Proceedings:
Philippines-Indonesia Workshop on Community-Based Marine Sanctuaries

Cebu, Philippines & Manado, Indonesia
September 2000

Editors:
Miriam Balgos, Tom Bayer
Brian Crawford, Cesario Pagdilao
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PROCEEDINGS

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This undertaking was a collaborative effort between the Coastal Resources Center at the University of Rhode Island and the Philippine Council for Aquatic and Marine Research and Development of the Department of Science and Technology, in conjunction with the Coastal Resources Management Project-Philippines and Coastal Resources Management Project-Indonesia.

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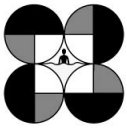

Philippine Council
for Aquatic and Marine
Research and Development

ACRONYMS

BAPPENAS	Indonesian National Development Planning Board
BEMO	Bohol Environment Management Offices
BFAR	Bureau of Fisheries and Aquatic Resources
BFARMC	Bureau of Fisheries and Aquatic Resources Management Council
CB-MS	Community-based marine sanctuary
CEP	Coastal Environment Program
CRC/URI	Coastal Resources Center/University of Rhode Island
CRM	Coastal resources management
CRMP	Coastal Resource Management Project
CRMP-Indonesia	Coastal Resources Management Project-Indonesia (locally known as Proyek Pesisir)
CVRP	Central Visayas Regional Project
DENR	Department of Environment and Natural Resources
FARMC	Fisheries and Aquatic Resources Management Councils
FRMP	Asian Development Bank-funded Fisheries Resource Management Project
FSP	Fisheries Sector Program
ICM	Integrated coastal management
LGCAMP	Lingayen Gulf Coastal Area Management Program
LMT	Local monitoring team
MCDP	Marine Conservation and Development Program
MOU	Memorandum of understanding
MPA	Marine protected area
MPP-EAS	Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas
MS	Marine sanctuary
NGO	Nongovernmental organization
NIPAS	National Integrated Protected Area System project
OBST	Olango Birds and Seascape Tour
OIWS	Olango Island Wildlife Sanctuary

PAMANA KA SA PILIPINAS	
	Pambansang Alyansa ng mga Maliliit na Mangingisda na Nangangalaga ng Karagatan at Sanktuaryo sa Pilipinas
PAMB	Protected Area Management Board
PCAMRD	Philippine Council for Aquatic and Marine Research and Development
POs	People's organizations
PTA	Philippine Tourism Authority
SALT	Sloping Agriculture Land Techniques
SOEC	Suba Olango Ecotourism Cooperative
SUCs	State colleges and universities
SUML	Silliman University Marine Laboratory
TWG	Technical Working Group
UNDP	United Nations Development Programme
UPMSI	University of the Philippines Marine Science Institute
USAID	United States Agency for International Development

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We gratefully appreciate the assistance of the PCAMRD staff in organizing the Philippine portion of the workshop. Our special thanks go to Eriberto Moreno and Alejandro Olandez, along with Ester Zaragoza, Adela Corpuz, Precious Samonte, Roselle Escavez, Eileen Redera, and other PCAMRD staff, for making all the necessary arrangements and providing secretariat services in Cebu. Our appreciation is also extended to the staff of CRMP-Philippines, especially Glen Gonzanga and Mike Ross, for organizing the field trip to Olango Island. We are also grateful for the inspiring remarks given during the opening of the workshop in Cebu by Rafael Guerrero of PCAMRD and Catherine Courtney of CRMP-Philippines. We would like to thank Cara Brown at the University of Rhode Island for her energy and good humor throughout the editing process.

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—The Editors

CHAPTER 1
INTRODUCTION

PROJECT OVERVIEW: PHILIPPINES AND INDONESIAN COMPONENTS

The project, titled *Fostering Marine Conservation in Indonesia: Developing Capacity to Implement Community-Based Marine Sanctuaries*, is being implemented by the Coastal Resources Center of the University of Rhode Island (CRC/URI) with funding from the David and Lucile Packard Foundation. The project aims to accomplish the following objectives:

- Document methodologies and develop materials for use in widespread adaptation of community-based marine sanctuary (CB-MS) technology to specific site conditions
- Build capacity of local institutions in North Sulawesi, Indonesia, to replicate models of successful CB-MSs by developing human resource capacity and providing supporting resource materials
- Replicate CB-MSs in selected North Sulawesi, Indonesia, communities through on-going programs at local institutions

In the Philippines, the project is being implemented in collaboration with the Philippine Council for Aquatic and Marine Research and Development (PCAMRD), the Coastal Resources Management Project (CRMP)-Philippines, the University of the Philippines Marine Science Institute (UPMSI), and the Silliman University Marine Laboratory (SUML). The local partners provided assistance in organizing the focus group discussions and the Philippines-Indonesia Workshop on Community-Based Marine Sanctuaries. In Indonesia, the project collaborators are the Indonesian Coastal Resources Management Project (CRMP-Indonesia–locally known as Proyek Pesisir), the Regional Development Planning Board, North Sulawesi Province and Minahasa Regency, and the Sam Ratulangi University's Coral Reef Information and Training Center.

