



Best
COASTAL MANAGEMENT PROGRAMS

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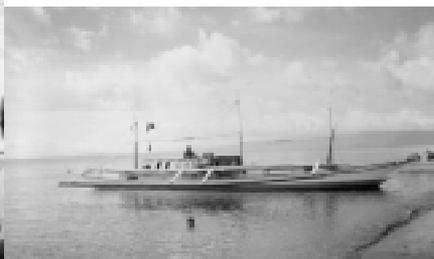


League of Municipalities of the Philippines

and



Department of Environment and Natural Resources



Coastal Resource Management

In many coastal communities around the country today, fisherfolks, encouraged and supported by their local governments and working with the private sector, non-governmental organizations, and the academe, are providing long-term solutions to the problems of resource depletion and environmental degradation in their areas. In these communities, coastal resource management (CRM) has become, or is on its way to becoming, a way of life for all.

In a nutshell, CRM is all about the sustainable use and management of coastal resources. In the Philippines, a widely accepted definition is one put forward by CRM experts White and Lopez in a 1991 publication:

CRM comprises those activities that achieve sustainable use and management of economically and ecologically valuable resources in coastal areas, which consider interaction among and within resource systems, as well as those of humans and their environment.

CRM is also referred to in various quarters as ‘coastal management’, ‘coastal zone management’, ‘coastal area management’, and ‘integrated coastal management.’ In more specific terms, it means planning, implementing, and monitoring the sustainable use of coastal resources.

The process must be ideally participatory, that is, it must be consultative, multisectoral and interdisciplinary. It must consider the interconnectedness of the various ecosystems. It must encourage cooperation among individuals, among communities, and among countries. It must be rooted in the truth that we all share but one coastline and one ocean.

League of Municipalities of the Philippines

The League of Municipalities of the Philippines (LMP) was created by virtue of Republic Act 7160, otherwise known as the Local Government Code of 1991. It is the organization of the 1,540 municipalities in the Philippines.

As an organization, LMP serves as venue for the municipalities to articulate, ventilate, and crystallize issues affecting municipal government administration, and secure solutions to these issues through proper and legal means.

The powers and functions of LMP are as follows:

- ◆ Assist the national government in the formulation and implementation of the policies, programs, and projects affecting municipalities as a whole
- ◆ Promote local autonomy at the municipal level
- ◆ Adopt measures for the promotion of the welfare of all municipalities and the officials and employees
- ◆ Encourage people's participation in local government administration in order to promote united and concerted action for the attainment of countrywide development goals
- ◆ Supplement the efforts of the national government to create opportunities for gainful employment within the municipalities
- ◆ Give priority to programs designed for the total development of the municipalities in consonance with the policies, programs, and projects of the national government
- ◆ Serve as forum for crystallizing and expressing ideas, seeking the necessary assistance of the national government and providing the private sector avenues for cooperation in the promotion of the welfare of the municipalities
- ◆ Advocate the need for a continuous personnel and staff training program toward the development of the local bureaucracy as an effective vehicle of the service delivery effort of the national government
- ◆ Acquire, accept, maintain, dispose, donate, convey and/or otherwise hold real personal properties including intellectual rights and copyrights
- ◆ Engage in economic enterprise
- ◆ Generate and solicit funds including grants and credits from all sources

Department of Environment and Natural Resources (DENR)

Coastal area management may be considered as an integral segment of the DENR's responsibilities. The agriculture and natural resources sectors were previously under a single department called the Department of Agriculture and Natural Resources. A series of legal reforms undertaken before the 1990's provided the DENR with significant mandates related to CRM, which still prevail even after fisheries and the aquatic resources sector were placed under the responsibility of the BFAR.

To pursue its mandates, DENR has been involved in policy issuances and programs that focus on the management of mangroves and associated terrestrial and aquatic flora and fauna within the marine zone. It has not directly involved itself, however, in fishery regulatory, licensing, research, and enforcement functions, which are presently being exercised by BFAR.

In 1993, the Department began addressing its marine concerns by including seascapes in the category of protected areas under the NIPAS Act, which it was tasked to implement. It also launched its Coastal Environment Program (CEP) through DENR Administrative Order No. 19 series of 1993, which aimed to uplift of the socio-economic conditions of the country's coastal population through the protection of the environment and the implementation of strategic interventions on resource assessment, community organizing, information and education campaigns, and the identification and establishment of impact sites and seascapes.

Despite the enactment of the LGC, the DENR retained many environmental management functions related to forest management in forest lands not devolved to the LGUs; mines and geo-sciences management which does not fall under the purview of the Small-Scale Mining Act; environmental management, specifically the implementation of the Environmental Impact Assessment (EIA) System for certain businesses and projects; management of all protected areas, including those under the NIPAS; land management; and ecosystems research.

Many of the basic functions that relate to CRM have been devolved by the DENR to the LGUs. These include:

- ◆ Implementation of community-based forestry projects: integrated social forestry projects, new regular reforestation projects, forest land management agreements, and other community forestry projects;
- ◆ Management and control of communal forests with an area not exceeding 50

sq. km;

- ◆ Management, protection, rehabilitation and maintenance of small watershed areas as identified by DENR;
- ◆ Enforcement of forestry laws in community-based forestry projects and communal forests;
- ◆ Establishment, protection, and maintenance of tree parks; greenbelt areas; and other tourist attractions in areas identified by DENR;
- ◆ Implementation of the Rehabilitation in Conservation Hotspots project and the Conservation of Rare and Endangered species project in areas identified by DENR;
- ◆ Enforcement of pollution control laws;
- ◆ Solid waste disposal and other environmental management systems related to hygiene and sanitation; and
- ◆ Implementation of cease-and-desist orders issued by the Pollution Adjudication Board (PAB).

Coastal Environmental Program (CEP)

In an effort to use a holistic approach to environmental protection, management and conservation, the Department of Environment and Natural Resources (DENR) created the Coastal Environmental Program (CEP) on April 22, 1993 through Administrative Order No. 19. The CEP covers 14 coastal regions and the Cordillera Autonomous Regions (CAR). The CEP was one of a number of legislative initiatives passed to protect and better manage our nation's coastal and marine resources. It was prompted by the government's recognition that environmental quality along many coastlines of our country is now in critical condition.

