.2. Marine protected areas (MPAs) established by CRMP-assisted LGUs**

Municipality/ City	MPA name	Year legally established as MPA	MPA size (ha)	Inside Area of NIPAS
<b>Bohol</b>				
Alburquerque	Alburquerque-Loay-Loboc Protected Landscape and Seascape	2000	1,164.16	Yes
Alburquerque	Sta. Felomina Marine Sanctuary	2000	12.20	Yes
Baclayon	Pamilacan Island Fish Sanctuary	1986	11.90	No
Buenavista	Asinan Fish Sanctuary	2000	50.00	No
Buenavista	Eastern Cabul-an Fish Sanctuary	1999	50.00	No
Calape	Lomboy-Cahayag Fish Sanctuary	1995	8.60	Yes
Clarin	Lajog Marine Sanctuary	1999	11.96	No
Dimiao	Pulangyuta Fish Refuge & Sanctuary	2001	18.56	No
Dimiao	Taong-Canandam Sanctuary	2001	26.70	No
Getafe	Jagoliao (A) Marine Sanctuary	2002	10.50	No
Getafe	Jagoliao (B) Marine Sanctuary	2002	20.00	No
Getafe	Nasingin Marine Sanctuary	2002	20.00	No
Guindulman	Basdio Marine Sanctuary	2001	18.40	No
Guindulman	Cabantian Marine Sanctuary	2002	22.22	No
Guindulman	Guinacot Marine Sanctuary	2002	13.70	No
Inabanga	Cagawasan Seagrass Sanctuary	2000	17.31	No
Inabanga	Lawis Seagrass Sanctuary	2000	9.90	No
Inabanga	Ondol Seagrass Sanctuary	2000	1.86	No
Inabanga	Sto. Niño Seagrass Sanctuary	2000	10.10	No
Loay	Tayong Occidental Marine Sanctuary	2001	24.00	No
Loay	Tayong Oriental Marine Sanctuary	2002	18.00	No
Loon	Cabacongan Fish Sanctuary	1997	11.80	Yes
Loon	Calayugan Norte Shell Garden and Fish "	2002	6.57	No
Loon	Calayugan Sur Fish Sanctuary	1997	14.50	Yes
Loon	Cogon Norte Shell Garden and Fish Refuge	2000	6.61	No
Loon	Cuasi Fish Refuge and Sanctuary	2001	10.00	No
Loon	Pantudlan Fish Sanctuary	1999	10.00	No
Loon	Sondol Fish Sanctuary	1999	10.00	No
Maribojoc	Maraag Marine Sanctuary	2001	12.26	No
Panglao	Balicasag Island Fish Sanctuary	1986	3.44	No
Tubigon	Batasan Island Marine Sanctuary	1999	21.00	Yes
<b>Subtotal</b>	<b>31</b>		<b>1,646.25</b>	
<b>Cebu</b>				
Santander	Pasil Marine Sanctuary	2002	10.45	No
Boljoon	Granada Marine Sanctuary	2001	9.35	No
Boljoon	Arbor Marine Sanctuary	2001	9.00	No
Alegria	Madrideojos Marine Sanctuary	1994	10.78	No
Alegria	Sta. Filomena Marine Sanctuary	1994	5.60	Yes
Alegria	San Jose Parish Marine Sanctuary	1994	2.10	Yes
Alcantara	Makalagom Restricted Area	2002	5.68	No
Alcantara	Binlanan Restricted Area	2002	1.40	No
Samboan	Colase Marine Sanctuary	1993	16.00	Yes
Alcoy	Mabad-on Marine Sanctuary	2002	22.71	No
Cordova	Gilutongan Island Marine Sanctuary	1999	14.89	No
Cordova	Nalusuan Marine Sanctuary	2002	83.20	No
Cordova	Day-as Marine Park	2003	16.20	No

Municipality/ City	MPA name	Year legally established as MPA	MPA size (ha)	Inside Area of NIPAS
Barili	Barili Marine Sanctuary	1990	15.90	Yes
Oslob	Sumilon Island Fish Sanctuary	1974	39.73	No
Oslob	Gawi Marine Sanctuary	2003	12.40	No
Malabuyoc	Sto. Niño Marine Sanctuary	1998	14.18	Yes
Malabuyoc	Poblacion Marine Sanctuary		7.00	Yes
Ronda	Sta. Cruz Marine Sanctuary	2002	12.01	Yes
Moalboal	Pescador Island Marine Sanctuary	1996	4.50	No
Moalboal	Tong Fish Sanctuary	1988	4.20	Yes
Moalboal	Saavedra Fish Sanctuary	1987	8.10	Yes
Dumanjug	Bitoon Marine Sanctuary	1997	27.85	Yes
Dumanjug	Camboang Marine Sanctuary	1997	4.80	Yes
Alcoy	Poblacion Marine Sanctuary	2002	6.38	No
Badian	Matutinao Marine Sanctuary	2003	15.00	Yes
Badian	Ginablan Marine Sanctuary	2003	10.00	Yes
Badian	Bato Marine Sanctuary	2003	25.00	Yes
Badian	Lambog Marine Sanctuary	2003	25.00	Yes
Badian	Sunken Island Marine Sanctuary	2003		Yes
Badian	Zaragosa Marine Sanctuary	1987	9.70	Yes
Dalaguete	Balud-Consolacion Marine Sanctuary	2003	12.70	No
Dalaguete	Casay Marine Park and Fish Sanctuary	2002	5.00	No
Sibonga	Bagacay Fish Refuge and Sanctuary	2000	23.61	No
Bogo	Capitancillo Marine Sanctuary	2003	22.00	No
Bogo	Siocon Marine Sanctuary	2003	12.00	No
<b>Subtotal</b>	<b>36</b>		<b>524.41</b>	
<b>Negros Oriental</b>				
Amlan	Bio-os Marine Reserve	1999	8.87	Yes
Amlan	Tandayag Marine Reserve	1996	6.00	Yes
Ayungon	Iniban Marine Reserve	1996	8.00	Yes
Bacong	Buntis Marine Sanctuary	2000	5.97	No
Basay	Bongalanan Marine Sanctuary	1993	20.00	No
Bindoy	Cabugan Fish Sanctuary	1993	6.90	Yes
Bindoy	Malaga Marine Reserve	1996	7.50	Yes
Bindoy	Tinaogan Marine Reserve	1996	25.30	Yes
Dauin	Poblacion District 1 Marine Reserve	2000	9.18	No
Dauin	Masaplod Norte Marine Reserve	1997	6.00	No
Dauin	Maayong Tubig Marine Reserve	2000	7.00	No
Dumaguete City	Banilad Marine Reserve	2001	12.25	Yes
Guihulngan	Malusay Marine Reserve	1996	6.00	Yes
Guihulngan	Hilaitan Marine Reserve	1996	6.00	No
La Libertad	San Jose Marine Reserve	1996	10.00	Yes
Manjuyod	Bolisong Marine Sanctuary	1995	10.00	Yes
Manjuyod	Campuyo Marine Sanctuary	1994	10.00	Yes
San Jose	Poblacion Marine Reserve	1994	4.00	Yes
Siaton	Andulay Marine Sanctuary	1993	6.40	No
Siaton	Salag Marine Reserve	2001	10.00	No
Sibulan	Cangmating Marine Reserve	1997	6.00	Yes
Sibulan	Agan-an Marine Reserve	1998	6.00	Yes
Tanjay	Tayabas Reef Marine Sanctuary	1998	2.00	Yes
Tayasan	Cabulotan Marine Reserve	1993	6.00	Yes



Municipality/ City	MPA name	Year legally established as MPA	MPA size (ha)	Inside Area of NIPAS
<b>Subtotal</b>	<b>24</b>		<b>205.37</b>	
<b>Province of Davao del Sur</b>				
Hagonoy	Hagonoy Fish Sanctuary	1998	50.00	No
Padada	Padada Fish Sanctuary	1993	50.00	No
Sulop	Balasinon Fish Sanctuary	1997	50.00	No
Malalag	Malalag Fish Sanctuary	1993	50.00	No
Sta. Maria	Sto. Niño-Basiawan Fish Sanctuary	1999	50.00	No
Malita	Tubalan Fish Sanctuary	on-going	60.00	No
Malita	New Argao & Culaman Marine Reserve	on-going	50.00	No
<b>Subtotal</b>	<b>7</b>		<b>360.00</b>	
<b>Province of Davao del Norte</b>				
Island Garden City of Samal	Aundanao Fish Sanctuary	1995	5.00	No
<b>Subtotal</b>	<b>1</b>		<b>5.00</b>	
<b>Palawan</b>				
San Vicente	Port Barton Marine Park	1998	6,500.00	No
San Vicente	Albague Island Fish Sanctuary			No
San Vicente	Nagolon Island Fish Sanctuary		5.00	No
<b>Subtotal</b>	<b>3</b>		<b>6,505.00</b>	
<b>Sarangani</b>				
Kiamba	Tuka Marine Sanctuary	1999	10.00	Yes
Alabel	Kawas Fish Sanctuary	1999	15.00	Yes
Glan	Glan Padidu	1998	12.00	Yes
Glan	Kabug Fish Sanctuary	1993	12.00	Yes
Glan	Pangyan	1995	70.00	Yes
Glan	Batulaki	1993	64.00	Yes
<b>Subtotal</b>	<b>6</b>		<b>183.00</b>	
<b>Masbate</b>				
Masbate City			51.65	No
<b>Subtotal</b>	<b>1</b>		<b>51.65</b>	
<b>Batangas</b>				
Mabini	Cathedral Rock Fish Sanctuary	1991	17.64	No
Mabini	Arthur's Rock Fish Sanctuary	1991	28.64	No
Mabini	Twin Rocks Fish Sanctuary	1991	20.00	No
Tingloy	Batalang-Bato Fish Sanctuary	2002	4.30	No
Bauan	Dive and Trek Fish Sanctuary		8.77	No
<b>Subtotal</b>	<b>5</b>		<b>79.35</b>	
<b>Siquijor</b>				
Siquijor	Caticugan Fish Sanctuary	1989	13.51	No
Enrique Villanueva	Tulapos Marine Sanctuary	1996	24.45	No
San Juan	Tubod Fish Sanctuary		7.50	No
Larena	Taculing Fish Sanctuary	1988	5.01	No
Maria	Olang Fish Sanctuary		20.09	No
<b>Subtotal</b>	<b>5</b>		<b>70.56</b>	
<b>Total</b>	<b>119</b>	<b>Area</b>	<b>9,630.59</b>	
<b>Declared by National Protected Areas System (NIPAS)</b>				
Talibon, Bohol	Talibon Group of Island Protected Landscape and Seascape	1998	6,455.87	N.A