The Philippine component of the project (Year 1) involves the documentation of experience and lessons learned from establishing CB-MSs in the Philippines through focus group discussions among experts on CB-MSs (Crawford et al. 2000). A study of various field sites empirically tested and validated hypothesized success factors (Pollnac 2000). The outputs from these two activities were presented and discussed in the Philippines-Indonesia Workshop, also aimed to develop cross-country comparisons and recommendations for the future of CB-MSs in both countries, and to produce a guidance document for replicating institutions and field work specific to the Indonesian context.

The Indonesian component (Years 2 and 3) aims to develop and disseminate materials for the replication of CB-MSs in Indonesia. These materials will be in the form of guides, training materials, public education aides, and databases and libraries on coastal communities, coral reefs, and governance in North Sulawesi. This component will also focus on capacity building to support the establishment of CB-MSs in other areas through workshops, training sessions, and providing material support to other institutions.

Objectives of the Workshop

The workshop had the following objectives in relation to CB-MSs:

- Share experience between Indonesia and the Philippines
- Discuss results of the Philippine focus group sessions and field research
- Discuss lessons learned concerning success at a given site and for promoting institutional replication in other villages
- Elaborate on guidance for field workers and replicating institutions
- Describe future challenges for the Philippines and North Sulawesi

Country Contexts

The Indonesian Context in North Sulawesi

Johnnes Tulungen (field program manager of Proyek Pesisir) gave an overview of the United States Agency for International Development (USAID)-supported activities in North Sulawesi Province being carried out in cooperation with the Regional Development Planning Board and other supporting institutions. This presentation is summarized below.

North Sulawesi (Sulawesi Utara) is one of three provinces selected by Proyek Pesisir (Figure 1) for the development and testing of decentralized, participatory and strengthened coastal resources management (CRM) approaches in Indonesia. In North Sulawesi, the project goals are to:

- Develop models of effective community-based CRM
- Scale-up effective models into a local CRM extension program

Models being developed and tested include:

- CB-MSs
- Village-level ordinances
- Village-level integrated management plans

The project began in 1997, when a rapid assessment of the Minahasa Regency of North Sulawesi Province was carried out to identify issues in the region and to provide inputs for selection of three community-based field sites. The Minahasa Regency was characterized as having:

- Marine resources in good condition
- High marine biodiversity
- Hilly coastlines with fringing reefs
- Coastal resource-dependent rural communities
- Diverse multi-ethnic immigrant communities

Three village-scale field sites were selected by the Provincial Working Group (Figure 2) based on a set of selected criteria developed and field visits to several candidate sites. Full-time field extension workers were assigned to the villages in October 1998, spending approximately three out of every four months living and working in the village.

Figure 1: Proyek Pesisir field sites in Indonesia

The coastal resource management threats and issues in the local villages included:

- Reef degradation from coral mining and destructive fishing techniques
- Bomb fishing
- Overfishing
- Poison fishing (cyanide)
- Crown-of-Thorns (CoTs) infestations
- Forest degradation
- Sedimentation
- Mangrove cutting and degradation
- Poor agricultural practices including slash-and-burn methods
- Capture of endangered species such as dugong and sea turtles
- Problems with fish marketing
- Flooding and coastal erosion
- Inadequate water supply
- Poor environmental sanitation
- High drop-out rates in schools

CB-MSs were chosen for testing in Indonesia because it had been proven to be an effective CRM approach in the Philippines and the South Pacific. If applied to the more than 500 coastal communities in North Sulawesi Province, and the more than 6,000 coastal villages in Indonesia, CB-MSs can make a significant contribution to increased reef fish production and coral reef protection. Local communities in North Sulawesi showed a high interest in the MS concept, and it offered a simple technique to start CRM planning. It is also a technique that can address multiple issues and achieve multiple objectives.

