

# **INSTITUTIONAL ARRANGEMENTS AFFECTING COASTAL RESOURCES MANAGEMENT INITIATIVES IN THE PHILIPPINES: TRENDS, DEMANDS AND ISSUES**

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## **Abstract**

The Philippines has substantial experiences in coastal resources management (CRM). Since the mid-1970s, there have been at least 200 projects undertaking different aspects of coastal resources management from community education/organizing, livelihood, advocacy, marine protected area planning to policy development and research. The growth is phenomenal. The onset of several large projects with funding from bilateral and multilateral donors played a key role in its increase. Today, the management of the country's coastal resources has used different approaches from integrated coastal management to community-based coastal resources management to co-management and to integrated area development. The key themes in all these approaches are integration across diverse sectors and uses of coastal resources and the involvement of communities and the government in coastal resources management.

Central to this development is the role formal institutions play in shaping the domain through which CRM prospered. There are key developments in the institutional arena that led to its phenomenal growth in the Philippines. Foremost among these developments is the Constitution of 1987, which, aside from specifying three modes of utilization of resources, spurred the enactment of important pieces of legislation that supports CRM. Secondly, the interest which the United Nations Convention on Environment and Development (UNCED) in Rio de Janeiro in 1992 engendered on integrated coastal resources management worldwide and the subsequent acceptance of bilateral and multilateral donors of their importance. Thirdly, another factor leading to the growth of CRM in the Philippines is the presence of a diverse number of local NGOs, who are in the forefront of experimenting various aspects of CRM in the Philippines, and the availability of NGO funding mechanisms. Finally, CRM flourishes in the Philippines due to the opportunities provided by the government through its policies to involve communities and other civil society actors in pursuing its mandates as manifested in important legislation's providing for community participation.

The aim of this paper is to show the growth of CRM in the country, the factors that are thought to have played crucial roles, the formal institutions that underpin its development, and the issues that need to be addressed for CRM to fully succeed.

## Introduction

The Philippines, with a coastline longer than that of the United States, can boast of substantial experiences in coastal resources management. Since the mid-1970s to 2000, there have been at least 200 projects undertaking different aspects of coastal resources management from community education/organizing, livelihood, advocacy, marine protected area planning to policy development and research (see Figure 1). The growth is phenomenal. In 1984 to 1994 alone, more than 100 areas in the Philippines were already covered with CRM initiatives (Pomeroy and Carlos 1997). Various CRM approaches were tested, refined and pursued in the country from integrated coastal management (Chua and Scura 1992) to community-based coastal resources management (Rivera and Newkirk 1997) to co-management (Pomeroy and Williams 1994) and to integrated area development, which takes a broader regional approach. The key themes in all these approaches are integration across diverse sectors and uses of coastal resources and the involvement of communities and the government in coastal resources management.

Central to the growth of CRM in the country is the role played by formal institutions (i.e. those that are written such as laws and policies) in shaping the domain through which it prospered. The knowledge generated through CRM has led to the formulation or reformulation of institutional arrangements to suit new realities. Institutions, including informal rules, define behavior in a society (Ostrom 1990). The aim of this paper is to show the growth of CRM in the country, the factors that are thought to have played crucial roles, the formal institutions that underpin its development, and the issues that need to be addressed for CRM to fully succeed.

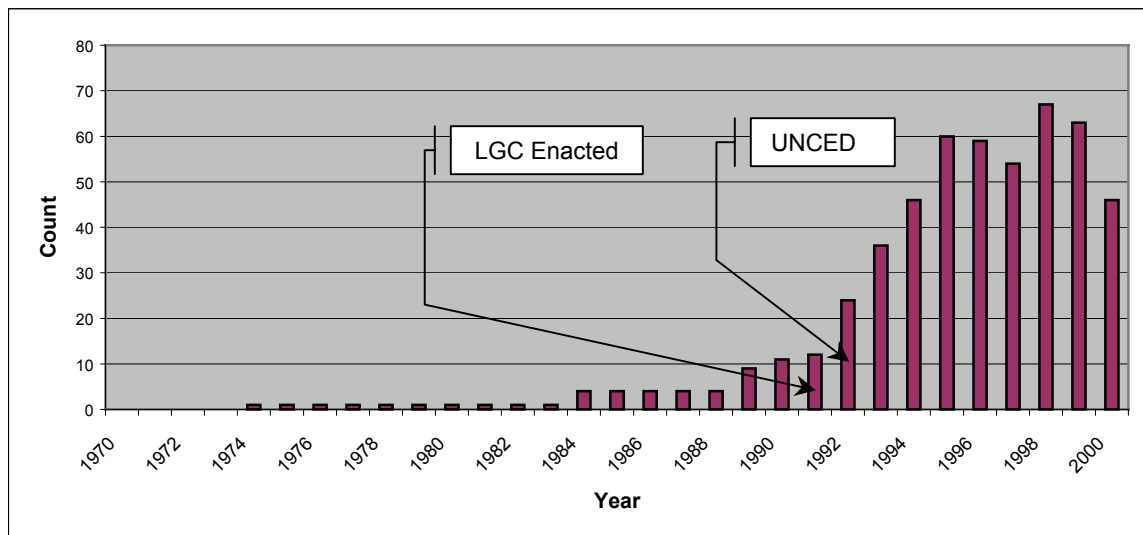


Figure 1. Annual estimates of the number of CRM projects implemented, 1970-2000 (Source: Salamanca, forthcoming)