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<b>Municipality/ City</b>	<b>MPA name</b>	<b>Year legally established as MPA</b>	<b>MPA size (ha)</b>	<b>Inside Area of NIPAS</b>
Negros Oriental, Bohol, Cebu, Negros Occidental	Tañon Strait Protected Landscape and Seascape	1998	no data	N.A
Dauin, Negros Oriental	Apo Island Protected Landscape and Seascape	1986 amended 1998	691.45	N.A
Cagayancillo, Palawan	Tubbataha Reef National Marine Park	1988	33,200.00	N.A
Mati, Davao Oriental	Pujada Bay Protected Landscape/Seascape	1994	21,200.00	N.A
Baganga, Davao Oriental	Baganga Protected Landscape and Seascape	no data	no data	N.A
Island Garden City of Samal	Samal Island Protected Seascape and Landscape	no data	no data	N.A
Sarangani Province	Sarangani Seascape	1996	34,500.00	N.A
<b>Total</b>	<b>8</b>		<b>96,047.32</b>	

**Appendix A.4. Results for Intermediate Result 1.1, Indicator 2 (2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES	
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED	
<b>APPROVED:</b>	December 31, 2002 (Revised)	
<b>IR INDICATOR:</b>	No. of provinces and/or multi-municipal/city clusters initiating and investing in institutional arrangements for coastal and fisheries resource management (CFRM)	
<b>UNIT OF MEASURE:</b>	No. of local government unit associations initiating CFRM activities	
<b>SOURCE DOCUMENT:</b>	Local government units records, contractor's activity report.	
<b>SOURCE ORGANIZATION:</b>	Local government units; TetraTech (contractor); USAID staff	
<b>INDICATOR DESCRIPTION:</b>	No. LGU associations initiating CFRM activities: An association of 3 or more LGUs (within or among provinces and including municipalities) that has endorsed and is actively implementing CFRM as a consortium (e.g. the Coastal Law Enforcement Alliance for Region 7 and the Davao Gulf Management Council). Information will be collected on an annual basis.	
<b>YEAR</b>	<b>PLANNED</b>	<b>ACTUAL</b>
2002	0	2
2003	4	8
2004	6	

**COMMENTS:**

2002 – This new indicator reflects the need to monitor the multiple LGU associations required to achieve improved CRM and fisheries management in bays, along common shorelines and in areas where the resource base determines the boundaries for management and not strictly the political boundaries. Initial functioning associations that have been assisted by CRMP include: CLEAR 7 and the Davao Gulf Management Council (DGMC).

2003 – Multi-LGU clusters established for this year focused more on inter-LGU collaboration on coastal law enforcement implementation. These include:

1. Coastal Law Enforcement Council District 1(CLEC 1), Bohol
2. Coastal Law Enforcement Council District 2(CLEC 2), Bohol
3. Coastal Law Enforcement Council District 3(CLEC 3), Bohol
4. Davao Gulf Environmental Protection Alliance (DGEPA)
5. Coastal Law Enforcement Southeast Cebu Cluster
6. Coastal Law Enforcement Southwest Cebu Cluster

**Appendix A.5. Results for Intermediate Result 1.2, Indicator 1 (2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES	
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED	
<b>APPROVED:</b>	December 31, 2002 (Revised)	
<b>IR INDICATOR:</b>	Increased awareness of overfishing problems and proposed solutions: No. of activities, events, public forums conducted, media coverage and publications developed and disseminated on overfishing	
<b>UNIT OF MEASURE:</b>	No. of activities, events and publications	
<b>SOURCE DOCUMENT:</b>	Contractor's activity report	
<b>SOURCE ORGANIZATION:</b>	TetraTech (contractor); USAID staff	
<b>INDICATOR DESCRIPTION:</b>	No. of activities, events and publications that increase awareness of overfishing problems and solutions will include: All major public forums and events on the topic assisted by CRMP; important media coverage through special programs and publications. Information will be collected annually.	
<b>YEAR</b>	<b>PLANNED</b>	<b>ACTUAL</b>
2002	5	8
2003	15	30
2004	20	36

**COMMENTS:**

2002 – The activities, events and publications completed include:

- |   |   |
|---|---|
| 1. Overfishing Forum in Manila                    | 6. Marine Protected Areas and Fisheries Reforms initiated |
| 2. Public CRM Forum by DENR                       | 7. Radio plugs on commercial fishing/overfishing          |
| 3. Press releases on various CRM-related subjects | 8. LMP Booth with theme of overfishing and improved CRM   |
| 4. 2003 Calendar produced and distributed         |   |
| 5. Fish ruler produced and distributed            |   |

2003 – Forums, publications, and media events conducted include:

- |  |  |
|--|--|
| A. Forums  |  |
| 1. Fisheries Forum for LGUs in the provinces of Bohol, Cebu, Negros Oriental and, Siquijor | 5. NALECC Forum                        |
| 2. Coastal Law Enforcement for PEDOs (Cebu, Bohol, Negros Oriental)                        | 6. Market Denial Operations            |
| 3. Commercial Fisheries Forum in Region 7  | 7. Regional Convention of Fish Wardens |
| 4. Fisheries Profiling Forum in Illana and Sarangani Bay                                   | 8. LMP Exhibit and presentation        |
|  | 9. NSAP TA for 8 regions               |
|  | 10. TA for BFAR 7 Fisheries Profile    |
| B. Publications and media  |  |
| 1. Fisheries in Crisis book  | 7. Art is Kool                         |
| 2. Sineskwela television show  | 8. Interpretive Center in Masbate      |
| 3. Press Releases  | 9. Exhibit in ITMEMS in Manila         |
| 4. Probe Team report on television   | 10. Radio Plugs                        |
| 5. Showcasing tours for media  | 11. Comic Books                        |
| 6. Side Trip on Saksi  | 12. Exhibit in SM, Cebu                |

2004—Forums, publications and media events conducted include:

- |  |  |
|--|--|
| A. Forums  |  |
| 1. National Coastal Zone Conference in Cebu  |  |
| 2. NALAECC meeting and book launching in Cebu  |  |
| B. Publications  |  |
| 1. In Turbulent Seas: The Status of Philippine Marine Fisheries                      |  |
| 2. Mending Nets: A Handbook on the Prosecution of Fishery and Coastal Law violations |  |
| 3. The Fisheries of Central Visayas, Philippines: Status and Trends                  |  |
| 4. Participatory Coastal Resource Assessment Handbook                                |  |

**Appendix A.6. Results for Intermediate Result 1.2, Indicator 2 (1998 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES
<b>STRATEGIC OBJECTIVE:</b>	ENHANCED MANAGEMENT OF RENEWABLE NATURAL RESOURCES
<b>APPROVED:</b>	December 31, 1998 (Revised)
<b>IR INDICATOR:</b>	Widespread utilization of legal, jurisdictional, operational guides, and training modules
<b>UNIT OF MEASURE:</b>	Number of government and assisting organizations utilizing legal, jurisdictional, operational guides and training modules for CRM developed by CRMP
<b>SOURCE DOCUMENT:</b>	Contractor's activity report.
<b>SOURCE ORGANIZATION:</b>	Tetra Tech (contractor); USAID staff
<b>INDICATOR DESCRIPTION:</b>	Assisting organizations include academic and NGOs. Information will be collected on an annual basis.

YEAR	PLANNED	ACTUAL
1996	0	0
1997	0	25
1998	5	58
1999	100	97
2000	125	143
2001	150	156
2002	200	219
2003	200	231

**COMMENTS:**

- 2001 – The universe of government and assisting organizations utilizing CRM guidance include: national, regional, and provincial offices of national government agencies; Supreme Court and regional and local courts; local government unit offices (provinces and municipalities); state colleges and universities; private colleges and universities; and non-government organizations. A summary listing of 156 agency organizations and projects are provided on the following page. Several of the listed donor-assisted projects are national in scope and inturn encompass numerous additional local government units, as well as involved agencies and organizations.
- 2002 – Added to the list of government, assisting organizations and other groups utilizing CRM guidance are peoples organizations (POs) and private sector. The Philippine Coastal Management Guidebook Series and Sustainable Coastal Tourism Handbook for the Philippines constituted the bulk of materials distributed for 2002.
- 2003 – Added 12 expansion area municipalities under local government unit category.

