

Provincial and Regional Institutions in the Philippines: An Essential Element in Coastal Resource Management and Marine Conservation

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A Background Paper for the Workshop on
**Institutional Frameworks for Community Based-Coastal Resources Management and
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I. Introduction

A. Historical background and perspective

The Philippines has more than two decades of experience in coastal resources management (CRM) and marine conservation, particularly in community-based initiatives, from which other countries in the region are drawing. However, a reservoir of lessons learned have not as yet been applied and translated significantly into improved environmental status nor to an uplifted socio-economic status of poor coastal communities. It has been reported that only 19% of community-based coastal resources management programs and projects implemented between 1984 and 1994 were successful (Pomeroy and Carlos 1997). These findings lead to the question of what is causing this low rate of success. Is there a need for a shift in the CRM model being followed? Or should these projects and programs simply need more time to mature and produce tangible results?

A project implemented by the University of Rhode Island Coastal Resources Center looked at the contextual and intervention factors that affect the success of community-based marine protected areas (MPAs) in the Philippines which are a common or oftentimes the major intervention of coastal management programs. Six factors were identified to be the most important of those involved in the overall success of community-based marine protected areas, among which are successful alternative income projects, continuing advice from the implementing organization, and inputs from the municipal government (Pollnac and Crawford 2000). These factors could be influenced by other variables, including the presence of institutional mechanisms that can direct resources from higher levels of government that have the capability to generate substantial financial and technical resources, to support local level interventions.

The situation prompts another look at the current institutional framework to determine areas that could be strengthened to improve CRM implementation in the country. Recent initiatives by the Coastal Resource Management Project (CRMP) in developing local-level learning areas led to experiments in provincial-level coastal resources management in three provinces, picking up from the Negros Oriental example. The initial successes in these provinces point to the necessity of a paradigm shift incorporating a facilitation-coordination-replication role of provinces that will require adding personnel to the current bureaucratic framework but may prove to be a significant link in strengthening municipalities and cities in carrying out their devolved functions in CRM.

B. Purpose and Scope of the Paper

This paper aims to provide background information that will serve as a departure point of discussion for the workshop to be held at the Leyte State University (LSU), Baybay, Leyte, Philippines on March 14-15, 2002. The workshop will be addressing the following objectives:

1. Review the current situation in Region 8 (Eastern Visayas) concerning CRM and marine conservation activities, projects and programs.
2. Discuss an emerging institutional CRM framework at the provincial level and the need for such a framework at the provincial and regional level to support community-based coastal resources management (CB-CRM) and marine conservation at the local level.
3. Identify institutional development needs and make recommendations concerning how to build institutional capacity in the region to support CB-CRM and marine conservation.

Succeeding sections of this paper cover a brief overview of current institutional context at all levels of coastal management and governance along with the legislative framework (part II); local level coastal resource management focusing on municipal and provincial levels (part III); the roles of non-government organizations (NGOs), academic and other research and extension institutions, and externally-funded resource management programs (part IV); and the needs, prospects, and opportunities for replication of CRM implementation at the provincial level, including specific opportunities in Eastern Visayas (part V). The final section (part VI) deals with concluding statements, some recommendations, and suggested questions for the workshop.

II. Brief overview of the current institutional and legal context at all levels of government

A. Major legislative framework

There are six (6) pieces of legislation that collectively form the major basis for coastal and marine resource management in the Philippines: (1) the 1987 Philippine Constitution; (2) the Fisheries Decree of 1975 (Presidential Decree (PD) 704), (3) the Philippine Environmental Code (PD 1151 and 1152); (4) the Local Government Code of the Philippines (RA 7160); (5) the National Integrated Protected Areas System (NIPAS) Act of 1991 (RA 7586); and (6) the Philippine Fisheries Code of 1998 (RA 8550).

The 1987 Constitution of the Philippines provides the basic legal framework for the protection and preservation of the country's marine wealth with the ultimate control and ownership of its natural resources in its archipelagic waters, territorial sea and exclusive economic zone. The revised Constitution provides explicit recognition of the need for CRM, linking its application to optimum productivity, sustainability, and equity through democratic processes and distributive justice (Valle et al. 2000). It also recognizes the obligation of the State to "protect, develop and conserve marine resources (Article XII, Section 7) and to "protect the rights of subsistence

fishermen, especially local communities" (Article II, Section 22). The revised Constitution encourages "non-governmental community-based or sectoral organizations to promote the welfare of the country" (Article II, Section 23).

The Fisheries Decree of 1975 (PD 704) revised and consolidated all laws and decrees pertaining fishing and fisheries aimed at accelerating and promoting the integrated development of the fishery industry and to keep the fishery resources of the country in optimum productive condition through proper conservation and protection. It encouraged and promoted the export of fish and fishery/aquatic products to enable the fishery industry to contribute positively to the development and growth of the national economy. PD 704 granted the Bureau of Fisheries and Aquatic Resources (BFAR) the jurisdiction and responsibility over the management, conservation, development, protection and disposition of all fishery and aquatic resources of the country except municipal waters which is under the municipal and city governments excluding fishpens and seaweed culture in municipal waters. PD 704 also provided BFAR the authority to regulate and supervise the production, gathering, utilization and disposition of fishery and aquatic resources.

In 1991, the Philippines passed a major piece of national legislation called the Local Government Code (Republic Act No. 7160). This legislation, which took effect in January 1992, began a new era in local development and people's empowerment and paved the way in attaining local autonomy and self-reliance of local communities. The passage of the Code effected a structural power shift that placed coastal local governments and cities at the forefront of sustainable resource management (DENR et al. 1997). It provided for the devolution or decentralization of authority from national agencies to provincial and municipal governments, including coastal and marine resources management. Municipalities in particular benefited from this Code because their municipal waters were expanded from 7 km to 15 km from the shoreline. The Local Government Code also provided for the optional creation of a position of an Environment and Natural Resources Officer (ENRO) in all municipalities, cities and provinces (Section 484).

The National Integrated Protected Areas System (NIPAS) Law of 1992 mandated the Department of Environment and Natural Resources to implement a program for the protection, conservation, and management of natural habitats including marine ecosystems and their biodiversity in protected areas in the Philippines. Under NIPAS, large marine protected areas were established though there are also a few small areas that were designated. Management strategies under the NIPAS program included those that target institutional strengthening and community participation and organization. In cases where the protected areas are located within municipal waters, the local government has representation in the Protected Area Management Board (PAMB).

The Philippine Fisheries Code of 1998 (RA 8550) is an Act providing for the development, management, and conservation of fisheries and aquatic resources. The Code integrates all laws

relevant to fisheries and recognizes the principles of ensuring rational and sustainable development, management and conservation of fisheries and aquatic resources consistent with the primary objectives of maintaining a sound ecological balance, protecting and enhancing the quality of the environment. For example, the Fisheries Code requires that at least 15% of municipal waters be set aside as marine protected areas. The Code specifies the application of integrated coastal area management and targets the provision of a sound policy and institutional framework for fisheries resources management and its long-term sustainability.

B. National Level

Traditionally, coastal and marine resources management in the Philippines came under the jurisdiction of two national agencies, the Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and the Department of Environment and Natural Resources (DENR). However, the government has increased the number of agencies/institutions involved in an effort to rationalize the structure of existing government institutions, and to strengthen its efforts in addressing the various issues and concerns of the country's coastal and marine resources.