CB-MSs established in North Sulawesi can be defined as co-management regimes between local government and the community. They have been established by formal village ordinance, developed with widespread support and participation of the communities and local government, and are part of a larger village CRM plan. The establishment and implementation process involves five phases:

- Community entry and socialization
- Public education and community capacity building
- Community consultation and ordinance formulation
- Ordinance approval
- Implementation

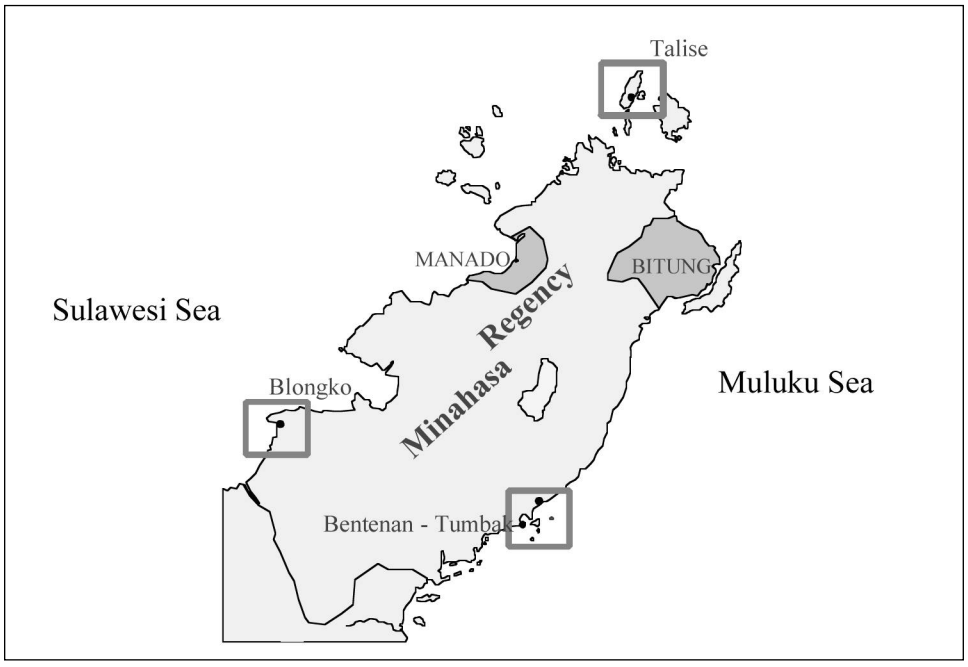

Figure 1.2: Village field sites in North Sulawesi Province

Important activities undertaken during the planning phases included:

- Cross visits to Philippine MS sites (e.g., Apo Island)
- Issue identification through participatory appraisals, technical studies, and systematic baseline surveys
- Coastal management training of community core groups and local government officials
- Planning workshops
- Implementation of early actions such as construction of latrines, water systems, and information centers to build community capacity and support
- Village meetings and informal stakeholder group discussions
- An all-village meeting for sanctuary ordinance approval

Prior to the formal approval of the MS by village ordinance, activities undertaken included:

- Continuing training of the core group and management committee
- Development and approval of a management plan
- Inauguration of the sanctuary by senior provincial officials
- Installation of signboards, boundary markers, and other community development and sanctuary management activities

In Blongko village, the MS established in October 1998 is approximately 10 hectares in size with a core zone extending 300 m along the reef and extends from the high tide mark of the shoreline to beyond the reef slope. It contains reef slope, crest and flat, seagrass, and mangrove habitat. It includes a rectangular-shaped no-take core zone with a surrounding buffer zone. The sanctuary in Talise, formally established in August 2000, has a 10-hectare core zone along with a 12-hectare buffer zone and consists of reef, seagrass, and mangrove habitat. Two other sanctuaries in development (Talise and Tumbak villages) are of similar size to the existing Talise sanctuary, but do not contain mangrove habitat.

Management committees at each of the villages are developing implementation action plans to be funded by a block grant to the community that will be approved by a regency-level (Kabupaten) task force. Implementation actions include the installation of informational signboards, boundary markers, and other non- marine sanctuary activities such as supplemental livelihood projects and community development projects. The Blongko MS has become a popular demonstration site and has been visited by Indonesians from several other provinces, the national capital, and many international visitors.

Preliminary results of monitoring from the Blongko MS show that coral cover has increased 30 percent over a two-year period compared to approximately 10 percent in adjacent village control sites. Target fish abundance increased seven-fold in the sanctuary compared to a two-fold increase in the control sites over the same two-year period. In a random sample of community households, 96 percent of respondents are familiar with rules governing the MS, and only 4 percent did not know anything at all about the rules. Additionally, 68 percent of respondents correctly knew one or more of the multiple purposes of a MS, but 32 percent of respondents did not know its purpose. Women tend to have lower participation rates in project activities and organizations and were more likely not to know the purpose of the MS. However, there was no difference in

perceptions of human impacts on the marine environment between male and female respondents in the community.