**Appendix A.6.1. Summary Documentation -- IR Indicator: Widespread utilization of legal, jurisdictional, operational guides, and training modules**

**National Government Agencies (17)**

BFAR-Regional Fishermen's Training Centers (RFTCs)  
Bureau of Fisheries and Aquatic Resources (BFAR)  
Department of Environment and Natural Resources (DENR)  
Department of Justice (DOJ)  
Department of Industry (DTI)  
Department of Interior and Local Government (DILG)  
Department of Tourism (DOT)  
Laguna Lake Development Authority  
Local Government Support Program (LGSP)  
Mindanao Economic Development Council (MEDCO)  
National Bureau of Investigation (NBI)  
National Economic Development Authority (NEDA)  
Palawan Council for Sustainable Development Staff (PCSDS)  
Philippine Coast Guard (PCG)  
Philippine Information Agency (PIA)  
Philippine Navy (PN)  
Philippine National Police (PNP)

**Local Government Units (131)**

29 Learning Area LGUs  
84 Expansion Area LGUs (See MCD Summary Table 1)  
15 Provinces (Aklan, Antique, Bohol, Cebu, Compostela Valley, Davao del Norte, Davao del Sur, Davao Oriental, Masbate, Negros Occidental, Negros Oriental, Palawan, Romblon, Sarangani, Sultan Kudarat)

League of Municipalities of the Philippines (LMP)  
League of Provinces of the Philippines (LPP)  
League of Provincial Legislators

**Donor Agencies and Donor-Assisted Projects (12)**

Bohol Marine Triangle  
Community-Based Resource Management Project (CBRMP) – World Bank  
Eco-Governance Project - USAID  
Fisheries Resource Management Project (FRMP) – ADB  
Foundation for Philippine Environment (FPE)  
German Development Service Office  
Governance and Local Democracy (GOLD) Project – USAID

Industrial Initiative for Sustainable Environment (IISE) Project – USAID  
Japan International Cooperation Agency (JICA)  
Southeast Asian Fisheries Development Center (SEAFDEC)  
US Peace Corps  
Volunteer Service Overseas (VSO) – United Kingdom

**Non-Government Organizations / Alliance (44)**

ABS-CBN Foundation  
Antique Federation of NGOs  
Antique Integrated Area Development Foundation  
Bandillo ng Palawan  
Bohol Alliance of NGOs (BANGON)  
Bohol Integrated Development Foundation  
Cebu Biodiversity Conservation  
Center for Environment and Rural Development (CERD)  
Coastal Conservation and Education Foundation, Inc. (CCEF)  
Coastal Dynamic Foundation  
Conservation International (CI)  
Davao Gulf Management Council  
Environmental Legal Assistance Council (ELAC)  
Evelio B. Javier Foundation  
Feed the Children  
Foundation for a Sustainable Society, Inc. (FSSI)  
Foundation of the Philippine Environment (FPE)  
GENESYS Foundation  
Gerry Roxas Foundation  
Girl Scouts of the Philippines  
Green Mindanao  
Guiuan Development Foundation  
Haribon Foundation  
Institute of Small Farms and Industries (ISFI)  
International Marinelife Alliance (IMA)  
Lanao Aquatic and Marine Fisheries Center for Community Development, Inc.  
Mactan Channel Management Council  
Palawan Conservation Corps  
Palawan NGO Network, Inc. (PNNI)  
Palompon Fishwardens Foundation Inc.  
Participatory Research, Organization of Communities and Education towards the Struggle for Self Reliance (PROCESS), Bohol  
Philidhrra  
Philippine Business for Social Progress (PBSP)  
PLAN International  
Ramon Aboitiz Foundation, Inc. (RAFI)

Samal Action Volunteers for Environment  
 Save the Children - US  
 Save Nature Society  
 SAGUDA  
 St. Catherine's NGO  
 Tambuyog Development Foundation  
 Tanggol Kalikasan  
 Ting Matiao Foundation, Inc. (TMF)  
 World Wildlife Fund-Philippines (WWF-Philippines;  
 Kabang Kalikasan ng Pilipinas, KKP)

**Academic Institutions (21)**

Camiguin Polytechnic State College  
 Cebu Normal University  
 Cebu State College of Science and Technology -  
 School of Fisheries  
 Central Visayas State College of Agricultural, Forestry  
 and Technology  
 Davao Oriental State College of Science and  
 Technology  
 Divine Word College, Tagbilaran, Bohol  
 Iloilo State College of Fisheries  
 Institute of Fisheries Policy and Development Studies  
 Leyte State University  
 Local Government Academy  
 Mindanao State University (MSU), General Santos  
 City  
 Palawan State University  
 Philippine Public Safety College  
 SEAFDEC – Aquaculture Department  
 Silliman University, Center of Excellence – Coastal  
 Resource Management (COE-CRM)  
 Siquijor State College  
 Southwestern University, Cebu  
 University of San Carlos – Marine Biology Section  
 (USC-CRM)  
 University of Southern Philippines  
 University of the Philippines - Marine Science Institute  
 (UP-MSI)  
 University of the Philippines in the Visayas (UPV)

**People's Organization (4)**

Suba Olango Eco-tour Cooperative (SOEC)  
 Cor Jesus College Junior Ecologist Movement  
 PAMANA Ka sa Pilipinas  
 Pambansang Kilusan ng mga Samahang Magsasaka

**Private Sector (2)**

Oposa and Associates  
 First Consolidated Bank

**Appendix A.7. Results for Intermediate Result 2, Indicator 2 (2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED
<b>APPROVED:</b>	December 31, 2002 (Revised)
<b>IR INDICATOR:</b>	Increased awareness of overfishing problems and proposed solutions: No. of coastal and fisheries resource management best practices documented/showcased
<b>UNIT OF MEASURE:</b>	No. of CFRM best practices showcased
<b>SOURCE DOCUMENT:</b>	Contractor's activity report
<b>SOURCE ORGANIZATION:</b>	TetraTech (contractor); USAID staff
<b>INDICATOR DESCRIPTION:</b>	No. of LGUs or cluster of LGU for successful CRM implementation through documentation mass media coverage and as learning destinations (e.g. Olango Island Bird and Seascape Tour, Gilutongan Marine Sanctuary generating revenues from user fees, selected functional and financially sustainable marine protected areas, coastal law enforcement operations that are effective, etc.) Information will be collected annually.

<b>YEAR</b>	<b>PLANNED</b>	<b>ACTUAL</b>
2002	0	0
2003	4	7
2004	6	7

**COMMENTS:**

2002 – Planning and documentation for this indicator started.

2003 – The following showcase tours and learning destinations were completed:

1. Olango Bird and Seascape Tour (OBST) / Gilutongan / Nalusuan Tour
2. Bohol Showcase Tour
3. Negros Oriental Showcase Tour
4. Davao Provinces Showcase Tour
5. Masbate Provincial CRM Showcase Tour
6. Masbate CRM Interpretive Center
7. Directory of Learning Destinations



**Appendix A.8. Results for Intermediate Result 3, Indicator 1 (2002 Results Framework)  
(2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES	
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED	
<b>APPROVED:</b>	December 31, 2002 (Revised)	
<b>IR INDICATOR:</b>	Harmonization of national policy for CRM	
<b>UNIT OF MEASURE:</b>	No. of adoptions of CRM guidances and training modules by key national government agencies	
<b>SOURCE DOCUMENT:</b>	Contractor's activity report	
<b>SOURCE ORGANIZATION:</b>	TetraTech (contractor); USAID staff	
<b>INDICATOR DESCRIPTION:</b>	CRM guidance and training: (a) legal and jurisdictional guidance; (b) integrated coastal management policies and procedures; (c) ICM, PCRA, mangrove management; (d) fisheries profiles and plans endorsed Information will be collected annually.	

YEAR	PLANNED	ACTUAL
1996	0	0
1997	0	0
1998	3	3
1999	20	8
2000	30	35
2001	33	37
2002	36	41
2003	40	44
2004	40	47

**COMMENTS:**

- 1998 – Legal and jurisdictional guidebook was completed and adopted in 1997 by 3 national government agencies (Department of Environment and Natural Resources, DENR; Bureau of Fisheries and Aquatic Resources, BFAR; and Department of Interior and Local Government, DILG).
- 1999 – PCRA guidebooks and methodology were adopted by DENR and BFAR. In addition, a mangrove management toolkit guidebook was completed and adopted by DENR for 1999. CRM for Food Security document adopted by BFAR and DA as policy guidance on fishery issues.
- 2000 – Joint Memorandum Order RP 8550 adopted by BFAR and DENR. 8 Coastal Management Guidebooks adopted by DENR, BFAR, and DILG and Mangrove Management Handbook adopted by BFAR through FRMP in addition to DENR's adoption in 1999.
- 2001 – National CRM policy adopted by DENR. DAO 17 approved by DENR. Draft DAO for Coastal and Marine Management Office in DENR.
- 2002 – DAO for CMMO approved, Letter of Instruction 10/01 (Perfect Environment) Signed by PNP, Sustainable Coastal Tourism Guidebook endorsed by DENR and DOT.
- 2003 – MOA Launching of the Gawad Police ng Kalikasan, M & E Guidebook, Memorandum Banning the Importation of Ammonium Nitrate Industrial Grade, (Phil. Fisheries Profiles Endorsed by 29 Agencies for inclusion in 2004 and Draft ICM Executive Order for signing in 2004—not counted in 2003)
- 2004 – In Turbulent Seas Published with multiple partners, Mending Nets Published with multiple partners, The Fisheries of Central Visayas published with multiple partners

**Appendix A.9. Results for Intermediate Result 3, Indicator 2 (2002 Results Framework)  
(2002 Results Framework)**

<b>ORGANIZATION/PROGRAM:</b>	USAID PHILIPPINES	
<b>STRATEGIC OBJECTIVE:</b>	PRODUCTIVE, LIFE-SUSTAINING NATURAL RESOURCES PROTECTED, ILLEGAL FISHING REDUCED	
<b>APPROVED:</b>	December 31, 2002 (Revised)	
<b>IR INDICATOR:</b>	DENR Coastal and Marine Management Office (CMMO) functional	
<b>UNIT OF MEASURE:</b>	No. of staff in CMMO compared to baseline	
<b>SOURCE DOCUMENT:</b>	Contractor's activity report	
<b>SOURCE ORGANIZATION:</b>	Tetra Tech (contractor); USAID staff; CMMO staff	
<b>INDICATOR DESCRIPTION:</b>	No. of staff in CMMO compared to baseline: No. of staff fully dedicated to CMMO tracked since the beginning of CMMO in 2002. Information will be collected annually.	
<b>YEAR</b>	<b>PLANNED</b>	<b>ACTUAL</b>
2000	0	0
2001	0	0
2002	3	6
2003	6	10
2004	9	12

**COMMENTS:**

2001 – Draft DAO for Coastal and Marine Management Office in DENR

2002 – DAO establishing CMMO signed and office established with 6 dedicated staff

2003 – 10 personnel in CMMO conducted training to 261 CMMS and CMMD staff on ICM; Provided TAs to CENROs (Cebu – 4, Bohol – 2, Negros Oriental – 2, Siquijor – 1, GenSan – 1, Sarangani – 3, Davao del Sur – 3, Davao Oriental – 4, Davao City – 2, Davao Norte – 2); Provided TAs to CMMDS (Region 7, 11, 12)