At present, there are six government departments that have shared as well as unique responsibilities over the wise use and conservation of coastal and marine resources (see Annex 1 for a summary of responsibilities), namely: (1) Agriculture through its Bureau of Fisheries and Aquatic Resources; (2) Environment and Natural Resources, (3) Interior and Local Government through its Philippine National Police - Maritime Group; (4) Transportation and Communications through its Philippine Ports Authority (PPA), Maritime Industry Authority (MARINA) and the Philippine Coast Guard (PCG); (5) National Defense through the Philippine Navy; and (6) Science and Technology through the Philippine Council for Aquatic and Marine Research and Development (PCAMRD).

BFAR and DENR both provide policy directions on the implementation of coastal resources management in the country. Together with PCAMRD, they both share a number of other major responsibilities including providing technical assistance, training and extension services, and assistance to local government units such as in establishing marine sanctuaries.

BFAR is the principal agency concerned with fishery resources management and the lead executing agency in providing policy reforms/directions related to sustainable use of fishery resources. It has sole responsibility in assisting local governments in enforcing Fisheries Administrative Orders and regulating fisheries outside of municipal jurisdiction. BFAR also continues to provide technical assistance/services to LGUs in support of their CRM program implementation (e.g., in the development of CRM plans, organization of FARMCs, training and extension, and establishment of fish sanctuaries).

DENR has a mandate for the full exploration and development as well as the wise use, management, renewal and conservation of the country's forests, minerals, lands, water, fisheries,

wildlife and other natural resources. DENR is responsible for the enforcement of rules, regulations, and guidelines on the issuance of licenses, permits, concessions, lease agreements and other privileges concerning the development, exploration, and use of marine, freshwater and brackishwater resources of the country. It is not, however, involved in fisheries regulatory, licensing, research and enforcement functions that are presently being exercised by BFAR.

In its implementation of the NIPAS, DENR through Department Administrative Order 19 series of 1993, launched the Coastal Environment Program (CEP) which aims to uplift the socioeconomic condition of the country's coastal populations through the protection of the environment and the implementation of strategic interventions. These interventions include resource assessments, community organizing, information and education campaigns, and identification and establishment of impact sites and seascapes. The implementation of CEP is being strengthened through the creation of Coastal and Marine Management Offices in all regional offices of DENR as provided for in a recent Department Administrative Order.

The DILG, through its various bureaus and offices, is responsible for planning, implementing, monitoring, and evaluating plans, programs, and policies pertaining to local autonomy, decentralization, and local governance, as well as perform police functions through the PNP - Maritime Group over Philippine territorial waters and rivers, and coastal areas from the shoreline to one mile inland. It is the agency primarily responsible in assisting the local government units with their new functions as a result of decentralization, including coastal resources management.

The DOTC through the MARINA sets policy directions in the development of the maritime industry and supervises the development and management of public ports. DOTC also regulates the development of private ports through the PPA. The Philippine Coast Guard (PCG), previously under the Department of National Defense now under DOTC, is involved in the registration and inspection of commercial fishing boats. Both MARINA and PPA rely on the PCG to enforce regulations and ensure compliance with maritime safety requirements. The Philippine Navy under the Department of National Defense promotes safety at sea and maritime security, and protects marine resources and the marine environment as an armed force. It also assists in the implementation of laws in the high seas and waters under Philippine jurisdiction, including those pertaining to the prevention, mitigation, and control of marine pollution.

PCAMRD monitors aquatic and marine research and development projects and formulates strategies, policies, plans, programs, and projects for aquatic and marine science technology. Additionally, it generates external funds and provides research and development directions for fisheries and aquatic resources.

There are other national agencies involved in coastal resources management including the Department of Tourism (through implementation of its National Tourism Masterplan); the Department of Finance through its Community-based Resource Management Project; and the

National Economic and Development Authority through incorporation of regional CRM plans within regional development plans.

B. Regional level

The DA-BFAR, DENR, DILG, and DOTC, have regional and provincial offices through which they conduct their field operations. BFAR operates in the regions through regional offices and has fully devolved functions at the provincial and municipal levels. DENR has provincial and community offices in addition to their regional offices but its functions are not fully devolved to the local government units. PCAMRD operates through the National Aquatic Resources Research and Development System (NARRDS) network of research and development institutions, state colleges and universities, and regional research stations of DA and DENR.

The generalized functions of government agencies at the regional level include: policy making at the regional level; providing technical assistance to provincial and municipal governments; and accessing funds and other resources for local level project implementation.

C. Local levels (provincial, towns and cities, and barangays)

The Local Government Code (LGC) provided local-level control over coastal waters through a definition of municipal waters and establishment of jurisdictional entitlements to province, municipality and city, and barangay (village). The province is responsible for settling disputes over the boundaries of municipal waters and has oversight functions of the governor and provincial council. The municipality has jurisdiction over: a) municipal waters of up to 15 km from the coastline; b) general powers provided in the LGC (e.g., legislation and ordinance-making); and c) specific fisheries and marine resource provisions (e.g., has exclusive authority to grant fishery privileges in the municipal waters and impose rentals, fees or charges). The barangay is the basic political unit and serves as the primary planning and implementation unit of government policies. This level provides a forum for amicable dispute resolution with the Barangay Captain and barangay council having enforcement and legislative functions, respectively.

In addition to providing ample fishing grounds to small-scale fishermen, the establishment of municipal waters was also intended to protect sustenance fishers from being disadvantaged by large-scale fishing operators and the long-term impacts of their operations. The municipal waters were designed for the exclusive use of municipal or small-scale fishers defined as those that use small fishing craft not larger than three gross tons. The Philippine Fisheries Code of 1998 (RA 8550) mandates the Local Government Units (LGUs) to establish Municipal Fisheries and Aquatic Resources Councils (MFARMCs). The MFARMCs serve as advisory bodies to LGUs in a) determining priorities in municipal fishing activities; b) assisting LGUs in formulating mechanisms in the wise use of municipal waters; c) determining license fees, closed seasons, and fish sanctuaries; and d) enactment of appropriate ordinances. Furthermore, the Fisheries Code requires that at least 15% of municipal waters be set aside as marine protected areas.

The Fisheries Code strengthened the legal basis for coastal resources management and encouraged the local community and NGOs to participate in its implementation. However, this mandate is weakened by the Code's provision that municipal waters exclude areas protected under the NIPAS. This provision thus complicates the jurisdiction and responsibility for coastal resources management.

It is unfortunate that most local government units in the Philippines do not know the actual extent of their legal jurisdiction because maps delineating the outer boundaries of municipal waters are not available. Maps showing municipal boundaries are critical in helping local governments manage coastal resources for sustainable use. As provided by the Fisheries Code, the delineation and mapping of municipal water boundaries is now taking place with the National Mapping and Resources Information Authority (NAMRIA) of the DENR assisting LGUs using guidelines outlined in the DENR Administrative Order No. 17 (DAO 17).

D. Institutional overlaps and conflicts

As evident in the functions of the major government organizations responsible for coastal management, there are institutional overlaps and conflicts that extend to other government agencies involved as shown in Table 1. Because of multiplicity of needs in coastal management, these agencies managed to carry out their activities without too much conflict albeit with suboptimal efficiency. However, policy formulation concerning the management of mangrove areas, a function that is shared by DA-BFAR and DENR, has been problematic and has become complicated with the entry of local governments and the municipal fishery councils in the fray. DA-BFAR issues leasing permits for mangrove areas to be developed into fishponds while DENR issues permits for forest lease agreements.