In summary, over a three-year period, several CB-MS models have been established in North Sulawesi which can show concrete benefits such as:

- Improvements in quality of life
- Changes in attitudes and behaviors towards marine resources
- Greater community control and empowerment
- Improvements in coral reef ecosystem conditions

Keys to the success of initiatives in these villages and principles that can be applied for replication elsewhere include:

- Field workers living full time in the community
- Cross visits to the other successful MS sites
- A highly participatory process that involves all stakeholders from the beginning including incorporation of local government in all phases
- Issues unrelated to the MS but of concern to the community were addressed through an early action community grant program to build trust and support
- The sanctuaries are part of a broader village CRM effort
- Use of systematic information for issue identification, monitoring, and model testing
- Large investments in local capacity building
- Involvement of the local university as technical consultants
- A long timeframe for development and support of the first model
- Continued engagement with the community towards implementation beyond the ordinance approval stage (1-2 years for planning, 2 years for implementation)
- The MS has been the pride of the community, as it is used as a demonstration and inspiration for others in the nation
- Serendipity in timing of reforms, where the regional and national policy climate is now more favorable to community-based approaches

Finally, a key goal over the next two years of the project in North Sulawesi is the establishment of an extension program whose mission is to promote and establish additional MSs in other coastal villages. The institutional, policy, and funding framework for such a program is now being developed.

GROUP DISCUSSION

Following the presentation, participants directed questions to Johnnes Tulungen and others involved in project activities in North Sulawesi.

To what extent was community participation used in the baseline surveys?

The project is using two parallel methods to conduct assessments. One approach uses systematic and scientific methods, since these are the first CB-MSs being attempted in the country. Hence, objective and credible information on their impacts is needed to convince decisionmakers to support and promote their more widespread replication as an effective approach to CRM in the nation. Parallel to the scientific effort, participatory appraisal techniques have also been used, including village transects, identification and assessment of local CRM issues and their causes and consequences through community and core group workshops, as well as community beach profiling and monitoring along erosion areas. Additionally, after training, the community members developed coral reef maps using the manta tow technique. These maps were then used as the basis for site selection of the MS.

Why was the site selected for the MS in Blongko only 30 percent coral cover? Shouldn't it be greater than 50 percent?

The initial recommendation of the technical team was for a site that had the highest coral cover in the village. However, the community rejected this site because it was too far away from the village to be observed well, was frequently visited by outside fishers and bomb fishers, and was a resting spot for fishers coming from fishing for pelagic species far offshore. Hence, another site was proposed that the community felt was practical. Site selection is a compromise between ecological and technical considerations and social and practical considerations. Based on technical inputs provided by the extension institution, the community should select the site.

Your monitoring data showed that women have a lower participation rate in project activities and organizations. Why?

Muslims are a large percentage of the residents of the coastal communities. It is difficult to get women to participate in some events. They are often not allowed by their husbands to attend training events alone. This is a cultural issue that is different in Indonesia compared to the Philippines. However, 48 percent of women respondents in our survey in Blongko have participated in project activities. While this is less than men (75 percent of men participate), we consider this very high–overall 61 percent of survey respondents (50 percent of survey respondents were female) say they have participated in project activities. Additionally, perception surveys of human impacts on marine resources and on some aspects of project and MS knowledge show no differences between male and female survey respondents. Therefore, while participation rates may be lower, we can infer that information is being transmitted, perhaps over dinner or in the bedroom at night before sleeping, and perception changes and awareness levels of women in the communities show small differences, if any, with men.

What percent of women should participate? What are the participation rates of women in Philippine projects?

If the ultimate goals and outcomes of the MS are being achieved, a participation rate of 48 percent by women, in spite of being lower than the participation rate of men, may be sufficient. Participation of women in project organizations in our sites has been quite low as shown by our survey results. We are working with extension workers on strategies to increase their participation in project organizations. This is why we are doing this type of interim monitoring. It helps us learn and provides us with the opportunity to adjust our approach to address this issue through adaptive management.

How is community membership in organizations decided?

The community decides who will be members in project organizations, (e.g., core group or early action implementation groups). The management committees are in the process of being formed, and the community makes the decision on membership of the management committee and sub-committees. We encourage the participation of women in these groups, but for cultural reasons it is hard for them to go outside the community for training. Those that have been trained have the most knowledge and are often then selected for organization membership.

Only 8 percent of the community are members of project organizations. This seems quite low. Why?

To clarify, it is 8 percent of the sample of survey respondents, and we cannot be sure it is the exact percentage of participants in project organizations in the community. These communities consist of total populations between 1,000-2,000 persons.

We should not expect all members or even a majority of the community to be members of a project organization. How do we know whether this is low or not?