2004 – 2 new personnel added to CMMO in central office

## APPENDIX B. COLLABORATING INSTITUTIONS AND ORGANIZATIONS

### NATIONAL GOVERNMENT AGENCIES

Bureau of Customs  
 Cebu Ports Authority (CPA)  
 Commission on Higher Education (CHED)  
 Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR) – Provincial, Regional and National Offices  
 Department of Agriculture-Agricultural Training Institute (DA-ATI)  
 Department of Agriculture-National Agricultural and Fisheries Council  
 Department of Education, Culture & Sports (DECS)

### Department of Environment and Natural

#### Resources (DENR) - Provincial,

#### Regional and National Offices

Department of Interior and Local Government (DILG) – National, Regional and Provincial  
 Department of Justice (DOJ)  
 Department of Labor and Employment (DOLE)  
 Department of National Defense (DND)  
 Department of Public Works and Highways (DPWH)  
 Department of Science and Technology (DOST)  
 Department of Tourism (DOT)  
 Department of Trade and Industry (DTI)  
 Embassy of Japan-Official Development Assistance (ODA)  
 Fertilizer and Pesticide Authority  
 Foreign Affairs (DFA) Maritime and Ocean Affairs Committee  
 House of Representatives  
 Lingayen Gulf Coastal Area Management Commission (LGCAMC)  
 Ministry of Foreign Affairs, Singapore  
 National Agriculture and Fisheries Council (NAFC)  
 National Anti-Poverty Commission (NAPC)  
 National Broadcasting Network (NBN)  
 National Bureau of Investigation (NBI)  
 National Commission on Marine Sciences (UNESCO)

National Economic and Development Authority (NEDA)  
 National Mapping and Resources Information Agency (NAMRIA)  
 National Museum  
 National Youth Commission  
 Naval Forces Center (NAVFORCEN)  
 Office of Solicitor General (OSG)  
 Office of the President in Central Visayas  
 Office of the President, Presidential Assistant for the Visayas  
 Office of the Presidential Assistant on Poverty Alleviation  
 Office of the President-Mindanao Economic Development Council  
 Office of the Press Secretary  
 Office of the Regional State Prosecutor (RSP)  
 Office of the Solicitor General (OSG)  
 Palawan Council for Sustainable Development (PCSD)  
 Philippine Army, 701 Defense Center  
 Philippine Centennial Commission  
 Philippine Coast Guard (PCG) – National, Regional and Provincial  
 Philippine Council for Marine and Aquatic Resource Development (PCAMRD)  
 Philippine Council for Sustainable Development  
 Philippine Information Agency (PIA)  
 Philippine Institute of Development Studies (PIDS)  
 Philippine National Police (PNP) – Provincial, Regional and National Offices  
 Philippine National Police Maritime Command (PNP-MariCom)  
 Philippine National Police Traffic Group  
 Philippine Navy  
 Philippine Navy/Naval Forces-Central Philippines (NAVFORCEN)  
 Philippine Senate  
 Philippine Tourism Authority (PTA)  
 Philippine's Television Network  
 PNP-Maritime Group  
 Protected Area and Wildlife Bureau of the DENR  
 Protected Area Management Boards (PAMB)  
 Provincial Tourism Office, Negros Oriental

Regional Development Council  
Regional Fisherman's Training Center  
Senate of the Philippines  
SOCSKARGEN Area Development Project  
Supreme Court of the Philippines  
Tañon Strait Commission  
Technical Educational Skills Development  
Authority (TESDA)  
Technology Livelihood Resource Center

**Donor Agencies and Donor-Assisted  
Projects**

ACES  
AGILE  
Asian Development Bank (ADB)  
Associates in Rural Development (ARD-  
GOLD)  
Australian Agency for International  
Development  
British Embassy  
Canadian International Development  
Agency (CIDA)  
Community Based Resource Management  
Project (CBRMP)-World Bank  
Counterpart International and  
Enviroventures, Inc.  
EcoGovernance –USAID  
Enterprise Works Worldwide  
Environment and Natural Resources  
Accounting Project (ENRAP-USAID)  
European Union  
Fisheries Resource Management Project  
(FRMP-ADB)  
Forestry Resource Management Project  
(FRM-USAID)  
Foundation for Philippine Environment ( FPE  
) Bohol Marine Triangle  
German Development Service (GDS)  
Governance and Local Democracy Project  
(GOLD-USAID)  
Growth and Equity in Mindanao (GEM-  
USAID)  
Industrial Environmental Management  
Project  
Industrial Initiative for Sustainable  
Environment Project (IISE-USAID)  
International Development and Geography  
(Denmark)  
International Labor Organization (ILO)  
Japan International Cooperation Agency  
(JICA) (SEED) Project  
Mactan Channel Multi-Sectoral Council  
Netherlands Embassy  
NOVEB-Holland Funding Agency

Overseas Economic Cooperation Fund  
(OECF-Japan)  
PATH Foundation, Inc.  
Peace Corps U.S.  
Philippine Canada Environmental and  
Economic Management (PCEEM)  
Program  
Philippine Coral Reef and Rainforest  
Foundation, Inc.  
Philippine Self Help Foundation  
Proyek Pesisir (CRMP Indonesia)  
Reef Check Global Survey Program  
Southern Mindanao Integrated Coastal Zone  
Management Project (SMICZMP)-JBIC  
Synergetic Management of Coastal  
Resources (SYMCOR)  
U.S. Peace Corps  
United Nations Development Program  
(UNDP)  
United Nations Education, Scientific and  
Cultural Organization (UNESCO)/  
UNESCO-DANIDA  
United States Agency for International  
Development (USAID)  
United States Agency for International  
Development-Washington DC (USAID)  
United States Coast Guard  
United States Department of Treasury  
United States Federal Law Enforcement  
Training Center  
University of the Philippines Coastal  
Information Systems Project (UP-CEIS)  
with the German Development Service  
Western Samar Agricultural Resources  
Development Program (WESAMAR-  
European Union)  
World Bank

**Non-Government Organizations**

Aboitiz Group of Companies Foundation,  
Inc.  
ABS-CBN Foundation  
Asian Institute for Journalism and  
Communication  
Asian Social Institute  
Association of Government Information  
Officers (AGIO)  
Bais City Development Foundation  
Bais City Multipurpose Cooperative  
BANGON  
Bantay Dagat, Inc.  
Bohol Foreign Friendship Foundation Inc.  
(BFFFFI)  
Bohol Integrated Development Foundation  
(BIDEF)

- Bohol Investment Promotion Center (BIPC)  
 Bondoc Development Program  
 Boy Scouts of the Philippines  
 Buglas Bamboo Institute  
 By Design International, Inc.  
 Catholic Relief Services  
 Cebu City Bantay Dagat Commission  
 Center for Alternative Development  
 Centrop  
 Coastal Conservation and Education  
 Foundation (CCEF) (formerly Sulu Fund  
 Inc.)  
 Coastal Dynamics Foundation  
 Commission on Youth-Diocese of  
 Dumaguete  
 Conservation International (CI)  
 Conservation of Priority Protected Areas  
 Project  
 Council of Economics Educators  
 Davao Gulf Management Council  
 Earthsavers Movement  
 Ecotourism Society of the Philippines  
 Eduardo Aboitiz Development Studies  
 Center  
 Environmental Legal Assistance Center  
 (ELAC)  
 Environmental Science for Social Change,  
 Inc. (ESSC)  
 Evelio B. Javier Foundation  
 Feed the Children Foundation  
 Fil Products Cable TV  
 First Consolidated Bank Foundation, Inc.  
 (FCBFI)  
 Fisheries Resource Management Project  
 Ford Foundation  
 Foundation for a Sustainable Society, Inc.  
 (FSSI)  
 Foundation for Philippine Environment  
 (FPE)  
 Friends of the Banica River and the  
 Environment (FBRE)  
 Fundacion Santiago  
 GENESYS Foundation  
 German Development Service (DED)  
 Girl Scouts of the Philippines  
 Global Exchange  
 GOPA 21 (Governance for Philippine  
 Agenda 21)  
 GTZ – Visayan Sea  
 Guiuan Development Foundation, Samar  
 Haribon Foundation  
 Haribon Foundation ICM Research  
 Sustainability Project  
 Herma Shipping  
 Hon Mun MPA Pilot Project  
 Institute for Small Farms and Industries  
 (ISFI) Ateneo de Davao University  
 Institute for Social Order - Ateneo de Manila  
 International Center for Living Aquatic  
 Resources Management (ICLARM)  
 International Institute for Rural  
 Reconstruction (IIRR)  
 International Marinelife Alliance (IMA)  
 JF Ledesma Foundation, Inc.  
 Kalikasan Vigilante (Radio Veritas)  
 Environment Caravan  
 Kilusang Sagip Kalikasan (KSK)  
 League of Cities of the Philippines (LCP)  
 League of Municipalities of the Philippines  
 (LMP)  
 League of Provinces of the Philippines  
 (LPP)  
 League of Vice Governors of the Philippines  
 Local Government Development Foundation  
 (LOGODEF)  
 Mactan Channel Multi-Sectoral Council  
 Mamamayan-Pakisama-Samahang  
 Mangingisda  
 Marine Stewardship Council (London, UK)  
 Menca Development Corporation  
 Mirant Corporation  
 Museum Volunteers of the Philippines  
 NACFAR  
 National Federation of Aquatic Resource  
 Management Council (NFARMC)  
 National Fisheries Reform Network  
 Negros Occidental Provincial Bantay Dagat  
 Commission  
 Negros Oriental Association of Travel  
 Agencies (NOATA)  
 Negros Oriental Union of Cooperative  
 NGOs for Fisheries Reform  
 North Negros Community Development  
 Foundation Inc. (NNCDFI)  
 Packard Foundation  
 Palawan Chamber of Commerce and  
 Industry  
 Palawan Council for Sustainable  
 Development (PCSDS)  
 Palawan Network for NGO's Inc. (PNNI)  
 Palawan Tropical Forestry Protection  
 Program (PTFPP)  
 Palawan-American Studies Association  
 Pamilacan Island Dolphin and Whale  
 Watchers Organization  
 Participatory Research, Organization of  
 Communities and Education towards the  
 Struggle for Self Reliance (PROCESS)  
 Foundation