To achieve its objectives, CEP employs the following strategies:

- ◆ Conservation and management of coastal habitats
- ◆ Protection of endangered species
- ◆ Monitoring and control of coastal pollution
- ◆ Inventory assessment of coastal resources
- ◆ Applied research
- ◆ Development of special projects
- ◆ Establishment of coastal/marine protected areas

II. THE SEARCH

As a means to identify municipal models of CRM, and to recognize them so that others can learn from and be inspired to follow them, the LMP and the CRMP launched the Search for Best Coastal Management Programs on October 9, 1997 during the 1997 LMP Convention. Under a Memorandum of Agreement signed in August 1997, LMP and CRMP, sharing a common interest in promoting good coastal management practices, agreed to “jointly develop a work program, screening process, and guidelines for the implementation” of the Search.

The Search for Best Coastal Management Programs for 2000 was launched in May 1999 during the Conference of Coastal Municipalities at the Manila Midtown Hotel in Ermita, Manila. Taking on the lead role as Search organizers, the DENR and LMP signed a new Memorandum of Agreement in May 2000 on the conduct of the Search for 2000.

The Search has five major objectives:

- ◆ Recognize the LGU’s achievements in CRM
- ◆ Document CRM practices so that these may be replicated in other areas as appropriate
- ◆ Define CRM standards to be used by LGUs
- ◆ Encourage LGUs to undertake or find ways to improve their own CRM programs
- ◆ Promote the development of intermunicipal linkages in support of integrated management initiatives

The term ‘Best CRM Program’ is taken to mean the total package of management tools, projects, approaches, techniques, and values employed by each municipality in the performance of its role as custodian of the coastal resources under its jurisdiction. More than the performance of the local officials managing, overseeing or supporting CRM, the Search recognizes institutional performance and thus emphasizes the sustainability and totality of CRM programs over the specific merits of their components or of any project a municipality may now be pursuing related to coastal resource use or conservation.

III. SELECTION PROCESS

The rules and mechanics of the Search are the following:

- ◆ All municipal local government units with ongoing projects and at least three years of continuing experience in the management of coastal resources may be nominated to the Search. Municipalities that are recipients of awards of the same nature and scope in the last three years shall be excluded from the Search. Winners of the 1998 Search are also excluded from joining the Search.
- ◆ By its definition of the term 'Best CRM Program,' the Search necessarily limits each municipality to only one entry. Nominations must be done through or by the office of the Chief Executive of the municipal government.
- ◆ The nomination forms are designed to elicit basic program information, such as the name of the local government, projects and activities implemented, administrative systems and procedures being adopted, investment support, system of community participation, etc.
- ◆ The nominations are classified into two categories: Programs Receiving External Assistance and Programs Not Receiving External Assistance.

Eighteen nominees joined the Search for 2000. The geographical distribution of the nominees is shown in Table 1.

Table 1. List of Nominees.

Nominee	Province	Region	Type of Assistance
A. Altavas	Aklan	VI	With external assistance
B. Basey	Western Samar	VIII	With external assistance
C. Calape	Bohol	VII	With external assistance
D. Claveria	Cagayan	II	Without external assistance
E. Cortes	Surigao del Sur	XIII	Without external assistance
F. Lawaan	Eastern Samar	VIII	With external assistance
G. LIPASECU (Libertad, Pandan, Sebaste, Culasi)	Antique	VI	With external assistance
H. Maragondon	Cavite	IV	Without external assistance
I. Palompon	Leyte	VIII	Without external assistance
K. Prieto Diaz ¹	Sorsogon	V	With external assistance
L. Puerto Galera	Oriental Mindoro	IV	With external assistance
M. Sablayan	Oriental Mindoro	IV	With external assistance
N. San Juan	Batangas	IV	Without external assistance
O. San Miguel	Leyte	VIII	With external assistance
P. San Vicente	Palawan	IV	With external assistance
Q. Siay	Zamboanga del Sur	IX	Without external assistance
R. Sibulan	Negros Oriental	VII	With external assistance
S. Tukuran	Zamboanga del Sur	IX	Without external assistance

¹ Prieto Diaz was excluded from further evaluation because it was one of the Search winners in 1998.

A National Search Committee (NSC) has been convened to undertake a two-stage evaluation of the nominations.

- The composition of the NSC is as follows:
- ◆ Department of Environment and Natural Resources (DENR)
 - ◆ Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR)
 - ◆ Department of Interior and Local Government (DILG)
 - ◆ Department of Science and Technology – Philippine Council for Aquatic and Marine Research and Development (DOST-PCAMRD)
 - ◆ Center of Excellence in Coastal Resources Management, Silliman University (COE-CRM)
 - ◆ LMP
 - ◆ CRMP

Figure 2 presents the selection process. The criteria used for all stages of the Search are presented in Figure 3. The NSC’s decision is final and irrevocable.

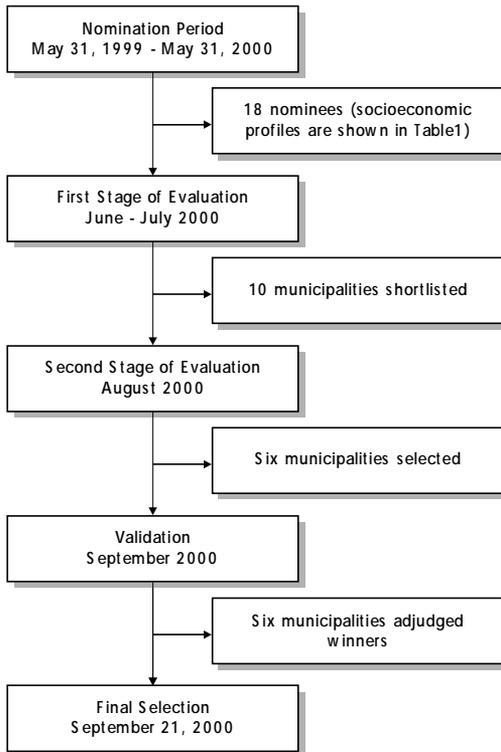


Figure 2. The selection process of the Search.