We need to judge the level of membership in light of outcomes. If the sanctuary management is considered successful in terms of improved coral cover and fish abundance, perhaps the level of membership is adequate. The overall percent participation of survey respondents in community organizations may not be all that important. The monitoring data shows statistically significant differences in the participation rates of male and female survey respondents, and this is probably a more important piece of information for project managers to know.

What livelihood projects were promoted at the sites?

Livelihood projects have a provision of a revolving fund for individuals to get involved in seaweed farming, a very lucrative economic activity at the moment. We have also provided revolving funds to purchase engines for fishers with no motors (and to bomb fishers if they agree to stop bomb fishing). Extension activities on improved farming methods and experimentation with a crab-fattening project is ongoing. Previously, some study tours on opportunities for tourism development were conducted.

Funding implementation is important for sustainability and should be considered in the approval of local ordinances. How are local institutions financing implementation?

The village-level ordinances do not allocate funding; this is also true in Indonesia. (Village ordinances in Indonesia [*SK desa*] are more equivalent to *barangay* [*village*] resolutions in the Philippines, but have

weight of law behind them.) There are regular mechanisms where annual village requests for funding are made. Acquiring sanctuary implementation funds needs to follow this process. Additionally, we are experimenting with the concept of an implementation block grant approach for communities that have approved management plans and have submitted implementation proposals to the regency task force. We are currently working with provincial and regency institutions to determine the best ways to finance an extension program through policies and programs that promote scaling-up.

Scaling-up is not just a matter of increasing the number of CB-MSs. It also includes whether local government will support the sanctuaries with institutional and financial resources. How is this being done? There is not yet a local government institutional program supporting the establishment and implementation of MSs. This is being proposed since the experimental field sites have shown CB-MSs can work in the Indonesian context. Budgetary allocations have been requested to establish a program for the local people's assembly and national government by the Regional Development Planning Board of the Province and Regency. Additionally, the provincial working group and regency task force are working on the development of institutional mechanisms to formally establish an extension program–by law or through an administrative order.

Context and Progress for CB-MSs in the Philippines

Cesar Pagdilao (deputy executive director of the PCAMRD) gave an overview of the evolution and development of MSs in the Philippines over the last 20 years. He highlighted several foreign assistance projects that have supported field programs to establish MSs and CRM activities in various parts of the country. Mr. Pagdilao cited examples drawn from a paper by A.T. White, A. Salamanca, and C.A. Courtney (2000) titled *Experience with Coastal and Marine Protected Area Planning and Management in the Philippines.*

Coastal management has been practiced in the Philippines over the last two decades to try to stem the increasing tide of destruction to coastal habitats and the decline of fisheries. Unfortunately, after 20 years of practice, coastal resources continue to decline and deteriorate at alarming rates, although there are now many successes with small-scale MSs in different parts of the Philippines.

In recent years, two major forces have influenced the development of MSs in the Philippines. The first is a series of donor-assisted nongovernmental organizations (NGOs) and government projects that have resulted in a number of experiments in CRM, all of which have established marine protected areas of various kinds. Such projects, working with coastal communities, have focused on near-shore fisheries and coastal habitat management. The second major influence affecting the evolution of coastal management in the Philippines is the devolution of authority from central to local governments (municipal, city, and provincial). CRM has been supported and nurtured by a variety of institutions, including government, NGOs, people's organizations, research institutions, and by multilateral and bilateral donor organizations, employing different strategies and approaches.

The first so-called municipal marine park or fish sanctuary in the Philippines was established in 1974 on Sumilon Island, Cebu, under the guidance of Silliman University and its marine laboratory. Sumilon Island fish sanctuary is often cited in the Philippines and even internationally as the reason why coral reef fish

sanctuaries contribute to improved reef fisheries management (Russ and Alcala 1994). This initial experiment in reef management, that in fact stopped all fishing on a portion of the Sumilon Island reef for about 10 years, allowed researchers to collect substantial data on the effects of such management on the coral reef and its related fisheries. First, the coral reef substrate condition improved remarkably because all destructive fishing practices were halted. Living coral cover more than doubled to about 60 percent. Second, the fish abundance on the reef as measured in terms of individuals per 500 square meters more than tripled with the most significant increase among those fish targeted by fishers. Finally, and most importantly, the yearly fish catch to fishers fishing on the Sumilon Island reef, but not in the sanctuary, increased from about 14 tons per square kilometer to almost 36 tons per square kilometer. This unprecedented fish catch and large measurable increase convinced scientists, reef managers, and fishers alike that fish sanctuaries did indeed improve reef fisheries, and most importantly benefit the fishers dependent on the area.