Table 1. Institutional overlaps and conflicts in functions among major government agencies involved in coastal resource management. (Data source: DENR et al. 1997).

Function	Agency
Policy formulation	LGU, FARMC, NGA, DENR
Resource assessments:	
Coastal	DA-BFAR, DENR, PCAMRD
Marine	DA-BFAR, DENR, PCAMRD
Statistics gathering and compilation:	
Fisheries	DA-BAS
Mangroves	DENR
Fishponds	DA-BFAR

Establishment of protected areas	LGU, DA-BFAR, DENR, Congress
Mangrove reforestation	LGU, DENR
Fishery licensing: municipal waters offshore waters	LGU DA-BFAR
Fishery law enforcement	LGU-PNP, PCG, DA-BFAR, deputies
Pollution law enforcement	LGU, PCG, DENR
Land use management	LGU, DENR
Tourism management	LGU, DOT
Reclamation	DENR (LMB and EMB), PEA
Pollution monitoring, including marine waters	LGU, DENR-EMB, PCG
Establishment of municipal/fishing ports	PFDA, PPA, LGU
Research	DA-BFAR, DA-BAR, DOST-PCAMRD, SCUS

The Local Government Code has added to the overlaps and conflicts in responsibilities between levels of government. These include overlaps in the areas of conservation or revenue generation, and levying of taxes, fees and charges, between province and subsidiary municipality although the province has override powers. There is also incomplete devolution of certain powers leading to issues on seaweed farms and closed seasons and a lack of explicit general policy statement on the management of municipal waters. Regarding the latter, the Local Government Code repealed PD 704 but the Local Government Code did not provide a substitute policy objective (Abregana et al. 1996).

In view of these overlaps, a nested system of governance infused with checks and balances at various levels with varying scales of support and responsibilities seems to be an alternative institutional mechanism for the country. Such a system should be considered especially in the current efforts to develop legislation for a national CRM policy.

III. CRM implementation at the local levels

A. Municipal-level Coastal Resources Management

Municipal-level CRM initiatives started with marine research and conservation projects, particularly the establishment of marine sanctuaries that were facilitated by Silliman University in Sumilon, Apo Island, and other municipalities in Central Visayas; the Central Visayas Regional Project in various municipalities in four Central Visayas provinces; and PCAMRD in Eastern Samar, Cebu, Quezon, Palawan and Ilocos Norte. CRM planning and implementation at the municipal level became a priority with the passing of the Local Government Code, with more academic institutions, NGOs, and government agencies targeting municipalities in their CRM initiatives. These include the Fisheries Sector Program of DA-BFAR and its second phase (Fisheries Resource Management Project), the Coastal Environment Program of DENR, the USAID-funded Coastal Resource Management Program, and the Community-based Resource Management Program of the Department of Finance. The CRMP established CRM learning areas in several municipalities, demonstrating CRM planning and implementation at the municipal level for other municipalities to replicate. The Department of Finance program directly grants funding to municipalities for use in natural resources management planning and implementation.

Replication of CRM in other municipalities is facilitated by the practice of cross-visits, as well as by the adoption of CRM by the League of Municipalities in the Philippines as an approach to environmental management. In recent years, the successes of a number of municipalities in CRM are highlighted each year by a competition for the Best CRM Award sponsored by DENR and CRMP. The CRM Certification Program of DENR* has started to encourage coastal municipalities to vigorously pursue CRM program planning and implementation with the awarding of CRM Level 1 certification to two municipalities (Inabanga, Bohol and Hagonoy, Davao del Sur) with the following accomplishments:

1. Multi-year CRM plan drafted;
2. Municipal fisheries and aquatic resources council formed and active;
3. Baseline assessment conducted;
4. Annual CRM budget allocated;
5. Shoreline management planned; and
6. Planned CRM interventions initiated (Anonymous 2002).

* This certification program is patterned after international standards for organizational and environmental management systems (ISO 9000 and ISO 14000). It is a voluntary process in which an independent third party provides a written certificate showing that a product, method or service satisfies certain predetermined requirements or criteria. Among the benefits of certification is the provision of a framework for prioritizing investments of local and national government and foreign donors to CRM-certified municipalities and cities (Courtney et al. 2001).

The institutional structure in municipal-level CRM commonly follows a co-management framework where authority is shared among the local governments (mainly the municipal government and barangay levels) and the community represented by peoples' organizations in the planning and implementation of coastal resource management.

Technical assistance and/or funding are extended to municipalities by the above-mentioned programs through academic institutions, GOs and NGOs who have expertise in CRM. Because these institutions are unable to meet the present demand for such services, there is a pressing need to rationalize capability-building efforts in CRM in the country. There is an ongoing collaborative program among the International Center for Living Aquatic Resources Management, International Institute of Rural Reconstruction, PCAMRD, Haribon Foundation, DENR and DA-BFAR on training local government officials in ICM. This program trains trainers that can pass on the same training to local government officials. Training provincial ICM trainers in this program may be another strategy.

B. Emerging models for provincial-level CRM

Provinces, along with municipalities and cities, are mandated by the Local Government Code to carry out program planning and implementation, legislation and enforcement, taxation and revenue generation, monitoring and evaluation, capability-building, and inter-agency and inter-LGU collaboration for the protection of coastal and marine resources (Yambao et al. 2001). The Code, which established jurisdictional entitlements to provinces, municipalities and cities, and barangays, assigned the settling of disputes over the boundaries of municipal waters to provinces and provided oversight functions of the governor and provincial council (Abregana et al. 1996). Annex 2 summarizes the specific roles and functions of the province in CRM.

To date, an increasing number of provinces have established CRM units within provincial environment and management offices or interim provincial CRM working groups, namely, Negros Oriental, Bohol, Masbate, and Davao del Sur (see Green et al. 2000; Yambao et al. 2001), Davao Oriental, Davao del Norte, and Palawan. Through the League of Provinces of the Philippines, other provinces are starting to formulate their CRM programs and to establish their CRM units. Table 2 summarizes the motivation behind, the processes undertaken in, and the activities and achievements of, establishing provincial CRM units in the provinces assisted by CRMP.

Table 2. Summary of the catalysts, the processes undertaken, and the activities and achievements of establishing provincial CRM units in the provinces assisted by CRMP. (Data source: Murphy et al.1999; Green et al. 2000; Yambao et al. 2001)

	Negros Oriental	Bohol	Masbate	Davao del Sur
Motivation/Catalyst	<ul style="list-style-type: none"> -Resource over-exploitation and habitat degradation due to siltation, lack of waste water treatment and destructive fishing methods -Long history of involvement in CRM (establishment of marine reserves, mangrove reforestation and nurseries) -Nature tourism as an emerging industry of the province 	<ul style="list-style-type: none"> -Pilot CRM projects and other development initiatives to address poverty and various coastal environmental issues 	<ul style="list-style-type: none"> -Expansion of Marine Fishery Development Program to cover other aspects of CRM and environmental management with funding from the Economic Development Fund and support from the Governor, Vice Governor, and Provincial Council 	<ul style="list-style-type: none"> -Decline in fisheries and degradation of coastal resource base, and related socioeconomic problems -new CRM initiatives in the province
Process	<ul style="list-style-type: none"> -Establishment of the Resources Management Division in the provincial government unit 	<ul style="list-style-type: none"> -DENR initiated the creation of a CRM task force based on EO 118, responsible for coordinating all 	<ul style="list-style-type: none"> -Creation of provincial CRM core group from various provincial government agencies, tasked to 	<ul style="list-style-type: none"> -Creation of provincial CRM Technical Working Group and training members in ICM,