Partnership for Environmental Management  
in Seas of East Asia (PEMSEA)  
Pew Charitable Trusts  
Philippine Business for Social Progress  
(PBSP)  
Philippine Business for the Environment  
(PBE)  
Philippine Center for Marine Affairs  
(PHILMAR)  
Philippine Coast Guard Auxiliary  
Philippine Council for Aquatic and Marine  
Development (PCAMRD)  
Philippine Foreigner Friendship Association  
Philippine Mining Corporation  
Philippine National Association of Fish-  
Wardens (Phil-NAF)  
Philippine Partnership for the Development  
of Human Resources in the Rural Area  
(PhilDHRRA)  
Philippine Self-help Foundation  
Philippine-Canada Economic and  
Environmental Management (PCEEM)  
Plan International  
Pollution Control Association of the  
Philippines, Inc. (PCAPI)  
Population Center Foundation/Population  
Commission  
Program for Appropriate Technology in  
Wealth (PATW)  
Project Seahorse  
Ramon Aboitiz Foundation, Inc.  
Regional fisherman's Training Center  
(RFTC)  
SAGUDA  
Sangguniang Kabataan (SK), Cebu  
Provincial Chapter  
Save the Children USA  
SCORE  
Shedd Aquarium Chicago  
St. Catherine Family Helper Project, Inc.  
SU Marine Laboratory  
Sugbuanon Study Center  
Surfing Association of the Philippines  
Tambuyog Development Center  
The Nature Conservancy-Indonesia  
Ting Matiao Foundation, Inc. (TMF)  
Tourism Concern Council-Fair Trade in  
Tourism Network  
UNEP Asia Pacific Region  
Union of Local Authorities of the Philippines  
(ULAP)  
United Evangelical Mission  
United States Embassy-International Bazaar  
Foundation  
Vice Mayors League of the Philippines

Visayas Cooperative Central Fund  
Federation (VICTO)-  
Volunteer Service Organization (VSO)  
Wildlife Conservation Society of the Phil.  
World Resource Institute (WRI)  
World Wildlife Fund (WWF)  
World Wildlife Fund Philippines (WWF-KKP)

**Academe and Research**

Asian Environmental Research Center,  
University of Southern Philippines  
Asian Institute of Tourism (AIT)  
Buglas Bamboo Institute  
Business Resource Center, Notre Dame  
University  
Cebu State College (CSC)  
CVPC Extension Unit  
Davao Oriental State College of Science  
and Technology  
Divine Word College  
East-West Center  
Field Museum of Natural History (Chicago,  
USA)  
Foundation University  
Holy Trinity College  
Immaculate Heart Academy  
James Eder, Arizona State University  
Kobe Gakuin University  
Mindanao State University  
Mindanao State University – General Santos  
City  
Mindanao State University – Naawan  
Ministry of Foreign Affairs, Singapore &  
National University of Singapore  
National University of Singapore  
Old Dominion University  
Philippine Institute of Development Studies  
(PIDS-BAR)  
Sacred Heart School  
Silliman Center of Excellence in Coastal  
Resource Management  
Silliman University  
Siquijor State College (SSC)  
Smithsonian Institution  
Social Action Island-wide network  
Southeast Asia Development Center  
(SEAFDEC)  
Southern Philippines. Agribusiness and  
Marine and Aquatic School of  
Technology  
St. Theresa's College (STC)  
State Polytechnic College of Palawan  
(SPCP)  
Tagbilaran Science High School  
University of Cebu (UC)

University of Rhode Island (URI)  
 University of San Carlos (USC)  
 University of San Carlos Marine Biology  
 Section  
 University of the Philippines – Marine  
 Science Institute  
 University of the Philippines (UP)  
 University of the Philippines Coastal  
 Environmental Information  
 University of the Philippines in the Visayas –  
 Cebu Campus  
 University of the Philippines in the Visayas-  
 Miagao Campus  
 University of the Philippines Visayas (UP)  
 Xavier University

**LGU Offices**

Bohol Environment and Management Office  
 (BEMO)  
 Bohol Tourism Office  
 Davao City Tourism Office  
 Dumaguete City Tourism Office

**Private Sector**

92.3 Killer Bee FM  
 ABS-CBN Foundation’s Bantay Kalikasan  
 and Sine’skwela  
 ABS-CBN-GMA Channel 7, DXCB; DXBB in  
 Sarangani Province  
 Action Asia Magazine  
 Adventure Tours of Dumaguete City  
 Aklat Ardana  
 Alegre Beach Resort  
 American Chamber of Commerce  
 Anlene Milk  
 Banco Filipino  
 Baroto Paddlers  
 Bohol Diver’s Lodge  
 Bookmark  
 Boyla Dive Shop (Cebu)  
 Catholic Media Network  
 Cebu Chamber of Mangrove Industries  
 Cebu Daily News  
 Cebu International School  
 Chamber of Fisheries and Aquatic  
 Resources  
 Councilors League of the Philippines ( CLP)  
 CP Kelco, Inc.  
 Cuernos Adventure Plus  
 DAI-IRM  
 Davao City Chamber of Commerce and  
 Industry Inc.  
 Dolomite Philippine Mining Services  
 Corporation

DyAB – AM (ABS-CBN)  
 DyDD – AM and DYAR – FM  
 DYDD, DYHP, DYSS  
 DYLA  
 DyMF – AM  
 El Dorado Beach  
 Environmental Broadcasters Circle  
 FF Sibi Enterprises (Cebu)  
 FMC Marine Colloids  
 Fuji Xerox  
 Funsports  
 Gensana Energy Tablets  
 GMA -Channel 7 - Cebu  
 GMA-7 News and Public Affairs Department  
 GMA-7, Jessica Soho Reports  
 Hercules, C.P. Kelco, Phil., Inc.  
 Herma Shipping  
 Hong Kong Shanghai Banking Corporation  
 Kinabuchi  
 Lapanday Development Corp. (LADECO)  
 League of Corporate Foundations  
 Levi Strauss Philippines Inc.  
 Malalag Ventures Plantation, Inc. (MVPI)  
 Marine Colloid Products, Inc  
 Mellow Touch FM  
 Milo  
 MIMAROPA Regional Development Council  
 Mindanao News  
 National Museum  
 Negros Oriental Association of Travel  
 Agencies (NOATA)  
 Networks of Aquaculture Centers in Asia  
 (Bangkok, Thailand)  
 Northern Cebu Development Center, Inc.  
 Pacific Divers (Cebu)  
 Palawan Marine Craft  
 People’s Television Network  
 Petron Foundation  
 Philippine Foundation for Rural  
 Broadcasters  
 Philippine Center for Investigative  
 Journalism  
 Philippine Daily Inquirer  
 Plantation Bay  
 Policy Component TWG (DENR, DA-BFAR,  
 DILG, NGOs and POs)  
 Probe Productions, Inc.  
 Rotary Club of Bais  
 San Miguel Corporation  
 Siquijor Chamber of Commerce  
 Skynews  
 Southwinds Travel and Tours, Inc.  
 Sun Star Davao  
 Sun-Star Cebu  
 SuperCat

The Freeman  
Thirsty Juice  
Time Asia, Inc.  
Travel Village, Inc.  
Tropical Island Adventures(Cebu)  
Uldarico Bojos  
Universal Aboitiz  
USA Sports

**Local Government Units**

Autonomous Region of Muslim Mindanao  
Davao City Government  
Integrated Bar of the Philippines (IBP)  
Local Government of Mandaue City  
Masbate City Planning and Development  
Office  
Office of the Provincial Agriculture, Bohol

PNP (Minglanilla, Cebu City, Liloan,  
Mandaue City, Talisay City, Lapu-lapu  
City)  
Province of Negros Oriental  
Province of Bohol  
Province of Cebu  
Province of Davao del Sur  
Province of Masbate  
Province of Sarangani

**Others**

Local Government Academy  
United States Embassy-Office of Public  
Affairs



## APPENDIX C. CRMP TRAINING COURSES FOR COASTAL MANAGEMENT

CRMP has successfully implemented several training courses in collaboration with the Department of Environment and Natural Resources, Department of Agriculture - Bureau of Fisheries and Aquatic Resources, other government agencies and non-governmental organizations. These include:

### Integrated Coastal Management

- Participatory Coastal Resource Assessment
- Coastal Law Enforcement
- Mangrove Rehabilitation and Management
- Strategic Planning for Coastal Management
- Coastal Tourism Planning and Management
- Marine Protected Area (MPA) Establishment and Management

**Integrated Coastal Management Short-term Training Course.** This 3-day course consists of 10 sessions covering a wide range of inter-related topics such as: coastal ecosystem, concept of ICM, coastal management options and strategic planning.

The course aims to enhance the participants' awareness of coastal environmental issues and appreciate the integrated coastal management approach to address these challenges.

#### *Training Objectives:*

- Introduce the participants to the economic, social and biological importance of coastal resources
- Describe the existing institutional system of coastal resource management in the Philippines
- Describe the role of leaders and public participation in coastal management
- Explain the importance of integrated coastal management for the Philippines in general, and for the participants' area in particular
- Describe the strategic planning process and its relevance to coastal management
- Design appropriate local institutional networks to implement coastal management plans

**Participatory Coastal Resource Assessment.** This 3-day course is designed primarily for use by municipal-level trainers involved in community development for sustainable coastal resource use. It has two main purposes: first, to assist local resource managers in maximizing the contribution they can make to initial coastal resource assessment and project monitoring and evaluation; and second, to initiate dialogue and input from local community resource users in a relevant and meaningful fashion for planning purposes.

The output of this course will enable resource managers to work with local coastal resource users to generate valuable information for coastal management planning and implementation. This will be done simultaneously while improving community participation and local empowerment.