## History of CRM

The history of CRM in the Philippines may best be presented in two time periods – the pre- and post-Local Government Code<sup>1</sup> (LGC) (Figure 1). The pre-LGC period covers the years prior to 1991 before the LGC was enacted while the post-LGC spans the period from 1991 and onwards. CRM took off in the Philippines through a series of community-based initiatives such as the Marine Conservation Development Program (MCDP) of Silliman University, the Central Visayas Regional Project-1 (CVRP-1), and the ASEAN-US Coastal Resources Management Program-Lingayen Gulf (ASEAN-US CRMP). Community-based natural resources management in the Philippines started in the 1950s in the agriculture sector (Alcala 1998). Community-based approaches in coastal resources management started with experiments in the Central Visayas covering small islands (i.e. Apo and Sumilon Islands) and involving coastal communities in managing marine reserves and fish sanctuaries during the 1970s and early 1980s (White 1989; Russ and Alcala 1999). A private university led their implementation. Sumilon Island in the Province of Cebu is an offshore island and most of the fishers using the island's fishery resources come from surrounding *barangays* (smallest political unit) in mainland Cebu. Apo Island, on the other hand, is a volcanic island with sizeable coastal communities belonging to the Province of Negros Oriental. Management of Sumilon Island marine reserve and fish sanctuary was intermittent due to political factors while that of Apo Island continued to the present without any break (Russ and Alcala 1998). The experience of Apo Island, the most successful CRM site in the Philippines demonstrating marked improvements in fisheries yield and coral reef habitats (Russ and Alcala 1996), has spawned similar efforts nationwide. One of these was the San Salvador Marine Conservation Project in Masinloc, Zambales, which was initiated by Haribon Foundation, an environmental NGO. The San Salvador project replicates the experiences in the Central Visayas and has proven to be one of the few relatively enduring CRM initiatives in the country (Katon et al. 1999).

From 1984 to 1991, CVRP-1 broke new grounds for being “the country's first attempt at implementing region-wide community-based management schemes for managing coastal resources” (de los Angeles and Pelayo 1995:131) and being the first<sup>2</sup> major foreign-assisted project in the Philippines to support the government's regionalization agenda (The World Bank 1993). The World Bank funded this project and it has five components: upland agriculture, social forestry, nearshore fisheries, and infrastructure and support services. The nearshore fisheries component established artificial reefs, replanted degraded mangrove areas, and established coral reef sanctuaries in four provinces in Central Visayas. Use rights were allocated to families who participated in the artificial reefs program.

From 1986 to 1991, the Lingayen Gulf Coastal Area management Project was executed with funding provided by the United States Agency for International Development as part of the ASEAN-US Coastal Resources Management Program (Chua 1998). Agencies of the Philippine government such as the Department of Science and Technology and the National Economic and Development Authority as well as the academe, primarily the University of the Philippines, were involved. The goal of the

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<sup>1</sup> Republic Act No. 7160

<sup>2</sup> Earlier foreign-assisted environmental programs of the government prior to CVRP were Rainfed Agricultural Development (Loan 1815-PH), Watershed management (Loan 1890-PH), Environmental and Natural Resources Sector Adjustment Program (Loan 3360-PH/Cr. 2277-PH), Smallholder Tree Farming and Forestry Project (Loan 1506-PH) (The World Bank 1993).

project was “to increase national capabilities...for developing and implementing comprehensive, multidisciplinary and environmentally sustainable CRM strategies”. The Lingayen Gulf coastal area management experience is considered unique because it i) pioneered a model for coastal area management larger than those in Apo and Sumilon Islands; ii) it was able to formulate a management plan with the involvement of 17 municipalities, two provinces, and a regional development council; and, iii) the management plan was legally mandated through national legislation. Presently, a commission is implementing the plan (Talaue McManus and Chua Thia Eng 1997).

Other similar efforts started earlier or at about the same time helped push for coastal resources management. Among these were the San Miguel Bay Integrated Coastal Fisheries Management Project of ICLARM and the Fisheries Integrated Resources Management and Economic Development (FIRMED) of the Community Extension for Research and Development (CERD). The former was basically a research and planning initiative (Silvestre 1996) while the latter involves the protection and management of a bay (Rivera and Newkirk 1997).