	<p>-Restructuring of the Environment and Natural Resources Management Division under the Office of the Governor</p> <p>-Creation of a Coastal Resources Management Advisory Council as an advisory body of the Provincial Development Council(PDC)</p> <p>-Through the CRMP and Ting Matiao Foundation, establishment of an Advisory Council that serves as a policy-making and coordinating body at the provincial level</p> <p>-Creation of a Provincial CRM Committee (with GO and NGO representation)</p>	<p>CRM-related activities in the province, and extending technical assistance to LGUs</p> <p>-Training of Task Force members in PCRA, mangrove management, MPA establishment and management, and CRM planning</p> <p>-Formulation of Bohol Environment Code</p> <p>-Creation of Bohol Environment Management Office (with CRM staff of 7) based on Code</p> <p>-MOA between DA-BFAR, DENR and Bohol province defining their roles in CRM</p>	<p>coordinate CRM activities in the province</p> <p>-Formulation of Masbate Environment Code through a participatory process</p> <p>-Creation of the Provincial Office on Environment and Natural Resource Management based on Code</p>	<p>PCRA, and mangrove management</p> <p>-Executive Order issued by the Governor designating the provincial office of DENR (PENRO) to coordinate CRM in Davao del Sur</p>
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		- Creation of Multisectoral Technical Working Groups composed of representatives of major stakeholders in each LGU tasked with CRM planning			
Strategy for sustainability		-Clearly defined institutional arrangements for coordination -Provision of essential inputs (funding, information, technical support) -Planning and implementation of ICM plans and programs including management, education, law enforcement, sustainable enterprise -Identification of a common vision for Negros Oriental, and engaging various	-Creation of District Coastal Law Enforcement Councils to enhance inter-LGU collaboration in coastal law enforcement	-Capability-building in CRM in 20 municipalities and 1 city -Inclusion in the CRM Core Group, of technical staff from the Provincial Planning and Development Office, which has the mandate to allocate funding for the implementation of the Masbate Environment Management Program	-Joint implementation of CRM activities, e.g., PCRAs, development of CRM plans, and conducting training

	sectors and stakeholders to work together to implement ICM to achieve this vision			
Functions/Activities/Accomplishments	<ul style="list-style-type: none"> -Provide technical assistance in the conduct of PCRA and CRM planning at the municipal and barangay levels -Assist municipalities in monitoring and evaluation -Facilitate formulation of provincial CRM plan in consultation with municipalities -Develop a coordinating mechanism for CRM implementation -Conduct continuous environmental education, seminars, workshops and conferences for various target groups 	<ul style="list-style-type: none"> -Extend technical assistance to LGUs in conducting PCRA, CRM planning and implementation, coastal law enforcement -Create CRM learning areas -Implement provincial environmental programs -assist in the conduct of monitoring and evaluation of CRM plans and programs -together with CRMP, reached over 70% of the Bohol coastal municipalities 	<ul style="list-style-type: none"> -Assist in coordinating CRM activities conducted by NGOs and donor-projects -Facilitated the delineation of municipal water boundaries -Completed PCRA and CRM planning in 10 municipalities 	<ul style="list-style-type: none"> -Provided technical assistance in the conduct of PCRA and CRM planning at the municipal and barangay levels -Assist municipalities in monitoring and evaluation -Formulation of provincial CRM plan in consultation with municipalities -Development of a coordinating mechanism for CRM implementation

	(e.g., Visayas fishers symposium 2000) -Implement Participatory Fish Catch Monitoring Program -Develop and produce Ecological Survey Manuals			
Facilitation Role of CRMP	-Facilitated initial inter-agency meetings including identification of CRM trainers for the conduct of PCRA, pilot barangays for the PCRA -Provided training and mentoring in providing technical assistance to municipalities and in developing a provincial CRM plan	-Established CRM learning areas in 5 municipalities -Conducted PCRA, training in mangrove and sanctuary management, enterprise development, and ICM planning and implementation in the learning areas -Capacitating provincial staff in CRM	-Provided technical assistance to the province in the form of training and education materials -Developed a pool of technically competent personnel at the provincial level who will provide technical assistance to the municipalities	-Facilitated initial inter-agency meetings -Provided training and mentoring in providing technical assistance to municipalities and in developing a provincial CRM plan
Key lessons learned	-Strengthening of inter-agency collaboration,	-Strengthening legal arrangements and institutional	-Proactive provincial officials and committed provincial	-Strengthening inter-agency collaboration and coordination is

	<p>partnership and coordination which is important in ensuring effective CRM implementation at the provincial level, along with clear roles, a facilitating agent, official support and legal mandate</p> <ul style="list-style-type: none"> -Sustained conduct of training and educational programs -Sustained resource allocation for CRM programs by LGUs 	<p>development at the provincial level are important in institutionalizing CRM</p>	<p>CRM core group are instrumental in moving the CRM agenda forward</p>	<p>important in ensuring effective CRM implementation at the provincial level, along with clear roles, a facilitating agent, official support and legal mandate.</p>
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A provincial CRM model (Figure 1) emerges out of the four provinces' experience in CRM implementation. A provincial CRM working group evolves into one that attains a legal stature with the formulation of a provincial environmental code. Its activities can be sustained by annual allocations from the Economic Development Fund as long as funds are allocated to the provincial environment program with the blessings of provincial officials, particularly the Governor and the Provincial Council. The facilitation role of CRMP may be taken over by proactive academic institutions, NGOs, and GOs in the province. Figure 2 shows the institutional diagram and CRM process adopted in Negros Oriental identifying essential elements that were put together under a provincial CRM framework.