Table 2. Socioeconomic profile of the Search for Best Coastal Management Programs nominees.

Nominee	Land Area (km²)	Coastline (km unless indicated otherwise)	Population (as of Sept 1995 unless indicated otherwise)	No. of barangays (number of coastal barangays in parentheses)	No. of registered fishers	Major economic activities	Major Coastal habitats	Major CRM problems
Altavas, Aklan	91.66	7.4	21,402	14 (4)	309	Fishing, farming, trading, tourism, commerce/ business, and cottage industry	Mangroves	Political intervention and BFAR province inaction on fishpond problem
Basey, Western Samar	532.72	55.6	27,631	32	1,029	Farming, livestock and swine production, fishing, and cottage industry	Coral reefs and mangroves	Low awareness of fisherfolk, declining fish catch, presence of coliform in the water, and lack of alternative livelihood
Calape, Bohol	82.18	28.0	26,896 (1998 est.)	33 (18)	611	Fishing, farming, livestock, aquaculture, and business and trade	Coral reefs and mangroves	Illegal fishing and lack of environmental awareness by the coastal communities
Claveria, Cagayan	194.00	27.7	25,363	41 (12)	1,812	Farming, fishing, merchandizing, furniture-making, and cottage industry	Coral reefs	Weak law enforcement
Cortes, Surigao del Sur	130.59	31.0	13,054	12 (10)	490	Coco farming, rice farming, fishing, seaweed production, and upland farming	Coral reefs and mangroves	None mentioned
Lawaan, Eastern Samar	167.55	14.0	10,856	16 (8)	579	Copra making, farming, fishing, and wholesale and retail business Fishing, farming,	Coral reefs and mangroves	Illegal fishing activities and insufficient funds
LIPASECU (Libertad, Pandan, Sebaste, Culasi) in	436.06	68.0	84,098	107 (53)	3,976	cottage industry, livestock, small and medium enterprise, labor, and business Farming, fishing, small-	Coral reefs, sea grasses and mangroves	Differences in the fisheries ordinances among the municipalities and sustainability of the FARMC
Antique Maragondon, Cavite	165.49	No data	No data	1 coastal barangay	109	scale enterprises, and medium-scale industry Farming, fishing, micro	Coral reefs and mangroves	Unavailability of resources (financial, equipment, personnel)
	128.46	36.0	28,384	50 (26)	2,458	entrepreneurship,	Coral reefs and	Political protégé mentality,

Palompon, Leyte	64.08	18.0	21,173 (2000 projection)	23 (19)	319	Farming, fishing, shell-craft industry, and aquaculture	manufacturing	mangroves	sole-out mentality, and ignorance of CRM issues
Prieto Diaz, Sorsogon ¹	253.47	42.0	21,000 (1999 est.)	13 (12)	12 (7)	Tourism and beach industry	merchandising, agriculture and fishing, carpentry, and transportation	Coral reefs and mangroves	None mentioned
Puerto Galera, Oriental Mindoro						Farming, fishing, and business and trade	Farming, fishing, and business and trade	Coral reefs and mangroves	None mentioned
Sablayan, Occidental Mindoro	273.40	33.0	101,234	42 (16)	2,500	Fishing, farming, poultry and cattle fattening, pottery making, and lambanog industry	Fishing, farming, poultry and cattle fattening, pottery making, and lambanog industry	Coral reefs and mangroves	Lack of funds
San Juan, Batangas						Fishing, nipa shingle making, farming, boat making, and fish vending	Fishing, nipa shingle making, farming, boat making, and fish vending	Coral reefs and mangroves	Lack of resources for law enforcement
San Miguel, Leyte	124.10	5.0	15,000	5 (5)?	191	Fishing, farming, tourism	Fishing, farming, cottage industry, and tourism	Coral reefs and mangroves	Lack of resources for law enforcement
San Vicente, Palawan	1,462.00	120.0	21,267	10 (10)	1,778	Fishing, aquaculture, farming, rubber plantation, and coconut plantation	Fishing, aquaculture, farming, rubber plantation, and coconut plantation	Coral reefs and mangroves	Attitude of community members and lack of financial resources
Slay, Zamboanga del Sur	330.76	13.3	(1997)	29 (6)	No data	Farming, fishing, trade and commerce, livestock production and marketing, and business retailing, wholesaling, and manufacturing	Farming, fishing, trade and commerce, livestock production and marketing, and business retailing, wholesaling, and manufacturing	Coral reefs and mangroves	None mentioned
Sibulan, Negros Oriental	163.00	8.8	29,303	15 (6)	364	Farming, fishing, and entrepreneurship, and transportation	Farming, fishing, and entrepreneurship, and transportation	Coral reefs	Illegal fishing techniques and practices, solid waste dumping, illegal construction of seawall, insufficient funds, inadequate knowledge in CRM planning, lack of funds
Tukuran, Zamboanga del Sur ¹	139.25	7.0	31,206 30,608	25 (8)	3,226	entrepreneurship, and transportation	entrepreneurship, and transportation	Coral reefs and mangroves	Illegal fishing and lack of community involvement

¹ Zamboanga del Sur was excluded from further evaluation on the grounds that it was one of the Search winners in 1998.