In the post-LGC period, the confluence of important developments from LGC to the National Integrated Protected Areas System Act (NIPAS) to the experiences from Apo Island, Sumilon Island, San Salvador Island, CVRP, and LGCAMP and to the enthusiasm which UNCED in Rio de Janeiro brought to integrated coastal resources management worldwide led to major increases in the number of CRM projects in the Philippines. By 1998, nearly 70 projects were implemented (Figure 1) including big ticket projects, by Philippine standard, such as the Fisheries Sector Program and Fisheries Resources Management Program of the Department of Agriculture (DA); Coastal resources Management Program of the Department of Environment and Natural Resources (DENR); and GEF/UNDP/IMO Regional Program for the Prevention and Management of Marine Pollution in the East Asian Seas.

#### Institutional Factors Influencing the Growth of CRM in the Philippines

There are key developments in the institutional arena that may have led to the phenomenal growth of CRM initiatives in the Philippines.

Foremost among these factors is the Constitution of 1987. In Article 12 Sec. 4, it is explicitly stated that three modes of utilization of resources may be allowed:

- a. Direct exploitation by the State
- b. Through joint, venture, production sharing and co-production with the State; and
- c. Directly by small scale users.

In the deliberation of the Constitutional Commission, it was made clear that the intent of the framers was to do away with concessions and licenses. This is to prevent rent seeking, the making of huge amounts of profits from state owned resources by merely being "allowed" to do something rather than giving permission "to take state-owned resources for private use". This was the Constitutional Commission's reaction to the decades of giving away concessions as political favors.

In the prevention of rent seeking, however, enough room was given for small-scale utilization by marginal users to wit:

“The Congress may, by law, allow **small-scale utilization of natural resources by Filipino citizens** [emphasis ours], as well as cooperative fish farming, with priority to subsistence fishermen and fish workers in rivers, lakes, bays and lagoons.”

This constitutional mandate may not have been the key to the initiation of CRM projects but it certainly gave the impetus to implementers to defend their work and uphold their successes.

With respect to statutory factors, the period after the Constitution also spurred the enactment of important pieces of legislation that supported CRM initiatives. Foremost among these is the LGC that allows for the devolution of certain functions of the national government on natural resource management to local government units (LGUs) and promotes the participation of people's organization in local development. It also grants jurisdiction of municipal waters to LGUs. The LGC provides for the much-needed institutional framework for a decentralized management of coastal resources to occur and encourages people's organization and NGOs to actively participate in coastal resource management efforts. As a result of the LGC, several fish sanctuaries and marine reserves were established in several coastal *barangays* and municipalities (Luna 1999), which broaden the CRM experience. Next is the enactment of the NIPAS Act<sup>3</sup> that provides for the conservation of ecologically important seascapes and coastal areas. This law is important as it enshrines marine protected area planning as an important vehicle in the conservation and management of marine biodiversity and ensures that other stakeholders, other than the government, are represented in the management of marine protected areas. With the passage of the NIPAS law, major government programs in support of biodiversity conservation also came into existence. The World Bank has provided a loan for the conservation of priority-protected areas to a consortium of NGOs and the DENR to undertake protected area planning, management and research. In the same manner, the European Union extended a grant to the DENR for similar activities especially to areas not covered by the World Bank loan while incorporating livelihood assistance and protected area infrastructure as main components. As a result of these programs, the number of biodiversity-related projects using CRM as a framework of implementation has grown despite some fears that the national bias of NIPAS and the central role played by DENR may dampen effective community participation due to bureaucratic attitudes and processes (White et al. 2002).

The current development and management of the Philippine fisheries sector is being guided by Agricultural and Fisheries Modernization Act of 1997<sup>4</sup> (AFMA). AFMA seeks to modernize agriculture and fisheries by transforming them from being resource-based to technology-based industries. The introduction of new technologies and large capital investments are therefore the key ingredients of this policy. These objectives came about in view of the fact that rural infrastructure is weak; there is under-investment in farm and agriculture infrastructure; lack of research and development support and widespread rural poverty (Homer 1999).

The New Fisheries Code of 1998<sup>5</sup> replaces Presidential Decree 704. The latter was oriented towards commercial exploitation of the country's fishery resource rather than its sustainable use, conservation and management. The overriding focus of this new Code is on addressing food security and takes on integrated coastal area management as a thrust. It gives preferential rights to municipal fishers to the use of municipal waters and provides for support through appropriate technology, information, financial assistance,

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<sup>3</sup> Republic Act No. 7586

<sup>4</sup> Republic Act No. 8435

<sup>5</sup> Republic Act No. 8550

post-harvest facilities and marketing. The code mandates the establishment of fisheries and aquatic resources management councils (FARMCs), composed of people's organizations, NGOs, and local government units (LGUs) in bays and municipal waters. FARMCs are also to be created at the *barangay*, city and national level. The aim of the FARMCs is to decentralize the management of fisheries and aquatic resources and create opportunities for grassroots organizations and local government units to work together on the management and wise utilization of their resources.