IV. Initiating and collaborating institutions in CRM

NGOs

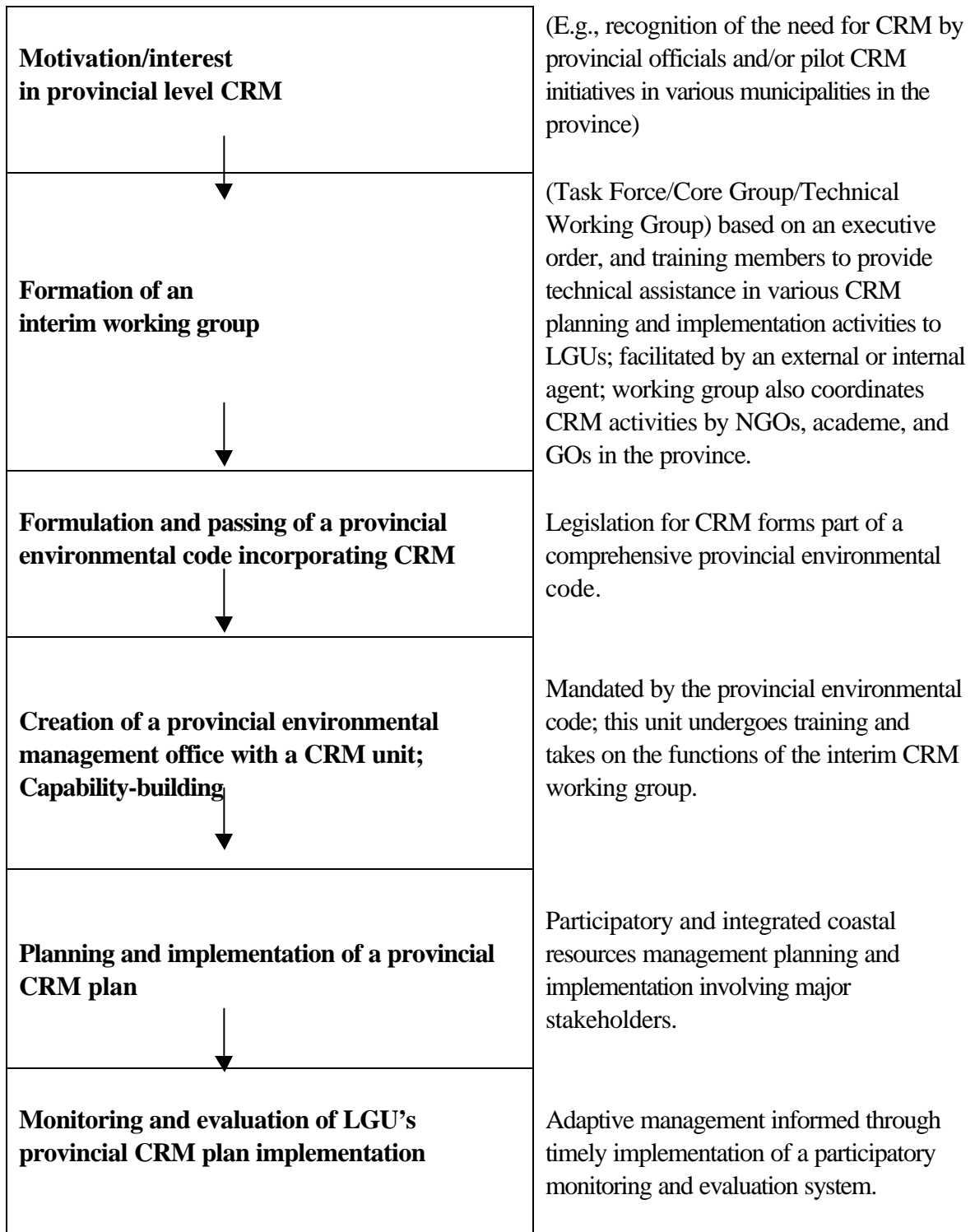
There are about 17,000 NGOs listed with the Philippine Securities and Exchange Commission that have special goals on social reforms, participatory management, community development for alternative livelihood and empowerment, and basic services delivery. NGOs have flourished in the Philippines at the termination of former Philippine President Ferdinand Marcos' term, which opened the door for greater freedom and opportunity for community organizing and other activities at the grassroots level. Much of NGO operations had been financed with external funds that had been disbursed more easily because of the absence of bureaucratic procedures common to government agencies. There was an initial distrust between government agencies and NGOs working in CRM but this has gradually been tempered with the trend and opportunities towards collaborative initiatives. The move towards accreditation of NGOs has helped this process.

The NGOs' involvement with the Fisheries Sector Program showed that, among others, NGOs are most effective in CRM education, community organizing, and advocacy work. Furthermore, local NGOs have practical knowledge of local needs and capabilities valuable to CRM. However, the absence of stable funding source to support operations beyond project terms as well as the absence or inadequacy of systems for monitoring and evaluation, and database management are the NGOs' major handicaps.

Academic institutions

Academic institutions have traditionally provided extension services to local governments in agriculture and fisheries, particularly in improving farming, fishing, and aquaculture practices and providing solutions to technical problems, through their input of research results and scientific information. This practice has extended onto marine resources management, with Silliman University in the Visayas and

Fig. 1. A provincial CRM model based on the experiences of Negros Oriental, Bohol, Masbate, and Davao del Sur.



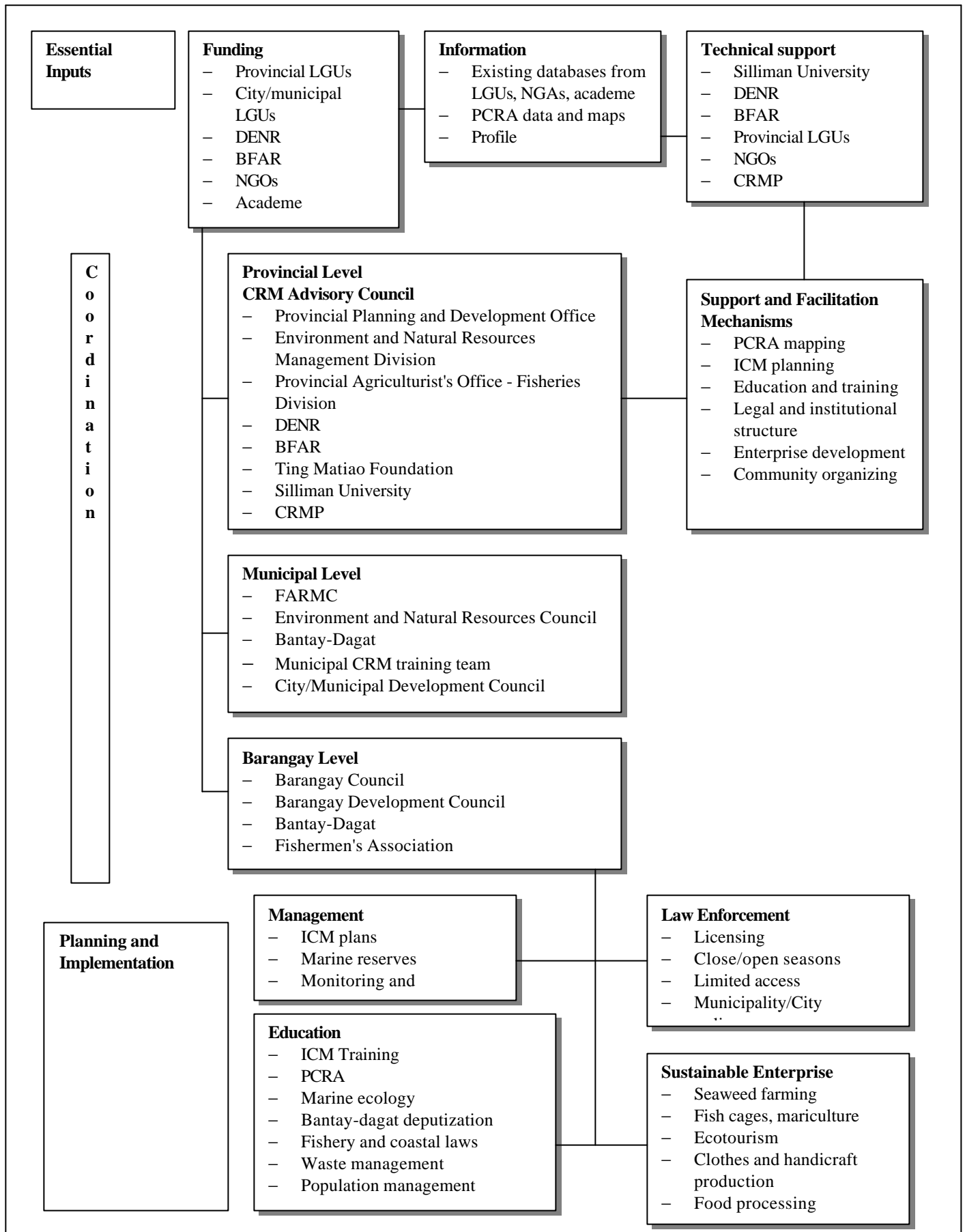


Figure 2. Institutional diagram and CRM process in Negros Oriental. (Source: Murphy et al. 1999).