Since 1974, many similar municipal marine fish sanctuaries or marine protected areas (MPAs) have been established in the Philippines following the lead of Sumilon Island. Several that are well managed and documented in terms of their benefits both for fisheries and tourism include Apo Island, Negros; Balicasag and Pamilacan Islands, Bohol; Mabini, Batangas; and San Salvador Island, Zambales (Buhat 1994; Russ and Alcala 1994). These examples have followed a general model whereby the portion of an island or mainland-based fringing coral reef is set aside in a “no-take” or “sanctuary” zone. The area outside of this no-take zone is called a traditional fishing zone, or in international terms, the buffer zone. Within the buffer zone, activities are usually allowed that do not damage the coral reef in any way (e.g., traditional fishing methods). Within the no-take or sanctuary zone, entry in the form of swimming and diving is normally permitted but without collection of any kind.

Recent studies have not only indicated the beneficial impacts of MSs on fishery yields and protecting the coral reef, but those participating in such management efforts gain in a variety of ways. One salient characteristic of successful MPA projects is the strong involvement of communities and the local government in the planning and enforcement process. This involvement builds the people’s confidence to manage their own resources and encourages long-lasting outcomes. Thus, success of MPAs in the Philippines hinges on two crucial actors: the (local and national) government and the stakeholder communities. In a survey of MPAs conducted by the national NGO, Haribon Foundation, approximately 439 MPAs of all kinds were reported (Pajaro et al. 1999). Although information on actual field management was limited, the study indicated that only 44 MPAs were fully enforced. The substantial increase in number of MPAs reported in 1999 may be attributed to the strong interests shown by the national government, NGOs, and funding institutions to promote MPAs as a means for coastal habitat and fisheries management in the 1990s. Although the total area covered by all these MPAs is not known, the 44 existing and enforced MPAs reported covering about 26,500 hectares (265 km^2) of mostly coral reef habitat. Thus, the cumulative impacts of the existing MPAs, assuming full implementation, would begin to contribute to the sustainability of coastal ecosystems.
The growth of MPAs in the Philippines can also be attributed to the innovations of CRM proliferating in the country. The hallmark of CRM in the Philippines is the effort to make it more community based, people oriented, and participatory. Thus, ongoing efforts are labeled as community-based CRM, integrated coastal resources management, or collaborative management. In this flurry of activity, MPAs, through their successful precursors–the fish sanctuaries and marine reserves–became a centerpiece in the involvement of communities and other stakeholders. MPAs are known to provide various benefits:

- Improved fishery yields (commercial and small scale)
- Tourism revenues
- Recreation
- Scientific research and education
- Biodiversity improvement
- Gene resources and diversity
- Species and ecosystem protection
- Ecological processes support (larval dispersal)
- Flood and erosion reduction
- Spiritual, cultural, and aesthetic values
- Future values

The success demonstrated by marine sanctuaries has encouraged the general acceptance of the approach. National legislation now promotes the use of this management measure for coastal habitats and fisheries. The National Integrated Protected Areas System (NIPAS) Law or RA 7586, and the Fisheries Code of 1998 both make provision for the implementation of MPAs through the means of marine reserves and fish sanctuaries. In addition, internationally-sponsored projects have included MPAs as a priority mechanism to restore degraded coastal and marine ecosystems within coastal management programs. Several large and foreign-assisted programs that have had a major influence on the development of coastal management practices, specifically MPAs, are:

- The Central Visayas Regional Project (CVRP), supported by a World Bank loan, was a pilot project in community-based rural development operating from 1984 to 1992. One of its components was watershed management, including near-shore fisheries development in four provinces. Interventions included mangrove reforestation, coral reef protection and MS establishment, artificial reef and fish-aggregating device installation, and mariculture. A major finding from a 1995 assessment of CVRP was that baseline information was insufficient to evaluate the results (SUML 1996). A key lesson learned was that baseline information and periodic monitoring is essential.
- The Marine Conservation and Development Program (MCDP) of Silliman University, supported by USAID, operated from 1984 through 1986 on three small islands in the Central Visayas. This relatively small project generated important examples for community-based coral reef management that exemplified the potential sustainable use of coral reef fisheries and habitat. The lessons from these three islands attest to the effective role communities can play in sustaining management efforts in spite of changes in government personnel and policies.
- The Lingayen Gulf Coastal Area Management Program (LGCAMP) operated from 1986 through 1992 as one of six CRM planning areas in Southeast Asia supported by USAID and the Association of Southeast Asian Nations (ASEAN) countries. This was the first attempt at integrated coastal management (ICM) in the Philippines, and addressed one large gulf in northern Luzon composed of two provinces and 20 municipalities. Since the area's most serious issue was over-fishing, the project first generated a comprehensive database which included reliable fisheries data to measure required fishing

effort reduction needs. The difficulties in implementing recommendations on fishing effort forced the planning process to steer toward education, generation of political will, and development of CRM plans at the municipal level. This program initiated an institutional arrangement to coordinate planning and implementation that, while not completely effective, is a model for the country.