Secondly, the interest which the United Nations Convention on Environment and Development (UNCED) in Rio de Janeiro in 1992 engendered on integrated coastal resources management worldwide and the subsequent acceptance of bilateral and multilateral donors of their importance (Christie and White 1997; Sorensen 1997) has contributed a great deal to the growth of CRM in the Philippines. Grants, loans and other forms of financial assistance are the lifeblood of CRM programs in the Philippines as these are not commercial investments with obvious financial returns. Table 1 lists the donors of CRM in the Philippines.

Table 1. Sources of CRM grants in the Philippines, 1974-2000 (Source: Salamanca, forthcoming)

<b>International Sources of Funds</b>
Asian Development Bank
Australian Agency for International Development (AusAID)
Bread for the World (Social Service Agency of the Evangelical
Canadian International Development Agency (CIDA)
Catholic Organization for Development Cooperation (CEBEMO)
Center for Development and Population Activities
Christian Aid
Christian Initiative Center for International Learning
Danish International Development Agency (Danida)
David and Lucille Packard Foundation
Debt-for-Nature Swap (DENR-WWF-Haribon)
Department for International Development (DFID)
Embassy of Japan
European Union
EZE (Protestant Association for Cooperation in Development)
Food and Agriculture Organization
Global Environmental Facility
Helvetas (The Swiss Association for International Cooperation)
Henry Foundation
International Center for Research on Women-Promoting Women in
International Development Research Center (IDRC)
Keidanren (Japanese Federation of Economic Organizations)
John D. and Catherine T. MacArthur Foundation
National Center for Cooperation in Development (NCOS)
Novib – Oxfam Netherlands
Oxfam – America
Oxfam – UK and Ireland

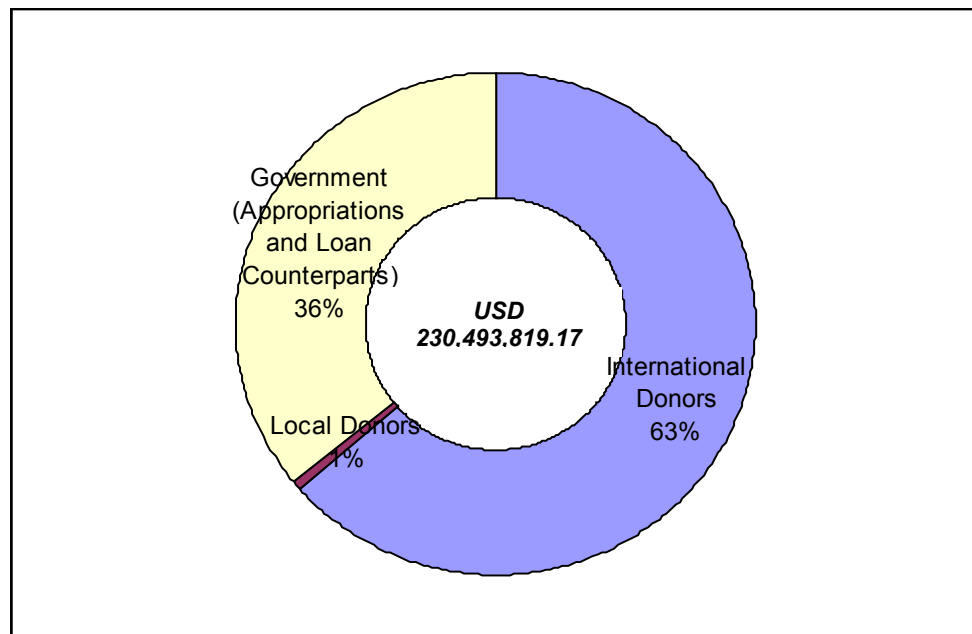
Oxford University PLAN-Netherlands National Office Rockefeller Brothers Fund Royal Netherlands Embassy SNV (Netherlands Development Organization) Swedish International Development Cooperation Agency (Sida) Swiss Catholic Lenten Fund The Asia Foundation TRAFFIC-Southeast Asia Trocaire (Irish Catholic Agency for World Development) United Nations Development Program (UNDP) United Nations Educational, Scientific and Cultural Organization US Agency for International Development (USAID) Voluntary Service Overseas The World Bank World Resources Institute World Wildlife Fund – US
<b>Local Sources of Funds</b>
ABS-CBN Foundation Angelo King Foundation Foundation for the Philippine Environment General Appropriations from the Government of the Philippines Philippine Network of Rural Development Institutes, Inc (Philnet- Silliman University Marine Laboratory Budget

From 1974 to 2000, at least 200 projects were implemented with estimated total funding of at least USD 230 million as estimated by the first author in a separate publication currently being prepared. Sixty-three percent of funding for CRM came from bilateral and multilateral donors, the international NGO community and from international philanthropic organizations (Figure 2). In terms of size of grants, the top three major donors are the Asian Development Bank, the European Union and the US Agency for International Development. Among the philanthropic organizations, Oxfam-Great Britain, the Rockefeller Brothers Fund, and Trocaire are the major donors (Salamanca, forthcoming).