University of the Philippines Marine Science Institute in Luzon providing early examples. Since the 1970s Silliman University through its Marine Laboratory has conducted marine resource management projects in various areas in and around Negros Oriental and has played key roles in the establishment and management of the well-known marine sanctuaries of Sumilon and Apo Island. These sanctuaries became models in the establishment of community-based marine sanctuaries in the Philippines with more than two decades of history. The Marine Science Institute, on the other hand, led the landmark survey of coral reefs in the country in 1983 that led to the subsequent nationwide banning of coral gathering, and has since then been a leader in generating and applying scientific information for marine resource management in the country. The need for scientific organizations to work with government and non-government organizations and the community became very evident when the Institute had to team up with the municipality, NGOs, and communities in fighting the establishment of a cement plant close to its marine laboratory in Bolinao, northern Philippines that posed adverse environmental risks to the marine environment in the area.

Following the lead of Silliman University and Marine Science Institute, other academic institutions all over the country became involved in coastal management, which intensified during the implementation of the Fisheries Sector Program in 1992. This project contracted out resource and ecological assessments of seven priority bays to academic institutions, among others, in preparation for comprehensive bay-wide coastal management planning. Today, a number of academic institutions render significant technical assistance to various programs and organizations in their vicinity and elsewhere in the country, including, in addition to the first two mentioned, Mariano Marcos State University, Pangasinan State University, and Don Mariano Marcos State University in Region 1; Cagayan State University in Region 2; Bicol University College of Fisheries in Region 5; University of the Philippines College of Fisheries and Ocean Sciences, University of San Carlos, and Leyte State University, in Regions 6, 7 and 8; Xavier University, Mindanao State University, Ateneo de Davao University, and the Zamboanga State College of Marine Science and Technology in Regions 10, 11, CARAGA, and the Autonomous Region of Mindanao.

Academic institutions have been effective in the development and standardization of methodologies for socioeconomic as well as resource and ecological assessments. The Marine Science Institute and Silliman University were instrumental in the standardization and use of methods in resource and ecological assessments and monitoring. Instead of dealing with individual local governments, academic institutions can provide training in these methods to provincial staff who can subsequently transfer the same methods to municipal CRM personnel.

D. Peoples' Organizations (POs)

Organizing coastal communities and directly involving them in planning and implementation has become a standard procedure in CRM in the Philippines. However, there has not been any careful consideration of the resulting peoples' organizations formed and their resources vis-à-vis the extent and effectiveness of their involvement. This situation can benefit from the application of the principle of comparative advantage. Throughout any project or program hierarchy, identification of strengths of the organizations involved should lead to each organization taking actions that other organizations could not. There is a lack of recognition of what more could POs do in the decision-making process and implementation of CRM. Labor is the greatest resource that these POs have in abundance and which is not tapped optimally. Local organizations such as these POs can provide opportunities for group communication where reaching rural publics is costly because of the great number and dispersion of persons to be contacted (Esman and Uphoff 1984, 25). POs can be effective in providing education and training to their members as well as to the general public by the process of horizontal diffusion, e.g., farmer-to-farmer extension method (Uphoff et al. 1998, 126). Fishers and their wives who are unable to leave their homes and livelihood in order to come to training sessions may be involved in such a training process provided an effective system of diffusion and feedback is used.

V. Needs, solutions, prospects and opportunities at various institutional levels

A. Needs

In the devolution process, there is a continuous redefinition of the relationships between and among national and local governments and their respective roles. In view of redefined roles of various institutions, there is a need for strengthening of capability at various levels, particularly at the level directly above the municipal, such as the provincial and regional levels, which can take on roles to assist the municipalities in exercising their devolved functions. Furthermore, these "middle-levels" of government can help channel financial and technical resources from the national to the municipal treasuries for this purpose.

Discussions at the provincial CRM festival held on February 20-21, 2002 in Cebu City, highlighted a number of best practices drawn from municipal and provincial CRM experience, including:

- Development of a suitable framework to guide the implementation of CRM plans and programs by LGUs;
- Adoption of a strong legal framework to provide institutional mechanisms at the provincial level and provide strategic technical assistance to municipalities and cities in key aspects of CRM;
- Demonstration of political will, through the allocation of resources for CRM at the provincial level;

- Promotion of inter-agency collaboration and partnerships, with the province serving as a center for CRM initiatives and technical assistance;
- Adoption of policies and development strategies promoting economic activities that proceed from a resource management framework, such as ecotourism; and
- Integration of monitoring and evaluation in all program plans and implementation strategies, with the province taking a facilitative role (Anonymous 2002).

In the same venue, provincial CRM practitioners raised constraints they faced in implementing their programs including lack of funding and coordination among national government agencies and LGUs. Additionally, there is a perception among these practitioners that externally assisted projects do not recognize the strategic role of provinces in directing technical assistance and other services to municipalities and cities (Anonymous 2002). Thus, there is a need to promote the engagement of provincial units in CRM and encourage the application of best management practices especially in uninitiated provinces.

In Eastern Visayas, for example, there is an existing CRM Master Plan that had been developed in the second half of the 1990s through the initiative of the National Economic Development Authority Regional Office and with the collaboration of other line agencies, academic institutions, and NGOs in the region. This Master Plan, which is awaiting funding for implementation, could be operationalized through the provinces and municipalities in phases in case a comprehensive grant to fund the Plan cannot be provided. What could be done in the region is a review, recording and consolidation of achievements by past CRM projects including the Fisheries Sector Program, and various projects initiated by the Guiuan Development Foundation, GTZ, WESAMAR, Leyte State University, University of the Philippines in the Visayas, and other academic institutions; a review and updating of the Master Plan; and a formulation and adoption of a phased implementation scheme involving provinces as the lead implementers.

B. Existing strategies and opportunities for more efficient and effective CRM planning and implementation in the country

There are existing strategies and opportunities that have been or are being piloted by CRM programs including:

1. Use of administrative agreements between organizations to resolve overlaps and conflicts in functions and responsibilities. Examples include:
 - a. DA-DILG administrative agreement which devolved authority to LGUs not specified in the LGC, including: issuance of permits for construction of fish cages, gathering of aquarium fishes, gathering of *kapis* shells, and gathering and culture of shelled molluscs; issuance of licenses to establish seaweed farms, culture pearls; and establishment of “closed seasons” within municipal waters.

- b. Joint DA-DENR Memorandum Order identifying/defining the areas of cooperation and collaboration between the two agencies in the implementation of RA 8550.
 - c. Joint DENR-DA-DILG-DND Memorandum Order providing guidelines in the establishment, management, and utilization of artificial reefs in municipal waters.
 - d. Project-driven administrative agreements (e.g., for CBRMP: between DOF and partner agencies; among POs, LGUs, and DENR*)
 - e. Placing marine conservation efforts such as marine protected areas and artificial reefs within the context of broad coastal management programs (e.g., FSP and CRMP) which emphasizes the need for an integrated approach to marine conservation. Additionally, the practice of cross-visits to promote the development of community-based marine sanctuaries increases the potential of learning from previous marine conservation efforts and not repeating unsuccessful efforts and mistakes.
2. Implementation of projects that operationalize direct decentralization of natural resources management including CRM, e.g., DOF's CBRMP, to local governments.
3. Development of a national policy for CRM. The DENR is working on a proposed National Coastal Resource Management Policy that provides a policy agenda for initiating local coastal management plans and programs and for establishing national support systems by various national government agencies, NGOs and academic institutions.
4. Optimizing the extension capability of academic institutions, NGOs, and local organizations (POs) by using the province as the hub of technical assistance between the extension agent at one end and the municipalities and POs on the other end.
5. Vigorously reviewing, recording, consolidating and applying lessons emerging out of CRM and rural development projects implemented in the Philippines and elsewhere to the formulation and implementation of CRM projects in the country.