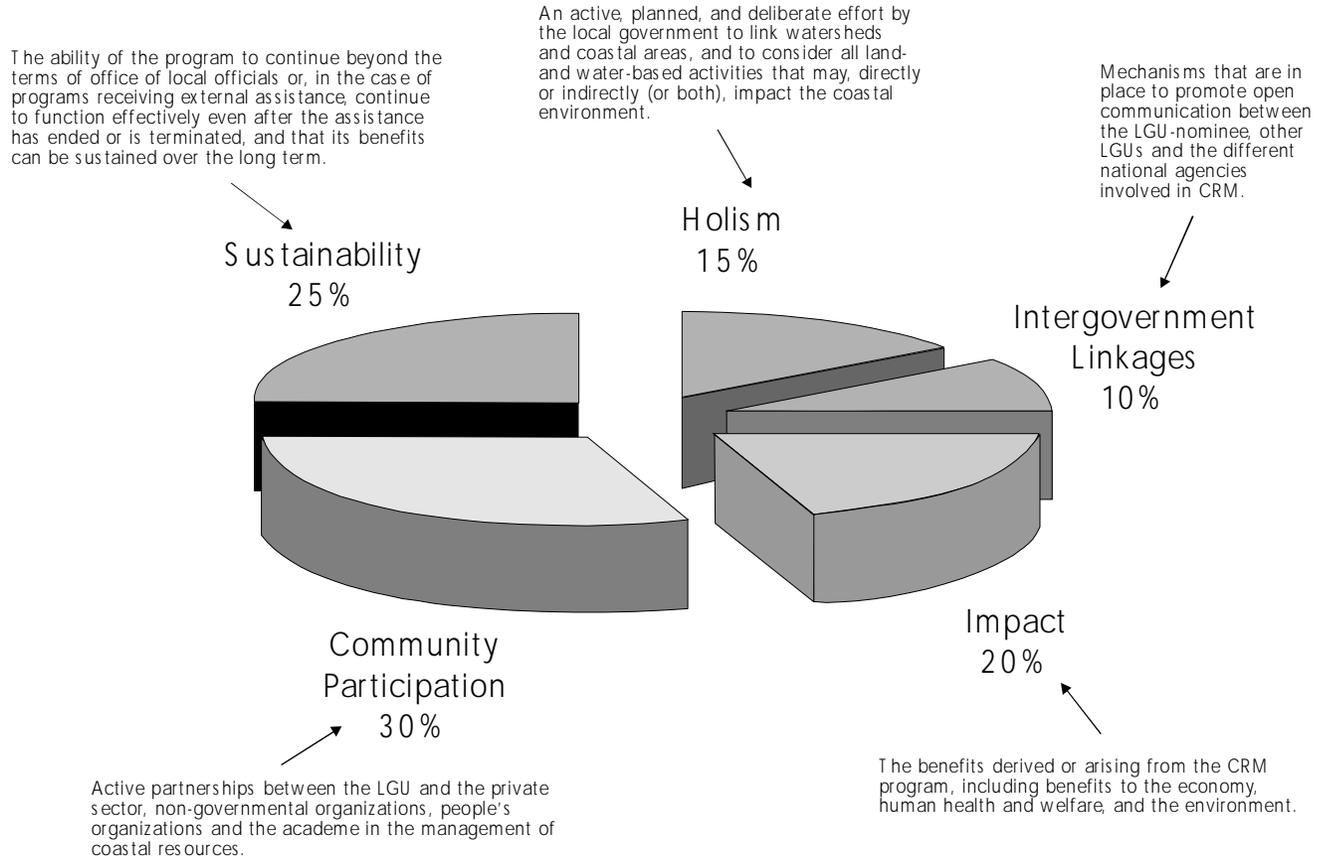


Figure 3. Criteria of the Search for Best CRM Programs.

IV. PROFILES

SIX MUNICIPALITIES WERE JUDGED AS WINNERS OF THE BEST COASTAL MANAGEMENT PROGRAM AWARDS FOR 1998 BY THE NSC

THE FOUR WINNERS THAT BELONG TO THE EXTERNALLY ASSISTED CATEGORY ARE THE FOLLOWING:

Altavas, Aklan

The municipality of Altavas has the shortest coastline among the three municipalities bordering Tinagong Dagat, but the municipality recognizes that it holds equal responsibility for resolving the problems in the bay and ensuring the sustainability of the bay's resources.

Altavas is located southeast of Kalibo, Aklan. Its coastal population of 8,274, which is 39% of its total population, lives along a 7.4-km coastline that borders Tinagong Dagat (Banga Bay).

Fishing and processing of marine products for food are the major economic activities of the coastal communities.

Coastal resource management in Altavas first came about when, in 1989, as a community, the townspeople acknowledged that the degradation of forest resources in their highland barangays had contributed directly to soil erosion and siltation in Tinagong Dagat.

In March 1993, Altavas became a member of the Central Panay Economic Unification (CPEU). Listed among the town's priority concerns is the rescue of Tinagong Dagat from problems besetting it. This gave birth to what would later be known to Altavas people as a CRM program dubbed "SAGIBIN SA DAGAT" Phase 1. The program lasted until April 1995 and was funded by the Canadian International Development Agency/Local Government Support Program (CIDA/LGSP). Through capability building and human development training in CRM, it instilled into the consciousness of Tinagong Dagat stakeholders the need for instituting CRM best practices. Altavas, along with the municipalities of Batan and New Washington formed a bay management council. The opposition





through a joint resolution by the council against a proposed building of a power barge in Tinagong Dagat was one of the accomplishments of the program.

Phase II of the SAGIBIN SA DAGAT CRM Program began in 1997 and was handled by

the University of the Philippines in the Visayas with funding from CIDA/LGSP. Through the SAGIBIN SA DAGAT Program and the active leadership of its leaders, the municipality of Altavas has developed the following conservation programs: 1) Rescue of the degraded forests and protected areas/biodiversity of Barangay Talon; 2) Revival/rescue of Kipot caves and watershed; 3) Integrated Social Forestry Project (ISFP); and 4) Cabugao Fisherfolks Mangrove Reforestation. Other projects include the Nestle Philippines-assisted Conversion of Senile Coconut Plantation Project. Fisherfolks and other stakeholders of Tinagong Dagat were also trained for alternative livelihood and cooperative establishment by the Marketing Investment Opportunities and Socio-economic Studies (MITOSIS) of UP Visayas.

As a result, the average annual income of fisherfolk households has increased from PhP8,000 five years ago to PhP18,000 at present. A 33% increase in fish catch was also observed from 30 kg/person/month in 1998 to 40 kg/person/month in 1999. The LGU has doubled its CRM budget to PhP100,000 with five CRM staff assisting the program.