Thirdly, another factor leading to the growth of CRM in the Philippines is the presence of a diverse number of local NGOs who are in the forefront of experimenting various aspects of CRM or modes of carrying out CRM in the Philippines (Rivera and Newkirk 1997) such as the sustainable coastal area development of Tambuyog Development Center, Fisheries Integrated Coastal Resources Management for Economic Development of CERD (Community Extension and Research for Development), coastal resources management training of Haribon Foundation and the tripartite partnership for marine and aquatic management and rural development of PHILDRRA (Partnership for the Development of Human Resources in Rural Areas).

Further growth of NGO involvement in CRM is fueled by a host of factors such as the availability of funds from bilateral and multilateral donors, government contracting of CRM activities such as the case of FSP and FRMP, NGO involvement in marine protected area management as provided for in the NIPAS Act and the LGC, and most importantly, the presence of a grant making organization – the Foundation of Philippine Environment<sup>6</sup> and the UNDP-GEF-Small Grants Program (SGP) – that provides funds for civil society initiatives (e.g. NGOs, people’s organizations etc.) on CRM initiatives and advocacy’s. The former is an important development because it institutionalizes support for NGOs, people’s organizations and local communities in their efforts toward environmental conservation and management thereby enriching the country’s CRM experience. NGOs and peoples organizations may seek funding for projects that fall within the objectives and mandate of FPE and UNDP-GEF-SGP. From 1992 to 1999,

**Figure 2. Sources of CRM funds by categories, 1970-2000 (Salamanca, forthcoming)**



<sup>6</sup> Funds for FPE are provided through an endowment fund composed of funds arranged through a debt-for nature scheme (Ganapin Jr 1993) and grants from USAID (Foundation for the Philippine Environment 2001).



FPE has funded<sup>7</sup> around 50 CRM-related initiatives to more than 40 NGOs, POs and academic institutions, even though marine community-based resource management received less funding compared to their upland counterpart (Foundation for the Philippine Environment 1996). UNDP-GEF-SGP<sup>8</sup>, on the other hand, has 22 projects since 1992.

Finally, CRM flourishes in the Philippines due to the opportunities provided by the government through its policies to involve communities and other civil society actors in pursuing its mandates as manifested in important legislations providing for community participation. Specifically, the involvement of communities, people's organization and NGOs are specified in the NIPAS Act (through the involvement of people's organizations in protected area management), in forest management (through community-based forestry), in environmental impact assessment (social acceptability of development projects), in bioprospecting and mining (through the principle of prior informed consent), and in the New Fisheries Code (through the involvement of fisheries cooperatives and organizations in resource management councils (Alcala and Vande Vusse 1994; Katon et al. 1999; La Vina 1999).

#### CRM and the Institutional Milieu in the Philippines

From the abovementioned development of CRM in the Philippines, what is the institutional milieu that provides context to the development of CRM? Understanding this will help point out to the future direction of CRM in the country in the midst of changing political, social and economic circumstances.

Management of coastal resources in the Philippines involves the different arms of government from economic planning, budget, implementation to monitoring and enforcement. Overall responsibility for coastal environmental protection and management lies within the Department of Environment and Natural Resources (DENR) while management, development and conservation of fishery resources is under the Department of Agriculture (DA) through its line agency, the Bureau of Fisheries and Aquatic Resources (BFAR). National fisheries policy and fisheries administrative orders to limit entry into fishing and prohibit certain gears and fishing practices, among others, emanate from BFAR. In short, the utilization functions of fisheries and coastal resources are lodged within DA while the conservation and protection functions fall within the DENR. This split creates problems of management jurisdiction and overlapping mandates. However, La Vina (1999:23) argued that "the DENR has the potential to design and implement a program that covers the entire spectrum of coastal resources management: from wildlife, protected areas management, to pollution control, forests/mangroves conservation, land use, mining regulations, and others". The DENR, for example, is primarily responsible for the management and conservation of mangroves and other coastal wetlands, which are important coastal ecosystems. In addition, the DENR is responsible for managing marine pollution through various regulations, which control the discharge of wastes into the sea or the impact of certain activities. The department is also mandated to institutionalize environmental impact assessment (EIA), a

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<sup>7</sup> FPE has four levels of funding: action, proactive grants and responsive grants. Action grants are funding for short-term activities that support wider education on biodiversity conservation. Site focus grants are for projects to preserve biodiversity in identified priority sites and to assist NGOs and POs through appropriate funding and technical assistance from relevant cooperation partners. The objectives of proactive grants are to develop strategic interventions and mechanism in support for biodiversity conservation and sustainable development. Responsive grants address capacity building and community based resources management (Foundation for the Philippine Environment 1996).