VI. Conclusions and recommendations

* Agreements between LGUs and DENR, and between LGUs and POs are forged providing for sustained management of natural resources in project areas beyond the Project's lifetime. In such agreements, DENR has committed to maintain the areas that are being conserved under the Project.

There is a need for improvement in the way capability-building is being undertaken in order to hasten CRM implementation in an effective manner in the country. The foregoing list of needs and opportunities as well as existing strategies can be augmented by focusing on what more can other levels of government do that others cannot and tapping underutilized resources from these government offices and other local organizations to assist in the CRM endeavor. As a start, the provincial and regional levels will be looked at in the workshop discussions that will be addressing the following questions:

Current Context:

1. What are the past and on-going CRM and marine conservation activities in the region (municipal and community-based activities, bay and sea planning and management initiatives, regional and/or provincial planning)? What are some of the issues concerning coordination and support among institutions and projects? What services do provincial and regional institutions (government, non-government, and academic/research) provide for community based CRM and LGUs (municipal, city, and barangay)? Do any provincial governments have natural resources and environmental units and/or units focusing on coastal resources management and marine conservation?
2. Looking at the experiences in Negros Oriental, Bohol, Davao del Sur and Masbate, how do you characterize CRM at the provincial level in terms of legal basis and authority, structure, functions, human and financial resources, and political and other types of support?
3. What are the achievements of CRM in the above-mentioned provinces so far and what are the lessons learned? How did CRM units in these provinces help municipal-and barangay-level CRM implementation? How did these CRM units help in implementing national/regional CRM initiatives and what kind of support did they receive from national and regional GOs in order to do this?

Looking Forward:

4. How can CRM at the provincial level evolve/develop? What are the elements that can catalyze and promote such a development? Is there an existing municipal-level CRM initiative and province-wide demand for CRM that can motivate the process? How can provincial institutions coordinate delivery of services to coastal communities and what type of services and support need to be provided?
5. What are the important elements that can ensure the sustainability of CRM implementation at the provincial level?
6. What roles can NGOs, academic and other research and extension institutions, and externally assisted resource management programs play in effectively promoting CRM at the provincial level?
7. What are the prospects and opportunities for replicating provincial-level CRM in eastern Visayas and the rest of the Philippines? Should other provinces develop provincial CRM units? What are the needs and requirements for replication?

References

- Abregana, B. P.G. Barber, M. Maxino, P. Sanders and D. VanderZwaag. 1996. Legal challenges for local management of marine resources: a Philippine study. Environment and Resource Management Project (ERMP) Philippines, Halifax, Nova Scotia, Canada and College, Laguna, Philippines.
- Aliño, P.M. and A. Juinio-Meñez. What is common about the management of the Philippine Coastal Marine Resources? University of the Philippines Marine Science Institute, Quezon City, Philippines.
- Anonymous. 2002. Provinces take lead in coastal management. *Overseas The Online Magazine for Sustainable Seas* 4(2):4-5. Available: http://www.oneocean.org/overseas/200202/coastal_alert.html
- Asian Social Institute. 1995. Guiuan Marine Development and Management Program: A Process Documentation Report. Asian Social Institute Action Research Department.
- Buhat, D. 1994. Community-based coral reef and fisheries management, San Salvador Island, Philippines. pp. 33-49. In: White, A. T., L.Z. Hale, Y. Renard and L. Cortesi. (Eds.) 1994. Collaborative and community-based management of coral reefs: lessons from experience. Kumarian Press, West Hartford, Connecticut, USA. pp. 124.
- Calumpong, H.P. 1996. The Central Visayas Regional Project: Lessons Learned. Tambuli.- A Newsletter for Coastal Management Practitioners. Philippines Coastal Resources Management Project. pp. 12- 17.
- Courtney, C.A., R. Cruz, E. Deguit, R. Fuentes, C. Gestopa, S. Green, R. de Leon, E. Leung, E. Melana, W. Jatulan, P. Sayson, A.White and A.Yambao. 2001. Guidelines for annual monitoring and evaluation of municipal/city coastal resource management plans and programs for certification. CRMP Document No. 46-CRM.
- Crawford, B., M. Balgos and C. Pagdilao. 2000. Community-based marine sanctuaries in the Philippines: a report on the focus group discussions. University of Rhode Island Coastal Resources Center, Narragansett, Rhode Island, USA; Philippine Council for Aquatic and Marine Research and Development, Los Baños, Laguna, Philippines.
- DENR, DILG, DA-BFAR and CRMP. 1997. Legal and jurisdictional guidebook for coastal resource management in the Philippines. Department of Environment and Natural Resources; Department of Interior and Local Government; Department of Agriculture-

- Bureau of Fisheries and Aquatic Resources; and Coastal Resources Management Project (CRMP), Philippines.
- Esman, M.J. and N.T. Uphoff. 1984. Local organizations: Intermediaries in rural development. Cornell University Press, Ithaca, New York.
- Ferrer, E.M. Overview of community-based coastal resources management (C-B CRM) in the Philippines. University of the Philippines College of Social Work and Community Development, Quezon City, Philippines.
- Green, S.J., R.P. Monreal, D.A.D. Diamante-Fabunan and T.G. Bayer. 2000. Developing integrated coastal management into a natural response: The story of Bohol. Tambuli A Publication for Coastal Management Practitioners (6):1,3-9.
- Joint DA-DENR Memorandum Order No. 01. Identifying/defining the areas of cooperation and collaboration between DA and DENR in the implementation of RA 8550.
- Joint DENR-DA-DILG-DND Memorandum Order. Providing guidelines in the establishment, management, and utilization of artificial reefs in municipal waters.
- Murphy, J.M.,W.E. Ablong and A.T.White. 1999. Integrated Coastal Management in Negros Oriental: Building on Experience. Tambuli A Publication for Coastal Management Practitioners (5):1,3-9.
- PD 704. 1975. Fisheries Decree of 1975.
- Pollnac, R.B. and B.R. Crawford. 2000. Discovering factors that influence the success of community-based marine protected areas in the Visayas, Philippines. Coastal Management Report # 2229. PCAMRD Book Series No. 33. Coastal Resources Center University of Rhode Island, Narragansett, RI, USA, and Philippine Council for Aquatic and Marine Research and Development, Los Baños, Laguna, Philippines.
- Pomeroy, R.S. and M.B. Carlos. 1997. Community-based coastal resources management in the Philippines: a review and evaluation of programs and projects, 1984-1994. Marine Policy. Vol. 21. No. 5. pp. 445-464.
- RA 7160. 1991. The Local Government Code of 1991. Republic of the Philippines.
- RA 8550. 1998. Philippine Fisheries Code of 1998: An Act Providing for the Development, Management and Conservation of the Fisheries and Aquatic Resources, Integrating all Laws Pertinent Thereto and for other Purposes. pp. 59.