Although the covenant among the three municipalities bordering Tinagong Dagat has suffered a setback because of differences in the setting of mesh net limits among fishers of the three municipalities, the Mayor of Altavas, with the support of the Sangguniang Bayan and the townsfolk, has stood firm in enforcing what the law requires in order to sustainably manage their resources. Through the passing of an ordinance stopping its development, the MFARMC and the SB have also actively opposed the development of a mangrove area that was undeveloped for 21 years by one of the FLA-holder families in the municipality. Their vigilance is their challenge to the national government agencies and the provincial government to support them in their drive to preserve Tinagong Dagat.

Calape, Bohol

The municipality of Calape in Bohol is a community of 26,896 people spread in 33 barangays, 18 of which are located along a 28-km stretch of coastline. Fishing ranks first as a major source of income for the town's 15,148 coastal residents. Thirty-five percent of them are engaged in fishing while 30% are in farming; some fishers also tend farms as a secondary source of income.

In 1993, the Calape LGU initiated a marine culture and conservation program for Calape Bay. This involved the enactment of pertinent ordinances and deputation of fish wardens in coordination with the DA-BFAR. The establishment of the Fishery Center of the DA-BFAR in two barangays paved the way for technical assistance, research, and fish stock assessment for Calape.

In 1995, the Coastal Resource Management Project (CRMP) of the DENR included Calape among its learning areas. NGOs like the Bohol Integrated Development Foundation (BIDEF) and International Marineline Alliance (IMA) assisted in organizing the fisherfolk communities. As a result, fish sanctuaries have been established by local ordinances through the initiative of barangay officials and the communities. Mangrove reforestation projects have also been implemented through individual stewardship agreements, community efforts, and inter-agency civic action.

In 1998, through the initiative of the Sangguniang Bayan, a Tripartite Management Council composed of various NGAs, NGOs, and POs was created to take care of planning, implementing, and managing the CRM program of the municipality.

In compliance with the Fisheries Code of 1998, the MFARMC was organized. The fish wardens were reoriented and deputized to assist in fishery law enforcement. Joint fishery law enforcement activities, which included sea-borne operations, were conducted along the common boundaries of neighboring coastal municipalities. Consultations are also ongoing between Calape and Cebu City for a joint and integrated Bantay Dagat operation within the municipal waters of Calape.

To date, the coastal management initiatives of the municipality have resulted in an upgrade of the coral reef areas from poor condition five years ago to fair. The mangrove areas have also improved to good from fair five years ago. In addition, fish stocks appear to have increased despite illegal fishing activities that still occur sporadically. In 1999, fish catch in the

municipality was recorded at 80 kg/person/month.

To totally eradicate illegal fishing, the municipality has hired fish wardens as casual employees and provided them with patrol boats, communication equipment, and logistics for sea-borne patrol operations. Regular information, education and communication (IEC) activities are being conducted in coastal barangays to support the law enforcement campaign.

LIPASECU in Antique



LIPASECU is an acronym that stands for the four coastal municipalities of Libertad, Pandan, Sebaste, and Culasi in the province of Antique. It is the management council formed by the four municipalities to sustainably manage the 68-km coastline cradling Pandan Bay. LIPASECU has a total of 53

coastal barangays and a coastal population of 57,798, which is 68.73% of its total population. The fisheries sector – marine fisheries, shell and fry gathering, seaweed farming, and fish vending – is thus an important source of income for the four adjacent municipalities.

In the last quarter of 1995, the Antique Integrated Area Development (ANIAD) Foundation, in partnership with the municipality of Culasi and PROCESS, an NGO in the area, implemented a pilot program on Community-Based Coastal Resource Management in the municipality. The focus of the program implementation is on raising the fishers' consciousness of the coastal and marine environmental situation and the problems and issues affecting them. In 1996, upon the request of the Pandan local government, the program was replicated in Pandan in partnership with the ANIAD, and then in the two other neighboring municipalities, Libertad and Sebaste, in 1997.

To facilitate easier coordination of the program implementation, a Technical Working Group on CRM was created composed of representatives from the four municipalities' local government unit, NGO, ANIAD, and fishers through their FARMCs. In the course of the program implementation, the TWG members realized that, because they were

sharing the same resource base, which is Pandan Bay, their municipalities faced common problems and issues. To address these issues, a series of inter-municipal consultations were conducted which resulted in the formation of the LIPASECU Bay-Wide Management Council. LIPASECU was formally created last October 3, 1997 after the four LGUs signed a Memorandum of Agreement on the Council's creation. It is headed by one of the municipal mayors and co-chaired by the other three mayors.

LIPASECU has one basic master plan for its CRM program, which has so far included the following projects for the four municipalities: reforestation, critical area protection, integrated pest management, sloping agricultural land technology (SALT), resource protection and regeneration such as mangrove development and marine sanctuary implementation, and



fishery law enforcement and sea patrol. Fish wardens have been trained and deputized to strengthen the municipality's law enforcement capabilities. Although not completely eradicated, overfishing and conflicting resource use and the use of destructive fishing methods have been reduced to some degree, resulting in an increase in fishing catch to an average of 186 kg a month per fisher in 1999. The range of the annual fisherfolk household income has also increased from PhP8,000-20,000 in 1994 to PhP14,000-27,400 in 1999.

To ensure the sustainability of the project, the four municipalities have allocated considerable amounts for CRM. Part of the money is given to LIPASECU for its operational expenses.

An important factor in the success of the LIPASECU is the support of the people for the Council and its activities. Fishers are actively helping authorities in enforcing laws and ordinances, and they are reaping the rewards of their perseverance, as exhibited by the abundance of fish observed in the nature-aquarium developed inside a marine sanctuary in the municipality of Libertad. Given the fisherfolks' vigilance in maintaining this sanctuary, there is hope that CRM in these four towns will be sustained through future generations.

Sibulan, Negros Oriental

Sibulan, bounding the northern border of Dumaguete City, is one of 19 coastal municipalities of Negros Oriental. It has 15 barangays, six of which are located along a coastline stretching to 8.8 km, where about 25% of the town's total population of 31,206 live (1995). Fishing and mariculture, aquaculture, bangus fry collection and marketing, and fish trading and vending are the major coastal economic activities in the municipality.