<sup>8</sup> This program is designed primarily to provide assistance to NGOs, people's organizations (POs) and community based organizations (CBOs) and does not provide grants to government agencies. It awards grants to a project of up to a maximum of US\$50,000 (Cunanan, pers comm.).

major tool in environmental management, in projects or activities that have potential and significant environmental impacts. Due to the interdependence among ecosystems, other programs of DENR particularly the management of watersheds and catchments also have crucial impacts on the state of the coastal zone.

To strengthen its role and mandate in coastal resources management, DENR established the Coastal Environment Program in 1993. The program was mandated to co-ordinate and spearhead the department's projects on the management of the coastal environment. The broadening of its mandate was made possible due to Executive Order (E.O.) 292, the Administrative Code of 1987, which added fisheries, marine and aquatic resource concerns within the mandate of DENR. Earlier, when the department was reorganized under Executive Order 192 in 1986, these concerns were not under DENR's jurisdiction. The expansion of DENR's mandate to include the coastal environment created institutional and administrative confusions and conflict of jurisdictions (La Vina 1999).

The establishment of CEP as a program is a recognition of the importance of the coastal zone and the need to manage it well. However, the department has no coherent program to manage the diverse and oftentimes overlapping issues in the coastal zone and it does not have the appropriate staff to carry out CRM work. Most of the staff working with CEP are foresters (Barangan, pers. comm.). Furthermore, various management issues in the coastal zone are under the jurisdiction of sectoral bureaus. For example, mangrove management and rehabilitation falls under the Forest Management Bureau while research is being carried out by the Ecosystem Research and Development Bureau; the assessment of environmental impacts of projects in the coastal zone is undertaken by the Environmental Management Bureau; and, the management of protected areas and wildlife sanctuaries as well as biodiversity conservation fall under the Protected Areas and Wildlife Bureau. What this demonstrates essentially is that coastal zone management has many facets and there is a need for sectoral integration and coordination.

Prior to 1984, under the Fisheries Act of 1934, the erstwhile Department of Natural Resources had full jurisdiction over the exploitation, protection and management of coastal resources and environment. When E.O. 967 took effect in 1984, BFAR was transferred from the Ministry of Natural Resources (MNR) to the Ministry of Agriculture and Food, whose main concern was food production. The management of coastal and marine habitats was retained with the MNR. Presently, DENR implements its programs and mandates through its regional offices and staff bureaus (La Vina 1999).

On the other hand, BFAR as a line bureau under the DA has the mandate for fisheries production, development and management in line of its function under the Fisheries Code of 1998. But its fishery and coastal resources conservation and management functions is limited only to waters outside of the municipal waters as the latter is now within the jurisdiction of the local government units (LGUs) by virtue of LGC. BFAR may, however, recommend to or coordinate with the LGUs to conserve certain areas within their municipal waters. The fisheries production and development mandates of BFAR include the preparation and implementation of a Comprehensive National Fisheries Industry Development Plan; issuance of licenses; formulation and implementation of a Comprehensive Fishery Research and Development Program; and, recommendation of measures for the protection/enhancement of the fisheries industries<sup>9</sup>. Prior to the Fisheries

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<sup>9</sup> Art. 1, Sec. 65. "The Philippine Fisheries Code of 1998" (Republic Act 8550) – An act providing for the development, management and conservation of the fisheries and aquatic resources, integrating all laws pertinent thereto, and for other purposes.

Code of 1998, BFAR was administratively a staff bureau under DA but it functioned as a line agency where it performed policy-making, administrative functions and issued commercial fishing licenses. Other functions that are necessary for the fulfillment of its mandate were carried out by Bureau of Agricultural Statistics (BAS) for fisheries statistics, fisheries research by Bureau of Agricultural Research (BAR), and fisheries extension by DA regional offices and LGUs. By becoming a staff bureau, fisheries extension was weakened as this function was subsumed among the functions of the municipal agriculturist. When the Local Government Code was enacted, agriculture and fisheries extension was devolved to LGUs which had neither the skills nor the money to carry out this function (PRIMEX and ANZDEC 1996). This further weakened fisheries management in the country.