#### *Training Objectives:*

- Illustrate the coastal resource management process
- Enumerate the many benefits of a participatory coastal resource assessment
- Identify the various stakeholders in a coastal community
- Show the linkages between and among resources, people and sustainable coastal management and development
- Apply the various PCRA techniques: (a) interview, (b) transect, (c) habitat assessment
- Compile a preliminary coastal area profile based on PCRA results

- Develop a PCRA map of the local coastal management area

**Coastal Law Enforcement.** This 3-day course seeks to strengthen the enforcement of coastal laws involving deputized fish wardens, local government officials, police officers and other law enforcement units. It encourages the participation of the community in the enforcement process where such participation is sanctioned by law. At the end of the training, the participants will:

*Training Objectives:*

- Appreciate the role of law enforcement in coastal management;
- Understand environmental, fisheries and aquatic resource laws as applied in local situation;
- Map out local coastal law enforcement issues and develop strategies for effective enforcement;
- Demonstrate knowledge and skills in basic enforcement procedures;
- Formulate an operations plan for their localities.

**Mangrove Rehabilitation and Management.** This 3-day training program caters to personnel directly involved in mangrove management field implementation, such as people's organizations, technical staff of local government units, nongovernmental organizations, and relevant national government agencies. The training aims to enhance knowledge and techniques in managing mangrove forests and appreciate the integrated coastal management approach to address these challenges. At the end of the course, the participants will be able to:

*Training Objectives*

- Discuss the components of mangrove ecosystem, functions, characteristics and their relationship to coastal environment;
- Appreciate the importance of mangrove identification in management;
- Demonstrate capabilities in identifying various species of mangroves;
- Explain the techniques and requirements of establishing mangrove nurseries;
- Determine appropriate regulatory and non-regulatory techniques of mangrove forest protection and maintenance;
- Illustrate the strategies and techniques of managing natural and plantation mangrove forests including harvesting and applicable intermediate treatments,
- Identify appropriate livelihood options and alternatives in respective mangrove areas,
- Demonstrate capabilities in designing mangrove plantation plan.

**Strategic Planning for Coastal Management.** This 2-day workshop aims to impart the importance of strategic planning for coastal management to municipal-level resource managers and users.

*Training Objectives:*

- Answer basic questions on the concept of integrated coastal management and identify the major characteristics
- Define the unit of coastal management, as well as enumerate the goods and services derived from the coastal area
- Relate the coastal environmental issues of the municipality with the need for a coastal management plan
- Explain coastal management planning as a strategy
- Enumerate various coastal management options

**Coastal Tourism Planning and Management.** This 5-day course introduces participants to the overall framework of integrated coastal management and to the role of coastal tourism as an

available management option. It ties together the effects of human interventions within the coastal area to the health of the coastal ecosystem, and proposes “safe” methodologies for attaining economic security by local community members.

*Training Objectives:*

- Define planning and management processes used in creating strategic ecotourism plans (SEP)
- Endorsement of a/the local SEP, identification of key projects and development strategies by local decision-makers
- Outline of specific measures and activities for the implementation of the SEP
- Creation of a coordinating working group of public and private sector and communities for implementation

**Marine Protected Area (MPA) Establishment and Management.** This 5-day training course is designed to equip participants (LGU technical staff and local communities) with fundamental skills in establishing and managing a community-based marine protected area. Specifically, the participants, at the end of the course will:

*Training Objectives*

- Enhance their knowledge and skills on the processes involved (i.e. resource mapping, baseline data collection, management plan formulation, monitoring and evaluation) in establishing and managing a community-based marine protected areas;
- Strengthen capabilities of technical staff in facilitating MPA establishment and management processes (i.e. site identification, planning, ordinance formulation and monitoring and evaluation) with local communities;
- Demonstrate the process of formulating a MPA management plan using existing documented information and results of community consultation activities

## APPENDIX D. CRMP PUBLICATIONS AND OTHER IEC MATERIALS

### *CRMP Publications*

Courtney, C.A., J.A. Atchue III, M. Carreon, A.T. White, R. Pestaño-Smith, E.T. Deguit, R. Sievert, R. Navarro. 1998. **Coastal Resource Management for Food Security**. Coastal Resource Management Project, Cebu City, Philippines. 26 p.

CRMP. 2000. **CRMP in Mid-Stream: On Course to a Threshold of Sustained Coastal Management in the Philippines**. DENR-CMMO and Coastal Resource Management Project. Cebu City, Philippines. 100 p.

CRMP. 2003. **Modeling the Way: Lessons in Developing Capacities for Coastal Management in the Philippines**. Special Report (1996-2004), Coastal Resource Management Project, Cebu City, Philippines, 111 p.

DA-BFAR. 2004. **In Turbulent Seas: The Status of Philippine Marine Fisheries**. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines, 378 p.

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

Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government. 2001. **Philippine Coastal Management Guidebook Series**. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines. Books 1-8

Book 1: Coastal Management Orientation and Overview

Book 2: Legal and Jurisdictional Framework for Coastal Management

Book 3: Coastal Resource Management Planning

Book 4: Involving Communities in Coastal Management

Book 5: Managing Coastal Habitats and Marine Protected Areas

Book 6: Managing Municipal Fisheries

Book 7: Managing Impacts of Development in the Coastal Zone

Book 8: Coastal Law Enforcement

Deguit, E.T., R.P. Smith, W.P. Jatulan and A.T. White. 2004. **Participatory Coastal Resource Assessment Training Guide**. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines. 134 p.

Environmental Legal Assistance Center. 2004. **Mending Nets: A Handbook on the Prosecution of Fishery and Coastal Law Violations**. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines. 192 p.

- Green, S.J., A.T. White, J.O. Flores, M.F. Carreon III and A.E. Sia. 2003. **Philippine Fisheries in Crisis: A Framework for Management**. Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines. 77 p.
- Green, S.J., J.O. Flores, J.Q. Dizon-Corrales, R.T. Martinez, D.R.M. Nuñal, N.B. Armada and A.T. White. 2004. **The Fisheries of Central Visayas: Status and Trends**. Coastal Resource Management Project of the Department of Environment and Natural Resources and the Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, Cebu City, Philippines. 159 p.
- Hüttche, C.M., A.T. White and M.M.M. Flores. 2002. **Sustainable Coastal Tourism Handbook for the Philippines**. Coastal Resource Management Project of the Department of Environment and Natural Resources and the Department of Tourism, Cebu City, Philippines. 144 p.
- Melana, D.M., J.A. Atchue III, C.E. Yao, R. Edwards, E.E. Melana and H.I. Gonzales. 2000. **Mangrove Management Handbook**. Department of Environment and Natural Resources, Manila, Philippines through the Coastal Resource Management Project, Cebu City, Philippines. 96 p.
- Uychiaoco, A.J., S.J. Green, M.T. dela Cruz, P.A. Gaité, H.O. Arceo, P.M. Aliño, and 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., Voluntary Service Overseas, University of the Philippines Center for Integrative and Development Studies, Coastal Resource Management Project, and Fisheries Resource Management Project. 110 p.
- Walters, J.S., J. Maragos, S. Siar and A.T. White. 1998. **Participatory Coastal Resource Assessment: A Handbook for Community Workers and Coastal Resource Managers**. Coastal Resource Management Project and Silliman University, Cebu City, Philippines. 113 p.
- White, A.T. and A. Cruz-Trinidad. 1998. **The Values of Philippine Coastal Resources: Why Protection and Management are Critical**. Coastal Resource Management Project, Cebu City, Philippines. 96 p.

### ***CRMP Progress Reports***

- CRMP. **Annual Reports 1996-2003**. Coastal Resource Management Project, Cebu City, Philippines.
- CRMP. **Semi-Annual Reports 1996-2003**. Coastal Resource Management Project, Cebu City, Philippines.
- CRMP. 2004. **Completion Report: The Coastal Resource Management Project-Philippines 1996-2004**. Coastal Resource Management Project, Cebu City, Philippines. 179 pp.

### ***CRMP Coastal Environmental Profiles***

- Arquiza, Y.D. 1999. **Rhythm of the Sea: Coastal Environmental Profile of San Vicente, Palawan**. Coastal Resource Management Project. Cebu City, Philippines. 131 p.

De Jesus, E.A., D.A.D. Diamante-Fabunan, C. Nañola, A.T. White and H.J. Cabangon. 2001. **Coastal Environmental Profile of the Sarangani Bay Area, Mindanao, Philippines**. Coastal Resource Management Project, Cebu City, Philippines. 102 p.

Green, S.J., R.D. Alexander, A.M. Gulayan, C.C. Migriño III, J. Jarantilla-Paler and C.A. Courtney. 2002. **Bohol Island: Its Coastal Environmental Profile**. Bohol Environment Management Office, Bohol and Coastal Resource Management Project, Cebu City, Philippines. 174 pp.

Green, S.J., R.P. Monreal, A.T. White and T.G. Bayer. 2000. **Coastal Environmental Profile of Northwestern Bohol, Philippines**. Coastal Resource Management Project, Cebu City, Philippines. 113 p.

Sotto, F.B., J.L. Gatus, M.A. Ross, M.F.L. Portigo and F.M. Freire. 2001. **Coastal Environmental Profile of Olango Island, Cebu, Philippines**. Coastal Resource Management Project, Cebu City, Philippines. 129 p.

Valle, I.S., M.C.B. Cristobal, A.T. White and E.T. Deguit. 2000. **Coastal Environmental Profile of the Malalag Bay Area, Davao del Sur, Philippines**. Coastal Resource Management Project, Cebu City, Philippines. 127 p.

Yambao, A.C., A.T. White, W.E. Ablong and M.R. Alcala. 2001. **Coastal Environmental Profile of Negros Oriental, Philippines**. Coastal Resource Management Project, Cebu City, Philippines. 107 p.