In 1997, Sibulan was selected along with some coastal municipalities of Negros Oriental as a learning area of CRMP. Among the primary outputs of the Project was the facilitation of the CRM process and conduct of participatory community resource assessments in all coastal barangays. The effort resulted in the development and production of resource maps, which has served as a basis for barangay CRM planning activities. Currently, CRMP, through its partner NGO, the Ting Matiao Foundation, is facilitating community organizing activities in coastal barangays in the municipality.

CRM projects – marine reserves, and solid waste management, for example – are now evident on the coast of Sibulan. The Sangguniang Bayan has formulated and enacted a number of ordinances to reinforce non-regulatory measures related to CRM. These include a fishery ordinance on the regulation of *saginisin* fishing in the municipality and an ordinance prohibiting the use of compressors and scuba tanks up to 1 km from the shoreline.

Aside from projects that directly impact the coastal environment, there are also projects geared toward rehabilitating and developing upland and lowland areas. In the uplands, these include agroforestry; in the lowlands, major projects involve community-based forest management agreements.

As a result of these projects, the average monthly catch of fishers has increased from 18.67 kg to 25.82 kg; monthly fishing household incomes are up from PhP1200 – 1400 to PhP2000 – 2,600. The hectareage of the coral cover has decreased from 1,228.50 five years ago to 921.38 at present, but the condition of the coral reefs improved from fair in 1995 to good in 1999.

Hopes for the continued success of management efforts in Sibulan lie in the fact that the municipality fully recognizes that it still has much

work to do to ensure the sustainability of its coastal resources. Although now limited, illegal and destructive fishing practices and techniques still exist and need to be eradicated. The Bantay Dagat needs to be strengthened so that it fosters vigilance among community members. Furthermore, the local government has plans of putting up a dive resort in the municipality – this can only be achieved if its coral reef resources are more than adequately protected.

THE TWO MUNICIPALITIES ADJUDGED AS WINNERS IN THE SECOND CATEGORY (NOT EXTERNALLY ASSISTED) ARE AS FOLLOWS:

Claveria, Cagayan

Claveria is the northernmost municipality in the mainland of Cagayan province. It has only 12 coastal barangays (out of a total of 41) and a coastline of only 27.7 km, but coastal residents, many of them dependent on fisheries for livelihood, make up more than 44% of the population (1995: 25,363).



For many years, Claveria was the biggest supplier of fresh marine fishes and other aquatic products in Northern Luzon. This was not sustained, however. Overfishing by foreign fishing vessels intruding into Claveria’s municipal waters, combined with traditional illegal fishing activities around the area, has severely depleted its fisheries.

In 1995, a Fishery and Aquatic Resources Development Program (FARDP) was initiated as a strategy to implement the town’s Executive Agenda. A Work Team composed of several sectors of the community was created through consultative meetings and barangay assemblies to implement the program. The program aimed to uplift the quality of life of the fisherfolks through improved fishery technology and community-based participatory activities in order to attain sustainability and productivity without destroying the ecological integrity of nature.

The following strategies and activities were implemented: 1) close coordination with fishery enforcement agencies like the Philippine National Police and Philippine Coast Guard and fish wardens; 2) enactment of necessary



municipal ordinances; 3) organization of BFARMCs and MFARMC; 4) establishment of community-based forest management areas; 5) enactment of a solid waste management code; 6) provision of livelihood options to coastal communities; 7) seaweed planting; 8) tie-up with lending institutions for financial assistance to fisher groups; and 9) cleaning and

greening of the shoreline.

The LGU, in coordination with national government agencies like BFAR, Department of Trade and Industry, and the Department of Social Welfare and Development conducted different skills development training for the fishing communities, and has regulated the use of mangrove areas. Consequently, the fishing communities have begun to experience increased fish catch.

There is a long way to go before real abundance comes back in Claveria, but with the leadership of its LGU, the collaborative agenda the municipality has established with national government agencies, NGOs, and people's organizations, and the attentiveness given by the community to the preservation of the environment, the waiting may be not that long for Claveria.

Palompon, Leyte

Palompon is one of 27 coastal municipalities of the province of Leyte. Located 124 km west of Tacloban City, the municipality has a land area of 128.46 sq km encompassing 50 barangays and a total population of 50,319. Twenty-six coastal barangays comprise its 36-km coastline bordering Camotes Sea, where almost 56% of the population lives. The major economic activities in the coastal areas include fishing, sea cucumber/seaweed gathering, siganid (*danggit*) processing, mat weaving, shell gathering and shellcraft industry, and fishpond culture.

The town's experience in CRM dates back to 1995. It came about as a result of the depletion of catch for several fish species due to unregulated harvest, the use of destructive fishing methods such as poison fishing (*'tubli'*, *Derris philippinensis*), mangrove cutting, upland forest destruction, and beach sand/gravel mining, among others. The problem caught the attention of the LGU officials, prompting them to conduct a series of multi-sectoral

consultations with fisherfolks, consumers, professionals, lay leaders, NGOs, people's organizations, national government agencies, and other sectors of the community. This led to the conceptualization of a holistic program called EASD or Ecological Amelioration for Sustainable Development. EASD has two components: legislation/enforcement and livelihood support.

Since then, several CRM legislations have been passed. These include 1) the declaration of Tabuk Island as a fish and bird sanctuary; 2) the total ban on the catching of *danggit* (siganid) during spawning seasons; 3) the total ban on coral extraction; 4) the regulation of the use of superlights and other destructive fishing methods; and 5) the establishment of a 24-hr patrol against illegal fishing and other violations of environmental laws. These efforts have resulted in increased fish catch per fisher (5.5 kg/fisher/day), reduction of illegal fishing, and increased bidding price for fish corrals. The municipality's revenue from fish corrals ballooned from PhP27,675.95 in 1995 to PhP74,754.75 in 1997. Fishing households also increased their average annual income from PhP30,000.00 in 1995 to PhP80,000 in 1999, 273% higher than the average annual income of all the households in the municipality.