- The Department of Agriculture (DA) implemented the Fisheries Sector Program (FSP) from 1991 to 1997 with support from the Asian Development Bank (FSP-PMO 1993). This large program attempted to generate and implement CRM plans in 12 bays known for their rich fisheries, management problems, and the growing poverty of coastal residents. The program tested the ability of the DA to incorporate community-based management as a mainstream approach to CRM. A primary strategy was to generate bay-wide CRM plans through the involvement of fishing communities by contracting NGOs to facilitate the planning and community organization processes. The results have raised awareness about the need for management, and in a few cases, actually improved fishery management in the bays. A lesson was the importance of establishing a simple set of baseline information on which evaluation and management decisions could be based. The 12 bay-wide projects, together with national policy efforts, helped establish 22 fish sanctuaries.
- The Coastal Environment Program (CEP) of the Department of Environment and Natural Resources (DENR) was started in 1993 and is implemented by the regional offices of DENR. The program emphasizes community participation and focuses on national MPAs. The CEP is the only national government program to promote management of the entire coastal environment, including water quality and shoreline land use, and is not solely focused on fisheries management. The CEP, if it is supported and can develop effective links with the Bureau of Fisheries and Aquatic Resources, has the potential to develop into a national coordinating and policy unit supporting ICM throughout the Philippines.
- The Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (MPP-EAS) is an on-going project of the United Nations Development Programme (UNDP) initiated in 1994. It is funded through the Global Environment Facility, which is a cooperative venture among national governments, the UNDP, and the World Bank (Chua 1998). The Philippines is one of 10 participating countries in Southeast Asia. MPP-EAS has focused on developing Batangas Bay as a model site for integrated coastal management. It is working with national and local government and promoting private sector partnerships to solve environment problems.
- The National Integrated Protected Area Project (NIPAP) is a project of the DENR funded by the European Union. It was initiated in 1995 with the overall objective of helping protect, conserve, and manage natural habitats and biodiversity in eight selected protected areas in the Philippines, two of these are marine (El Nido Marine Reserve and Malampaya Sound, Palawan).
- The Coastal Resource Management Project (CRMP), a project of the DENR and funded by USAID, was initiated in 1996 to provide technical assistance and training to local government units, coastal communities, national government agencies, and NGOs. A primary focus is to work with local government to establish coastal management as a basic service with active involvement of coastal communities and co-management regimes with national government agencies and other stakeholders. By 2000, the CRMP had initiated and improved coastal management in 29 municipalities covering about 700 km of coastline. This area represents the “learning areas” of the project. It is expanding its area of influence, in collaboration with local governments, provinces, DENR, other donors, and partners, to another 1,500 km of coastline.

- The Fisheries Resource Management Program (FRMP), supported by a large Asian Development Bank loan, started operation in 1998 and will continue to 2003 or beyond. It is being implemented through the DA, Bureau of Fisheries and Aquatic Resources and represents the most significant effort by the government to improve coastal management in the country. This program is a continuation of the Fisheries Sector Program that addressed the need for CRM in 12 bays. Eleven of the 12 original bays will be continued, and six new ones added to the field implementation. The focus of field implementation is empowering communities and local governments to manage their fisheries and other coastal resources. It is designed to build on past lessons of the FRMP and other projects. One notable change is that coastal resource assessments will be done together with community participation to start the planning and implementation process. This innovation is patterned after the CRMP upon which the FRMP is depending for some training, education, and other materials already created and available. The FRMP supports CRM as a basic service of local governments and is involved in furthering national policies for coastal management (FRMP 1999).

The legal and policy framework for the planning, establishing, and managing of MPAs in the Philippines is found in the Local Government Code of 1991, the NIPAS Act of 1992, and the Fisheries Code of 1998. Other laws that regulate certain activities or use of protected areas may also be applied depending on the need. At the local level, there are many municipal ordinances supporting MPA establishment. In the hierarchy of laws in the Philippines, the 1987 Constitution is the fundamental law of the land, while treaties, international agreements, republic acts, presidential proclamations, presidential decrees, and executive orders follow. Administrative orders issued by government agencies are the lowest in the hierarchy.

The evolution of coastal management legal support mechanisms in the Philippines has progressed from a predominantly open-access regime under national government to a more localized management framework (Abregana et al. 1996, for a legal perspective on local management of Philippine marine resources).

Establishing MPAs in the Philippines

There are two basic processes for establishing a MPA in the Philippines. The most common is through community involvement at the *barangay* level within a municipal or city government ordinance and support. The second, and much less common, is through the NIPAS Act that also involves community participation, but is facilitated by the national DENR. The two case studies below represent these two processes for establishing MPAs.