- Rivera, R. and G.F. Newkirk. 1997. Power from the people: a documentation of non-governmental organizations' experience in community-based coastal resource management in the Philippines. *Ocean and Coastal Management* 36(1-3):73-95.
- Russ, G.R. 1994. Sumilon Island Reserve: 20 years of hopes and frustrations. *Naga, the ICLARM Quarterly* 17(3):8-12.
- Uphoff, N., M.J. Esman and A. Krishna. 1998. *Reasons for success: Learning from instructive experiences in rural development*. Kumarian Press, West Hartford, Connecticut.
- Valle, I.A., M.C.B. Cristobal, A. T. White and E.T. Deguit. 2000. Coastal Environmental Profile of the Malalag Area Davao del Sur, Philippines. Coastal Resources Management Project, DENR.
- White, A. T., L.Z. Hale, Y. Renard and L. Cortesi. (eds.) 1994. *Collaborative and community-based management of coral reefs: lessons from experience*. Kumarian Press, West Hartford, Connecticut, USA. pp. 124.
- Yambao, A.C., E.T. Deguit and A.T. White. 2001. Philippine Coastal Resource Management: Bohol, Masbate and Davao del Sur forge ahead. *Overseas The Online Magazine for Sustainable Seas* 4(10):19 p.
- Zaragoza, E.C., R. Hermes and A. B. Olandes, Jr. 2000. Policy framework and research initiatives for sustaining coral reef ecosystems through coastal resources management in the Philippines. Paper presented at the Workshop on Policy Options for the Sustainable Use of Coral Reefs and Associated Coastal Ecosystems, June 19-22, 2000, Mombasa, Kenya.

Annex 1

National agencies mainly responsible for coastal resource management (CRM) in the Philippines and their functions relative to CRM.

Agency	Functions
<i>Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR)</i>	<ul style="list-style-type: none"> -policy direction on CRM implementation in the country -provide technical assistance to LGUs -provide training and extension services on CRM -assist LGUs in the establishment of marine sanctuaries -coordinate with LGUs in the enforcement of FAOs -regulate fishing activities outside municipal waters
<i>Department of Environment and Natural Resources (DENR)</i>	<ul style="list-style-type: none"> -exploration, development, and wise use, management, renewal, and conservation of the country's forest, mineral, land, water, fisheries, wildlife, and other natural resources -promulgation of rules, regulations, and guidelines on the issuance of permits, concessions, lease agreements, and other privileges concerning the development, exploration, and utilization of marine, freshwater and brackishwater, and overall aquatic resources of the country.
<i>Department of Interior and Local Government (DILG)</i>	<ul style="list-style-type: none"> -planning, implementing, monitoring, and evaluating plans, programs, and policies pertaining to local autonomy, decentralization, and local governance, through the Bureau of Local Government Development, Bureau of Local Government Supervision, National Barangay Operations Office, and the Local Government Academy. -PNP-Maritime Command under DILG has authority to perform police functions over Philippine territorial waters and rivers, coastal areas from the shoreline to one mile inland to include ports and harbors and small islands of two miles in length or diameter with less than 1,000 population; absorbed all police functions of the Philippine Coast Guard since June 1992.
<i>Department of Transportation and Communications (DOTC)</i>	<ul style="list-style-type: none"> -undertakes policy formulation, infrastructure development, and regulatory functions; e.g., involved in the construction of fish ports, municipal ports, and improvement and maintenance of lighthouses. -the Maritime Industry Authority (MARINA), an attached agency, is responsible for the promotion and development of the maritime industry, the regulation of shipping and maritime

	<p>safety regulatory functions in collaboration with the PCG.</p> <ul style="list-style-type: none"> -the Philippine Ports Authority, an attached agency, is responsible for the development and the provision and supervision, control, operation, and maintenance of port facilities and services; PPA regulates the establishment of private ports.
<p><i>Department of National Defense-Philippine Navy (DND-PN)</i></p>	<ul style="list-style-type: none"> -promotes safety at sea -promotes maritime security as an armed force -assists in the implementation of laws in the high seas and waters under Philippine jurisdiction, including those pertaining to the prevention, mitigation, and control of marine pollution -safeguard marine resources and environment
<p><i>Department of Science and Technology-Philippine Council for Aquatic and Marine Research and Development (DOST-PCAMRD)</i></p>	<ul style="list-style-type: none"> -monitors aquatic and marine research and development projects -formulates strategies, policies, plans, programs, and projects for aquatic and marine science technology -generates external funds -provides research and development directions for fisheries and aquatic resources through a network of research and development institutions, state colleges and universities, and regional research stations of DA and DENR.

Annex 2

Specific roles and functions of the province in CRM (taken from DENR et al. 2000 as cited in Yambao et al. 2001).

<p style="text-align: center;">Planning</p> <ul style="list-style-type: none"> • Formulate socioeconomic development plans, including CRM plan
<p><i>Legislation</i></p> <ul style="list-style-type: none"> • Approve ordinances which help ensure the efficient and effective delivery of CRM (including pollution control) as a basic service • Review ordinances enacted by municipality/city government
<p style="text-align: center;">Regulatory</p> <ul style="list-style-type: none"> • Issue permit and collect fees for guano collection • Issue permit to extract sand, gravel, and other quarry resources
<p style="text-align: center;">Enforcement</p> <ul style="list-style-type: none"> • Enforce all laws and ordinances relating to pollution and environmental protection • Protect the environment and impose appropriate penalties for the following acts: <ul style="list-style-type: none"> - Dynamite fishing and other forms of destructive fishing - Illegal logging and smuggling of logs - Smuggling of natural resource products and endangered species - Slash-and-burn farming - Other activities which will result in pollution, acceleration of eutrophication of rivers and lakes, or ecological imbalance • Prescribe criminal penalty prescribed under the Fisheries Code • Enforce forestry laws in community-based forestry areas • Enforce small-scale mining laws, subject to policies of the DENR • Verify and adjudicate conflicts on guano collection and on sand, gravel, and other quarry resources
<p style="text-align: center;">Taxation</p> <ul style="list-style-type: none"> • Impose taxes on sand, gravel, and other quarry resources • Define the geographic criteria for application of LGU taxes and levies based on the location of the transaction or the operation branch, outlet, or office • Formulate special levies on real property and the procedure for allocating proceeds • Receive share from the internal revenue allotment (IRA) • Receive share of proceeds for government agencies or government-owned and controlled corporations

<p style="text-align: center;">Extension/Technical Assistance</p> <ul style="list-style-type: none"> • Provide agricultural extension and on-site services and facilities, which include the organization of farmers and fishers cooperatives and the other collective organizations • Integrate cooperations for agricultural extension services and undertake annual evaluation of all municipal extension programs
<p style="text-align: center;">Intergovernmental Relations</p> <ul style="list-style-type: none"> • Group together, consolidate, or coordinate efforts, services, and resources for commonly beneficial purposes • Group together and coordinate with each other to achieve the objectives of integrated fishery resource management • Share with the national government responsibility in the management and maintenance of ecological balance within the territorial jurisdiction
<p style="text-align: center;">Relations with People's Organization and Nongovernment Organizations</p> <ul style="list-style-type: none"> • Promote the establishment and operation of POs and NGOs • Enter into joint ventures and other cooperative arrangements with POs and NGOs • Develop local enterprises and provide assistance to POs and NGOs