In order to sustain the CRM program of the municipality, the LGU has steadily increased the budget allotted for environment over the years. For the year 2000, the municipality has set aside a considerable amount for its environmental budget and employed 12 CRM staff. CRM training/workshops/seminars have also been held and are being planned for the LGU leadership and personnel, the youth, fisherfolk, and other citizens. The municipality has also received assistance from the national government and the private sector.

The persistence of the local government and volunteer groups from the private sector and the realization by the community of the benefits they get from the program has raised public morale and increased vigilance. Despite their initial resistance to the program, most Palomponganons now appear determined to return their municipality to its original state of splendor and productivity in the very near future.

Basey, Samar

- ◆ Fisheries Resource Management Program site
- ◆ Fish sanctuaries established in Panunubolon Is
- ◆ Excellent mangrove cover
- ◆ Sufficiently-funded CRM program manned by 8 CRM staff
- ◆ Environmentally-friendly enterprises include mat weaving and embroidery



Cortes, Surigao del Sur

- ◆ Fish sanctuary established in two coastal barangays
- ◆ Mangrove reforestation
- ◆ Mariculture is an important enterprise
- ◆ Fisher organizations like the Nagpakabanang Mananagat sa Tigao (Concerned Fishers of Tigao) or NAMATI very active



Lawaan, Eastern Samar

- ◆ Mangrove rehabilitation and reforestation
- ◆ Marine sanctuary established in four barangays
- ◆ MFARMC and Fish Warden Association active
- ◆ Lawaan Coastal Zone Management Council formed in 1994

Maragondon, Cavite

- ◆ Community organizing (by PRRM) since 1996
- ◆ Conservation programs include coastal organizing and leadership building, marine sanctuary establishment, and mangrove rehabilitation and reforestation

Prieto Diaz, Sorsogon

- ◆ Previous winner of Search for Best CRM Program in 1998
- ◆ Conservation projects include the MARILAG Marine Reserve, mangrove reforestation, and alternative livelihood projects such as goat fattening and raising, oyster culture, crab culture and fattening, and seaweed culture.
- ◆ CRM effort is multisectoral through the help of national government agencies, NGOs such as the Tambuyog Development Center, and people's organizations such as SEAMANCOR Eco-developers Association



Puerto Galera, Oriental Mindoro

- ◆ Puerto Galera Bay is a marine reserve by MAB and UNESCO
- ◆ Tourism is a main and thriving enterprise
- ◆ Mangrove rehabilitation
- ◆ Watershed rehabilitation and management Artificial reef established

San Juan, Batangas

- ◆ Dynamite, poison, and electric fishing banned since 1995
- ◆ Marine sanctuaries established in six coastal barangays
- ◆ Mangrove area being managed in Barangay Pulangbato most successful in Batangas province



San Miguel, Leyte

- ◆ Mangrove rehabilitation and reforestation
- ◆ Shoreline water control
- ◆ Marine fish sanctuary in one barangay

San Vicente, Palawan

- ◆ CRMP Learning Area
- ◆ Marine sanctuaries are established in two barangays
- ◆ Environmentally friendly enterprises include seaweed farming and sardines-making
- ◆ Operation of compressor banned since 1995

Siay, Zamboanga del Sur

- ◆ Municipal ordinances include registration of fisherfolks and fishing gears, ban on poaching in the municipal waters, and ban on catching gravid crabs
- ◆ Mangrove rehabilitation and reforestation

Sablayan, Occidental Mindoro

- ◆ Municipal conservation programs include forest conservation, coastal marine life conservation, watershed management, forest park tree planting, and rivers and lake development
- ◆ Municipal ordinances supporting establishment of the Sablayan Marine Sanctuary, regulating catch within inland bodies of water, and adopting RA 8550, among others, are in place
- ◆ Active Bantay Dagat

Tukuran, Zamboanga del Sur

- ◆ Member of the Illana Bay Inter-Municipal Management Council
- ◆ Marine sanctuaries in two barangays
- ◆ MFARMC and Bantay Dagat organized

V. CRM SELF-HELP GUIDE

The search will be repeated every two years with the next call for nominees scheduled for January of the year 2000. This is a self-help guide for coastal municipalities who wish to assess what stage they are in implementing CRM. The questions and parameters provided per stage are based on the criteria used to evaluate nominees for this Search and can serve to prepare you for the next Search. The stages outlined here correspond to 5 stages of CRM development:

Stage 0 - There is no program in the coast area nor in the watershed area. Know the status and value of your resources using the simple assessment guide.

Stage 1 - There are several projects relating to CRM. This might include marine sanctuaries, and mangrove reforestation; however, these were planned independently.

Stage 2 - Physical planning and institutional infrastructure for CRM is established.

Stage 3 - Interventions acquire a holistic and integrated perspective with monitoring.

Stage 4 - Planning cycle is complete and working!

CRM IS NOT ONLY FOR MUNICIPALITIES FACING THREATS OF COASTAL HABITAT DESTRUCTION AND FISHERIES OVEREXPLOITATION! CRM IS ALSO FOR MUNICIPALITIES WHO CHOOSE NOT TO DEGENERATE INTO SUCH CONDITIONS... LEARN FROM OTHERS' MISTAKES. MANAGE YOUR RESOURCES! PLAN FOR ACTION!

Know what stage your municipality is in and plan to achieve the highest stage!

Stage 0: No CRM program — the assessment phase

- I. What is the status of our coastal resources?
 - A. *Look at the trends — is fish catch much lower now than it was 5 years ago, 10 years ago? Are we catching less-valued species? Is there large-scale conversion of mangroves? Are the coral reefs healthy? Are there illegal activities that continue to destroy critical habitats?*
 - B. *Look at the major threats — is the coastal population increasing?*

Are the number of fishers increasing? Is development, e.g. housing and industry, pushing towards the coast? Is there a mushrooming of tourist facilities? What's happening in the uplands? Mining, continued forest degradation activities? What's happening in the lowlands? Is agriculture dependent on chemical fertilizers?