### ***CRMP Training Course Manuals***

Integrated Coastal Management Participatory Coastal Resource Assessment  
Strategic Planning for Coastal Management Mangrove Rehabilitation and Management  
Marine Protected Area Establishment and Management  
Coastal Law Enforcement  
Coastal Resource Management Monitoring and Evaluation

### ***Tambuli Newsletter Articles (7 Issues)***

***Tambuli* (7 issues) was published by CRMP as a bi-annual newsletter targeted at government, non-government and academic professionals involved with implementation and research related to coastal management.**

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### **COMIC BOOKS**

1. *Tawag ng Dagat Para Sa Pagbabago* (The Sea's Call to Change)– a story about illegal fishing
2. *Bakit Naglaho ang Buhay sa Dagat?* (Why is the Sea Dying?) – a story about overfishing

### **POSTERS**

1. A Call for Leadership. On the need for developing leaders for coastal resource management. (English and Cebuano).
2. Coastal Alert! Calling attention to the degradation of the coastal environment (English and Cebuano).
3. For Future's Sake. On the need to manage our coastal resources to ensure their long-term sustainability. (English and Cebuano).
4. Imagine the future without mangroves. On the importance of mangroves (bilingual).
5. Human Impacts on the Philippine Coastal Environments. Illustrates the range of activities that impact on coastal environments and why CRM is a strategy that could balance coastal zone use and coastal zone care. (English).
6. Month of the Ocean posters. 'It's their Ocean too, and their Future'; 'Ang dagat ay buhay, ating kinabukasa'y, dito nakasalalay' - Announcements on the celebration of Month of the Ocean in the Philippines by virtue of Presidential Proclamation No. 57. (English and Filipino).
7. Philippine Fisheries in Decline: No Time To Lose. Calling attention to the decline in fish catch and the need to: (1) reduce fishing effort to sustainable levels; 2) protect and manage coastal habitats; 3) stop illegal and destructive fishing practices. (English and Cebuano)

### **WEB SITE**

1. <http://oneocean.org>. Launched on January 26, CRMP's official website serves as a source of information on coastal resource management and other developments in the Philippines and around the world related to the marine and coastal environment. The site incorporates, among other features, pages for CRMP, the International Year of the Ocean, and "Over Seas," an on-line magazine on coastal resource management. It is designed to appeal to a wide audience but is especially targeted at media practitioners, policymakers, business and other key sectors with the wherewithal and influence to "make a difference" in the worldwide effort to promote the sustainability of our seas.
2. Ocean Ambassadors at <http://oneocean.org/ambassadors>. Uses migratory animals such as sea turtles, dolphins, whales and others to highlight the message that the loss of one resource in one part of the sea can have repercussions globally. It features a turtle tracking project undertaken jointly by CRMP, Pawikan Conservation Project of the Department of Environment and Natural Resources, World Wildlife Fund-Philippines, and Smithsonian Institution.
3. Participatory Coastal Resource Assessment On-line at <http://oneocean.org/pcra>. Explains methodologies of participatory coastal resource assessment.



4. Olango Birds and Seascape Tour at [http://oneocean.org/ambassadors/migratory\\_birds/obst](http://oneocean.org/ambassadors/migratory_birds/obst). On-line presentation explaining the features of the community-based ecotourism venture established by CRMP at the Olango Island Wildlife Sanctuary.

#### VIDEO/AUDIO MATERIALS

1. *Ang Dagat ay Buhay* (Our Seas, Our Life). This song, created by leading Filipino composer Vehnee Saturno and performed by Cris Villonco, is the theme song of the I Love the Ocean Movement. It speaks about the importance of the ocean to human life and how it behooves us all to protect it.
2. *Kapitan Barongoy* Radio Drama Series. A radio drama series featuring a comedy/fantasy woven around the adventures of the lead character, a flying fish called Kapitan Barongoy, and three other characters, Dorica, Christian and Cordilla, who are humans. It paints a bleak picture of destruction under the sea from the point of view of sea creatures. While using entertainment story lines, the drama series is a valuable source of information on coastal resource management and provides practical lessons on ways to protect and conserve the marine and coastal environment. The series, a co-production of CRMP, DENR-CEP and GMA Network, was aired for six months (February-August) over GMA Network's DYSS. It reached an estimated audience of 35,000 in Cebu, Bohol, Siquijor, Negros Oriental, Southern Leyte, Western and Northern Mindanao, Western Samar, Camiguin, Davao, Zamboanga, and General Santos City. This radio series was awarded as best radio drama in the provincial category by the Kapisanan ng mga Brodkaster sa Pilipinas "1997 Golden Dove Award".
3. *Karaniwang Tao MTV*. Based on the song "Karaniwang Tao" (Ordinary Citizen) by one of the Philippines' foremost environmental artists (Joey Ayala), this three-minute MTV features CRM-relevant video clips and highlights the role and impact of ordinary human activities on the country's natural resources. Developed for showing at the National Convention of the League of Municipalities of the Philippines in October, the video has found use as workshop icebreaker and takeoff point for discussion in ICM training activities at both the national and local levels.
4. *Sigaw ng Karagatan*. Adapted and re-edited from the AgriSiyete video series on CRM, this seven-minute video documentary was presented at the National Convention of the League of Municipalities of the Philippines in Manila on October 9. Produced in Filipino, this video documentary has done the rounds of schools and special audiences and serves as a most effective discussion tool in CRMP's training and information-education programs.
5. *Tungo sa Bagong Umaga*. This video documentary features the six winners of the 1998 Search for Best Coastal Resource Management Programs in the Philippines. A shorter version was produced as a promotional material for the Search.
6. *TV/Radio Plugs for Ocean Month*. Two TV plugs and one radio plug were produced in cooperation with the Philippine Information Agency, and two TV and two radio plugs with ABS CBN Foundation. These plugs focused on the need for marine conservation.
7. *Video Course on the Establishment of Community-Based Marine Sanctuary*. Produced (in Filipino) in cooperation with the Technology and Livelihood Resource Center, GMA Network and Silliman University, this seven-part video series describes the framework and process prescribed by experts for the establishment of community-based marine sanctuaries. The series covers the following topics: Overview of CRM, Framework for the Establishment of Community-Based Marine Sanctuaries, Community Organizing, Community Education, Physical Establishment of a Marine Sanctuary, Legislation, and Sustainability. The video was aired on GMA Network's educational TV program

- AgriSiyete from March 31 to April 8. Copies were distributed to local governments and non-governmental organizations and used as visual aid in ICM training and workshops. Print materials (English and Filipino) were also produced as collateral materials.
8. Video course on Coastal Resource Management. Produced (in Filipino) in cooperation with the Technology and Livelihood Resource Center, GMA Network and GreenCom-Philippines, this 10-part video series is a comprehensive introduction to coastal resource management. It describes the status of coastal resources in the country, the importance of community participation and collaborative management in CRM and features various stories on communities that have successfully implemented CRM. This video series was awarded in 1997 as “Best Information Tool” in the Television/Video Category by the Public Relations Organization of the Philippines.
  9. “Colors of the Sea” — Children’s Video Series (in Filipino). Six episodes are included in this series: “Coastal Crossroads”, which speaks about the interconnectedness of land and marine ecosystems; “A House for Hermie” (about coral reefs); “Sea of Trees” (about mangroves); “Treasures of the Sea” (the importance of marine biodiversity); “Don’t Teach Your Trash to Swim” and “I Love the Ocean”. Produced in cooperation with ABS CBN Foundation, these episodes continue to be aired as part of *Sineskwela*’s summer TV lessons.
  10. The Fisher and the Sea – a video production for children telling the story of Timoteo Menguito (Nong Toti) and his life as a “sea guardian”. Produced in cooperation with ABS CBN Foundation *Sineskwela*.
  11. Big Fish, Small Fish – a video production for children explaining how fish are overharvested. Produced in cooperation with ABS CBN Foundation’s *Sineskwela*.
  12. Compilation of various TV coverage of CRMP-assisted CRM Showcase Tours in Davao Provinces, Masbate Province, and Region 7.

## **CD PRODUCTIONS**

1. CRMP Publications on CD. A compilation of major CRMP publications plus:
  - a. Let’s Talk About Fish. Inter-active movie featuring fish parts and other interesting fish facts
  - b. The Mangrove and Life Within. Animated illustration of the life processes within the mangrove ecosystem
  - c. A Sea Story. Animated presentation featuring different seascapes and marine species
  - d. The CRMP Guidebook Series Microsoft PowerPoint Presentation
  - e. The Biology of Reef Fish (poster)
  - f. Paddling Up the Cambuhat River (promo poster for the Cambuhat River and Village Tour)
  - g. Paddling Up the Cambuhat River (brochure)
  - h. For Future’s Sake (poster)
  - i. Human Impacts on the Philippine Coastal Environment (poster)
  - j. The Mangrove and Life Within (poster)
  - k. Restore Our Mangrove Habitat for Food Security (poster)
  - l. Hop on the Olango Birds and Seascape Tour (poster)
  - m. Proposed Mangrovetum Layout for Boyoan Mangrove Association (poster)
  - n. Facts About the Coral Reef Community (poster)
  - o. Olango Birds and Seascape Tour (brochure)
  - p. Di Totoong Walang Pagkaubos ang Yamang-Dagat (poster — Pilipino)
  - q. Philippine Fisheries in Decline — No Time To Lose (poster – Visayan)

- r. Philippine Fisheries in Decline – No Time To Lose (poster – English)
- s. Hop on the Olango Tour (brochure)
- t. Our Coral Reefs... We can still make it right (poster)
- u. Seagrass Life Cycle and Food Web (poster)
- v. Coastal Resource Management for Food Security
2. Municipal Coastal Database 2000. Municipal coastal database installer plus:
  - a. ICM training modules
  - b. Marine protected area training modules
  - c. PCRA training modules
3. PCRA Interactive Presentation. Inter-active presentation explaining the methodologies of participatory coastal resource assessment