Institutional issues affecting BFAR and the fisheries sector was reviewed at the end of an Asian Development Bank-supported project in 1996. The Fisheries Sector Program review concluded that “The main institutional issues in the fisheries sector are the lack of a unified, central focus for fisheries management and the institutional weakness of existing agencies to cope with the demands and complexities of fisheries management” (PRIMEX and ANZDEC 1996:49). Hopes were placed on the new Fisheries Code to address these institutional weaknesses. The new Fisheries Code essentially reconstituted BFAR into a line agency, defined its functions and created an Undersecretary for Fisheries and Aquatic Resources in the DA whose main functions include setting policies and formulating standards for the effective and efficient operations of the fishing industry<sup>10</sup>. In recognition of the importance of research in the utilization, management and conservation of the country’s fishery resources, the new Code mandates the creation of a National Fisheries Research and Development Institute (NFRDI). This new institute will serve as the primary research arm of BFAR but will be part of the National Research and Development Network of the Department of Science and Technology (DOST). Among its functions is to implement and facilitate fisheries research in the country<sup>11</sup>. However, it might take several years before these institutional changes will materialize.

There are several other government agencies that are involved in more specific aspects of coastal resources management. These agencies can be broadly classified according to the nature of their primary involvement such as scientific research, law enforcement or coordination. Those involved in scientific research include the DOST-Philippine Council for Aquatic and Marine Resources Development (PCAMRD) and the state universities. On the other hand, agencies involved in enforcement include the Department of Interior and Local Government – Philippine National Police Maritime Command, which took over the police functions of the Philippine Coast Guard over municipal waters; and, the Philippine Coast guard, which enforces fisheries laws in the high seas, ensures maritime safety, and marine pollution laws. Agencies involve in institutional coordination on aspects relating to fisheries and coastal resources management include the Presidential Commission on Anti-Illegal Fishing and Marine Conservation, the Inter-Agency Task Force on Coastal Environment Protection, and Cabinet Committee on Marine Affairs

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<sup>10</sup> Art. L, Sec 63. “The Philippine Fisheries Code of 1998” (Republic Act 8550) – An act providing for the development, management and conservation of the fisheries and aquatic resources, integrating all laws pertinent thereto, and for other purposes.

<sup>11</sup> Art. 2, Sec 82-85. “ The Philippine Fisheries Code of 1998” (Republic Act 8550) – An act providing for the development, management and conservation of the fisheries and aquatic resources, integrating all laws pertinent thereto, and for other purposes.

headed by the Department of Foreign Affairs. It is not clear whether these agencies produced tangible outcomes or improved fisheries and coastal resources management as they do not even have a program to coordinate and rationalize existing efforts (La Vina 1999).

Another agency whose mandate affects CRM activities is the Public Estates Authority. It has jurisdiction over some of the most neglected but important parts of coastal management — the foreshore areas. Commonwealth Act 141 provides for foreshore leases. Sections 60 and 61 provide that foreshore lands shall be disposed of to private parties only by lease and not otherwise and only upon a declaration by the President, upon recommendation by the Secretary of the Department of Environment and Natural Resources, that such foreshore land is not necessary for public service. Only persons qualified to purchase or lease public lands for agricultural purposes may lease foreshore lands for a term of twenty-five years renewable for another twenty-five years. It is important to note that the lease contract must contain a provision that easements reserved by existing law or by laws thereafter enacted shall be respected. Under the Civil Code of the Philippines, easements of five meters from the high water line in coasts of agricultural lands and twenty meters in coasts of forestlands must be respected. These easements are frequently violated and foreshore leases that legally allow the use of the public foreshore land are a rarity.

Furthermore, the National Water Resources Board should also be involved especially in relation to the issues of water permits. The Water Code or PD 1067 makes it a requirement for anybody who appropriates water, including surface water in marine ecosystems, to have a water permit. Unfortunately, being merely a Board, it has to rely on the Department of Public Works and Highways and other entities to perform its functions in the field. As such, only the very large fishponds get these permits and the failure to secure them has not been a detriment to appropriation of waters for fisheries.

**Conclusion: The Future of CRM**

With these hopeful developments in both the experience of CRM practitioners and the institutional arrangements that engendered growth, what does the future hold for CRM? This question is especially relevant considering that the momentum will have to be carried through despite the inevitable drop in the levels of funding support for new CRM initiatives.

The Fisheries Code of 1998, having declared an integrated approach as policy, is definitely a help. This can continue to be cited whenever more support is necessary, whenever practitioners seem to be straying to other methods that are less democratic, or whenever there is doubt as to the intentions of the law.

The legislative mandate for FARMCs also plays a very important role in ensuring that CRM in the Philippines is bolstered. This is due to the integrative composition of the council itself, as specified by law. The challenge for this is to make this formal institution work by not allowing its practice to be limited to certain segments or interests in society. With this kind of legislation, any failure of CRM in future can certainly be attributed to citizens and fisherfolk failing to take advantage of these provisions in preserving their interests.