- II. Are the coastal communities directly dependent on the use of coastal resources?
 - A. *Yes? Then, CRM becomes imperative to ensure their livelihood!*
- III. How much economic value do communities gain from use of coastal resources?
 - A. *Estimate value of fish catch especially those of coral-dwelling species, mangrove crabs and shells, poles and other wood products. How many tourists visit? How much do they spend? How much do boat owners charge for dive trips? Again, look at the trends!*
- IV. What happens when these resources are destroyed?
 - A. *For coral reefs: loss of aesthetic value, loss of habitat of fish, loss of protection against waves---LOSS OF INCOME, LIVES and PROPERTY!*
 - B. *For mangroves: loss of habitat for fish and shrimp juveniles, crabs, loss of source of wood products, medicines, loss of silt aggregation function, loss of buffer against storms---LOSS OF INCOME, LIVES and PROPERTY!*
 - C. *For fisheries: loss of food and the most economical source of dietary protein---LOSS OF INCOME AND LIVES!*

Stage 1 – Fragmented projects along the coast

- I. Are there conservation/protection projects (marine sanctuaries, mangrove reforestation etc.) in our municipality?
- II. Are they funded by donor agencies or NGOs?
- III. Is some form of support provided by local leadership, e.g. in the maintenance of these facilities? Enforcement of local ordinances?
- IV. Does the community and local government have a role in the establishment and maintenance of these facilities?

Stage 2 - Physical planning and institutional infrastructure for CRM is established

- I. Is planning adhered to? (For a step-by-step guide to CRM Planning, move on to next section!)
- II. Does our municipality have an organizational structure that balances

- development and protection of our coastal resources?
- III. Are the scope of action and responsibility of each functional department in our municipality clearly defined?
 - IV. Is the access to and control over the coastal resources of our locality by the different local departments and/or community sectors carefully planned, monitored and regulated as needed?
 - V. Are peoples' organizations established, recognized and participating in planning?
 - VI. Do laws, regulations and policies on managing these projects exist in our municipality? Are they consistently applied?
 - VII. Is a desk/telephone hotline in place to respond to stakeholders' concerns and complaints on issues regarding our coastal projects? Are simple (easy-to-follow) procedures in the processing of complaints, suggestions and requests for assistance from the public being used?
 - VIII. Is there a continuing training program for members of people's organizations in our municipality on managing our projects/ resources?
 - IX. Are team-based and participatory processes being used in the planning and implementation of coastal activities in our municipality?

Stage 3 - Interventions acquire a holistic and integrated perspective with monitoring

- I. Do we have to develop projects in our watershed areas? What are these projects?
- II. Are there inter-LGU endeavors in place between my municipality and the other municipalities in our area? What is the extent (number) of our inter-LGU networks?
- III. Are there ordinances institutionalizing CRM principles in our municipality?
- IV. Are there effective channels of communication between the government and the public (fora, community bulletins, etc.)?
- V. Do we have mechanisms installed to evaluate the impact of development projects and other activities on different ecosystems?
- VI. Are there mechanisms that promote open communication and collaboration with other LGUs and the different national agencies (MOAs, MOUs, regular forums, etc.)?
- VII. Are there joint venture arrangements existing between the

government and the private sector to support our projects in our coastal areas?

- VIII. Do we have a land use plan? Does the land use plan address the need to maintain ecological balance in place in our municipality?
- IX. Do we have a CRM plan? Does our CRM plan link watersheds and coastal areas?
- X. Is there a monitoring evaluation plan for CRM activities?
- XI. Do we routinely monitor activities in coastal areas?

Stage 4 - Planning cycle is complete and working

- I. Is there a continuing capacity-building program to strengthen government-non-government relationships?
- II. Are there adequate monitoring and feedback systems in our municipality which really work?
- III. Does a “unified development plan” exist in our municipality? Does it incorporate CRM principles that are endorsed/approved by all government sectors, including the politicians, local government staff, and representatives of national government agencies?
- IV. Are there joint venture arrangements existing between the government and the private sector to support CRM initiatives?
- V. Do we have investment support for our CRM programs?
- VI. Do we practice values-oriented information campaign (using local media and other channels) that incorporates CRM principles?
- VII. Does our leadership program incorporate CRM principles?
CRM includes many activities – often complex ones – that are carefully arranged in plans. A plan can arrange actions to solve very specific problems such as the degradation of a small mangrove forest, or may organize all the required actions to manage the coastal resources in one or more municipalities covering 100 kilometers or more of coastline.

Regardless of the size, scope and complexity of a plan, there is a planning process and certain basic ingredients. Various programs in the Philippines and abroad have, through experience, helped us determine what is essential in the CRM process to achieve results in both the short and long term.

The basic planning and implementation cycle is composed of eight phases. We enumerated questions through each of these phases which could guide municipalities in planning their CRM program and/or checked on the extent of their ongoing CRM program through CRM interventions.*

Phase 1: Program preparation

*Have we ... determined the boundaries and scope of the program?
... made work plans / budgets?
... assigned personnel for the program?
... secured consensus on overall approach?*

Phase 2: Secondary information gathering

*Have we ... compiled existing maps, reports, data, etc?
... interviewed information sources?
... compiled existing laws, agreements, plans, etc?
... reviewed other sources of information?*

Phase 3: Field assessment/study: Participatory Coastal Resource Assessment (PCRA) and other research

*Have we ... trained practitioners?
... conducted PCRA mapping and data collection?
... contracted special research studies on fish stock assessment, habitat condition, water quality, enterprise and others?*

Phase 4: Database and profile development

*Have we ... set up data storage and retrieval system?
... compiled coastal environmental profiles?
... used profiles as planning base?
... refined boundaries and further research needs?*

Phase 5: Prioritize issues and analyze causes

*Have we ... conducted community and municipal-based planning sessions?
... prioritized issues for management?
... determined causes of issues?*

Phase 6: Policy and plan formulation

*Have we ... conducted planning workshops to determine objectives, strategies, and actions?
... determined clearly stated goals, objectives, and indicators?
... established a mechanism for interagency coordination?
... determined the composition of the management council?
... initiated preliminary plan implementation and CRM*

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