**OTHERS (Brochures etc.)**

1. The Coastal Resource Management Project: Promoting leadership for sustainable coastal resource management. A leaflet that describes the rationale, goals and objectives of CRMP.
2. Coastal Alert! A leaflet that describes the rationale, goals and objectives of CRMP.
3. Coastal Alert! # 1. This publication is the print edition of the CRMP website, <http://oneocean.org> and contains selected stories and other articles posted on the website. It is intended to bring the CRM message to a bigger and wider national audience that has relatively limited access to the Internet technology.
4. Coastal Alert! Special Edition on the Ocean Ambassadors homepage. Contains excerpts from articles posted on the Ocean Ambassadors website (see Ocean Ambassadors below). Produced for the launching of the website.
5. Coastal Alert! Special Edition on the Conference of Coastal Municipalities of the Philippines. Contains proceedings of the conference held in May 1999 during the first celebration of the Month of the Ocean in the Philippines. The special edition includes excerpts from the conference speeches, workshop presentations and outputs as well as the 15- point resolution formulated by the coastal mayors requiring executive and legislative actions.
6. Saving the Philippine Seas. Speech of His Excellency, President Joseph Ejercito Estrada at the Conference of Coastal Municipalities of the Philippines held in May 1999 printed in pamphlet form.
7. Guide to the Video Course on the Establishment of Community-based Marine Sanctuaries (Filipino and English). This seven-part Guide serves as a print collateral material to enhance retention and learning of viewers of the video series Establishment of Community-based Marine Sanctuaries.
8. Save Our Seas Kapitán Barongoy Coloring Book. An educational coloring book that provides activity for children as well as messages of concern on the marine environment.
9. Call to Action. This flyer contains a list of simple practices by which people can help minimize the degradation of the marine environment. More than 100,000 copies of this flyer were distributed during the Our Seas, Our Life Exhibit and other IEC activities.
10. Lost Reefs. Produced in inexpensive craft paper, this leaflet discusses the sad state of Philippine coral reefs and carries specific recommendations for individual and collective action to rehabilitate and restore these important resources. Available in English, Filipino and Cebuano.
11. Mangroves Brochure. A full-color ‘fold-out’ bilingual (English and Cebuano) brochure that describes the importance of the mangrove ecosystem.

12. Mangroves in Trouble. Produced in inexpensive craft paper, this leaflet discusses the sad state of Philippine mangroves and carries specific recommendations for individual and collective action to rehabilitate and restore these important resources. Available in English, Filipino and Cebuano.
13. Our Seas, Our Life Exhibit Guide. To meet public demand for a more comprehensive popular literature on the importance of marine and coastal resources, CRMP produced this 80-page “Our Seas, Our Life Exhibit Guide” which describes the Exhibit in detail and provides additional information about marine and coastal resources.
14. Olango Birds and Seascape Tour Brochure. A highly visual promotional material and guide to an ecotour developed and managed by the Enterprise Development Component of CRMP.
15. ‘I Love the Ocean’ Movement. A one page leaflet that describes the rationale and objectives of the movement, emphasizing the need for individual and collective action in protecting our seas and coastal resources.
16. The Blue Tapestry: A Community Arts Project Celebrating the Philippine Centennial and the International Year of the Ocean. This material describes the Blue Tapestry project and provides guidelines for its implementation as well as examples of how to get communities together to discuss their concerns and sentiments about their coastal environment. It is used to promote participation in the project, particularly of the different Girl Scouts councils in coastal municipalities.
17. I Love the Ocean labels/bumper sticker. Initially produced and distributed at the National Convention of the League of Municipalities, this sticker and its message have become a symbol of the fast-growing I Love the Ocean Movement. The sticker uses the heart symbol to express the word ‘love’ and the heart is done in blue. Two flying fish hover above the word “ocean”.
18. I Love the Ocean Membership Card, Pin and Creed. A specific objective of CRMP is to “mainstream” CRM issues and concerns in the national consciousness and foster a process that will lead to a coastal environmental movement in the Philippines. Translated into a rallying theme – “I love the ocean” – initiatives were undertaken to realize this movement through social marketing activities that would encourage public and community mobilization and advocacy on CRM issues. Each member was issued a blue heart pin and a membership card, at the back of which is printed the “I Love the Ocean Creed.”
19. I Love the Ocean T-shirts. These T-shirts, courtesy of Islands Souvenirs (a retail chain selling T-shirts, caps, and other garment items), were distributed to the press and special guests during a press conference for the opening of the “Our Seas, Our Life” Exhibit at SM City-Cebu in February. The shirts carry the Movement’s logo and the I Love the Ocean Creed.
20. Islands Souvenirs I Love the Ocean line. In support of CRMP’s IEC activities, Islands Souvenirs introduced a sub-line called “I Love the Ocean” consisting of T-shirts, caps and bags. The company donated part of the proceeds from the sale of these products to the I Love the Ocean Movement.
21. oneocean.org postcard. This postcard was a convenient and effective way to promote the website to the project’s various target groups and audiences.
22. ‘Sea to See’ CRM Showcase Tours in Bohol; Cebu; Davao Provinces; Masbate Province; Negros Oriental; San Vicente, Palawan; and Sarangani Province. These are study tours developed with local partners and various assisting agencies and organizations featuring best practices in CRM.
23. Masbate CRM Interpretive Center. Developed with the City of Masbate and various assisting agencies and organizations, the CRMIC introduces visitors to the natural and

- man-made factors that impel local initiatives in CRM. The Center also serves as a hub for environmental information and education in Masbate Province, and the take-off point for the Masbate CRM Showcase Tours
24. Information and interpretive materials (brochures, maps, signage, exhibits, interpreters' sourcebooks, etc.) to support the CRM Showcase Tours

**BRIEFING MATERIALS (Transparencies)**

1. Participatory Coastal Resource Assessment (PCRA) and CRMP Briefing Kit in Cebuano. Produced as overhead transparencies and flipcharts and distributed to Learning Area coordinators during the December quarterly meeting, these Cebuano briefing materials serve as training, communication and education tools at the barangay (village) level.
2. Briefing Package on CRMP
3. Introduction to Coastal Resource Management
4. Economic Valuation of Coastal Resources
5. Food Security and Coastal Resources
6. Into the Mainstream: Promoting Coastal Resource Management in the Philippine National Social Agenda
7. Integrated Coastal Management
8. Mangrove Management
9. Earthwatch Research Results
10. CRMP Revised Results Framework
11. Philippine Situational Analysis of coastal resources
12. Eco-Tourism Framework
13. Enterprise Development Framework
14. Information, Education, Communication (IEC) Framework

## **APPENDIX E. PROJECT EMPLOYEES AND CONSULTANTS**

The Coastal Resource Management Project - Philippines is a nine-year (1996-2004) technical assistance project of the Department of Environment and Natural Resources, funded by the United States Agency for International Development. It operates in six “learning areas” in Olango, Cebu; Negros Oriental; Northwest Bohol; San Vicente, Palawan; Malalag Bay, Davao del Sur; and Sarangani Province including General Santos City in partnership with the Department of Agriculture-Bureau of Fisheries and Aquatic Resources, Department of Interior and Local Government, Department of Tourism, local government units, non-governmental organizations, academe, private sectors, and people’s organizations.

### **PROJECT MANAGEMENT AND TECHNICAL SUPPORT**

Tetra Tech EM Inc.

### **TEAM FIRMS (1996-2000)**

American Institute for Research  
Coastal, Ocean, Reef and Island Advisors Ltd.  
Economic Development Foundation  
Global Vision Inc.  
Helber, Hastert and Fee Planners  
Mote Environmental Services Inc.  
Pacific Management Resources Inc.  
Pacific Rim Innovation and Management Exponents Inc.  
Plan Pacific  
Woodward-Clyde Philippines

### **NGO/ACADEME PARTNERS**

Asian Institute of Journalism and Communication, Inc.  
Davao Oriental State College of Science and Technology  
Environmental Legal Assistance Center, Inc.  
First Consolidated Bank Foundation, Inc.  
Foundation for a Sustainable Society, Inc.  
Geoplan Cebu Foundation, Inc.  
Haribon Foundation, Inc.  
Institute for Small Farms and Industries, Inc.  
Rtn. Martin “Ting” Matiao Foundation, Inc.  
League of Municipalities of the Philippines  
Mindanao State University - General Santos Foundation, Inc.  
Philippine Business for Social Progress  
Philippine Center for Marine Affairs  
Silliman University Center of Excellence in Coastal Resource Management  
Trends-MBL  
University of the Philippines-Marine Science Institute  
University of the Visayas Foundation, Inc.  
University of San Carlos

## MANAGEMENT

### Executive Management

Catherine A. Courtney, Ph.D., *Chief of Party* (1996-2002)  
 Alan T. White, Ph.D., *Deputy Chief of Party* (1996-2002); *Chief of Party* (2002-2004)  
 Marciano F. Carreon III, *Deputy Chief of Party* (2002-2003)  
 William P. Jatulan, *Deputy Chief of Party* (2003-2004)  
 Evelyn T. Deguit, *Core Advisor, Community Development and Organizing* (1996-2004)  
 Michael A. Ross, *Core Advisor, Reporting and Monitoring* (1998-2000)  
 Rebecca P. Smith, *Core Advisor, IEC* (1997-2004)  
 Rodrigo U. Fuentes, *Core Advisor, Institutional Development* (1999-2001)  
 Annabelle Cruz-Trinidad, *Core Advisor, Policy* (1997-2003)

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Aristeo A. Nacion II, *Financial Controller* (1996-2003)  
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 Ada E. Arrojado, *Encoder* (2001-2002)  
 Ardale M. Retubado, *Receptionist/Encoder* (2002-2004)  
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 Vicencio B. Hilario, *Driver/Messenger* (1999-2004)  
 Godofredo Ochea, *Utility* (1996-2004)

### Information Management and Publication Support

Allan Gonzales, *Database Programmer*  
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 Cleofe D. Reyes, *Document Control Specialist* (1998-2000)  
 Ralph Omega, *Document Control Specialist* (1999-2004)  
 Mark Philip M. Tiu, *Database Programmer* (2000-2001)  
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 Dexter Allen Besa, *Graphics Artist* (1999-2003)  
 Leticia Dizon, *Technical & Copy Editor* (2000-2001)  
 Marie Sol S. Colocado, *Publications/Technical & Copy Editor* (2003-2004)

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Aileen Delmo, *Area Coordinator* (1999-2001)  
Rhiza Geconcillo, *Area Coordinator* (1997-2001)  
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### *Bohol*

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### *Cebu*

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### *Sarangani*

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and supported by the United States Agency for International Development  
with technical and management support provided by Tetra Tech EM, Inc.