There is also a marked increase in the readiness of people for CRM. Despite the outpouring of donor support, the numerous projects, practitioners and areas covered, the painful truth is that fish catch is continuing to decline overall, the population of coastal

inhabitants continues to increase and put pressure on the resource, and the economic crisis is pushing with an invisible hand towards the exploitation of resources that are rent free.

This is why it has become imperative to revisit the constitutional provisions on exploitation of natural resources. While the new code already emphasizes preferential rights for municipal fisherfolks, it does not go the distance that the Department of Environment and Natural Resources has gone in terms of the exclusive ways of exploitation of natural resources<sup>12</sup>. Considering these provisions, the Constitution itself is the primary institutional arrangement that can ensure that CRM is implemented in the places donor funding has not reached. In requiring that large-scale exploitation of natural resources can only be by direct state utilization and joint venture, production sharing or co-production, the Constitution has virtually propelled the practice of CRM by small-scale fisherfolks. Commercial exploitation of other resources such as mines and timber have adopted this constitutional directive, through shifts from Timber License Agreements to Timber Production Sharing and Forest Management Agreements, from mining permits and licenses to Mineral Production Sharing Agreements. In these agreements, extraction fees paid to the state are based on harvest of public resources. Commercial fishing, however, remains an activity where the state only earns from license fees and where resource rent remains high. This benefits the license holder to the prejudice not only of small fisherfolks but of the State itself.

The next step, then, is to move towards making commercial fishery sharing agreements where the amount of catch is the basis of the share of the State, thus allowing the State to support its CRM activities. Whether this is by an amendment of the Fisheries Code or at least a hard look at the issuance of licenses based on the take of commercial fishing vessels, the direction towards lesser resource rent is an imperative.

On the institutional aspects, it is imperative for members of the bureaucracy to review areas of overlap between the mandates of DENR and BFAR as well as other related agencies and establish mechanisms to clarify their roles and jurisdiction. Continuous dialogue then among these agencies will provide opportunities for clearing up confusion and managing conflicting areas.

CRM in the Philippines has been written about by many, principally the implementors, who trumpet their important achievements. This kind of treatment is very necessary in order to give credence to continuation and expansion of application and to spur further donor interest and provide good examples to other communities.

However, the literature seems to be dominated by this type of papers and thus can easily be interpreted as self-serving. As such, independent studies of projects, especially reassessments of longer term post-project impacts are necessary. This will pave the way for designing new approaches that would take into consideration much longer timelines than project life spans. Constructive criticism of existing projects and identification of pitfalls from areas studied long after project closures will definitely inform the discourse on CRM technology much more than the chest-thumping variety of project implementors. A dispassionate look at the economics and the scale of expected results should also be taken. Are the results commensurate to the amount invested?

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<sup>12</sup> On 6 June 2001, the Secretary of the Department of Environment and Natural Resources issued Department Administrative Order 2001-17 prescribing guidelines for the delineation of municipal waters in the country as mandated in the Philippines Fisheries Code (R.A. 8550). This will pave the way for the preferential use of the municipal waters for marginal fisherfolks.

Practical steps to take into consideration include conferences that are intended to take a harder look at CRM and/or the establishment of a professional organization that peer reviews the end-results and longer term impacts of projects.

In looking to the future, there needs to be new responses, renewed donor interest and untapped fund sources in order to carry through with the gains of the successful CRM initiatives of the period studied. Replicability is a key issue and practitioners would need to take into account the effect on communities and the NGO sector of having gotten used to the availability of donor funding. Would it now be possible to build on the self-reliance supposedly engendered by previous organizing efforts to spread the benefits? Would a multi-level approach to transfer of technology work without a structured project and reliable funding mechanisms? It would be ideal if the success translates from fisher to fisher, leader to leader, group to group and then community-to-community sharing of experiences leading to correct CRM practices. This relies greatly on how the transferring entity perceives the impact of CRM in actual terms -- the greater the impact, the speedier the transfer.

The considerable wealth of materials, videos, publications and posters generated by the period of CRM funding needs to be harnessed to lengthen the interest among communities themselves. When funding dries out, it would be hard to expect NGO workers and conscientious civil servants to keep up their labor through mere goodwill.

Reliance on existing community arrangements, traditional leadership roles in barangays and other local institutions recognized by communities need to be the ones relied upon to bring CRM forward. As such, fresh organizing of PO's that might place a damper on traditional and existing local arrangements may need to be done with extreme caution, especially if it cannot be carried through for a long time.

To conclude, the power and the knowledge of undertaking CRM should slowly move into local institutions that need no artificial effort or private funding to gain recognition by the community. POs and FARMCs already set up are some types of more modern institutions that already have some level of recognition and credibility and should be taken full advantage of.

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