A typical MPA in the Philippines, as described above, has a no-take area (fish or marine sanctuary) surrounded by a limited or traditional use area (buffer zone or reserve). Successful MPAs such as Apo Island and San Salvador Island have this structure. The process of establishing MPAs, when done carefully over time, is usually nested in a broad community-based resource management program. This is often facilitated by an outside organization such as a local or national NGO or a local university as in the case of Silliman University and the formation of Apo Island reserve.

Establishing a MPA is normally not the only end goal in a CRM project, but is a good entry point for improving conservation and the wise use of coastal resources. Achieving improved CRM through

establishing MPAs always requires substantial involvement of communities with the strong support from local and sometimes national government. Thus, MPA planning and implementation normally proceeds along the path of a community-based coastal resource or fishery management process. Being the major physical manifestation of a community-based CRM initiative, MPAs often take a central role and become the main project with other activities taking on the sidelight.

The structure of activities undertaken to facilitate a community-based CRM program with a MPA component is not rigid but overlaps depending on how receptive the community and other stakeholders are and the needs and context of the area. The phases are:

- **Preparation** involves conceptualizing the project, arranging the administrative setup of the project and hiring the needed staff.
- **Integration** with the community involves introducing the project to stakeholders and collecting baseline data.
- **Community education** refers to activities that communicate the essence and objective of the project to local stakeholders. Marine ecology, in general, and the benefits of management are explained using formal and informal approaches to win community support.
- **Reserve establishment and management** is when a core group is formed to lead resource management activities and to spearhead reserve establishment. Community education at this stage does not cease, but is continued indefinitely.
- **Strengthening and supporting activities** come after the reserve is established and some form of management is already developed. Activities include refining management schemes, assisting the community in their daily management activities, broadening conservation strategies, strengthening networking, and linkage building.
- **Monitoring, evaluating, and phasing-out** prepares for the project end and turnover to the community. It also provides information and feedback on management.

In summary, it was noted that the long-term goal for the Philippines is to focus more on ICM approaches that are comprehensive and include MSs as an important tool for habitat management. It was stressed that MSs are really a microcosm of larger and more complex coastal management programs that are essential to address the multitude of issues in coastal areas. It was also stressed that multi-sector collaboration is required for ICM to succeed. This collaboration must include foreign donors as well as national agencies and organizations.

GROUP DISCUSSION

What caused the shift from central control in the 1980s to a more devolved process in the 1990s?

The most important factor was the passing of the Local Government Code of 1991 that essentially devolved most responsibility to local municipal, city, and provincial governments for management of coastal and marine resources out to 15 km from the shoreline. Before 1991, municipal governments were supposed to get approval from the national Bureau of Fisheries and Aquatic Resources (BFAR) before they could proceed with setting up marine sanctuaries (BFAR 1990). Despite this requirement, the marine sanctuaries of the 1980s were established because of the local communities' desire for increased control over their coral reef and fisheries resources.

What is the impact on the fishers by the large number of marine sanctuaries, since so many restrict access in many areas around the country?

The marine sanctuaries, in fact, only cover a small area. If the average size were 10 hectares, 400 marine sanctuaries would only protect 4,000 hectares of coral reef. This is a tiny fraction of the 27,000 square kilometers of coral reef in the Philippines. As the various successful projects have shown, when a small, 10-20 hectare area of coral reef is set aside as a no-fishing zone, the result is higher fish catches outside of the sanctuary area. This effect is now well documented from Sumilon Island and other similar experiments. It is also well known that fishers are mobile and a restriction on one kilometer of coral reef is not much inconvenience to them as long as there is sufficient fishing habitat in the vicinity of where they normally fish. Thus, the overall effect of the 400-plus MPAs in the Philippines should be higher fish catches for the local fishers. This effort, however, takes time before it can be appreciated by fishers whose day-to-day needs overshadow any future benefit for the MS. Thus, greater efforts are now focused on generating alternative or supplemental resources of income such as cooperative construction and operation of offshore fishing vessels for tuna and other pelagic fishes.

What is the nature of multi-sector collaboration in the Philippines for setting up and managing marine sanctuaries?

Although the level of government responsible for legalizing and supporting marine sanctuaries in the Philippines is the municipality or city, in reality, most sanctuaries are established with the assistance of marine research units of universities, NGOs, donor projects or some variation thereof. Most often, the municipal government does not have the capacity or know how to assist in the community preparation for a successful MS. Thus, in most model projects, there is some level of collaboration among different organizations together with the municipal or city government of concern.

How can the small community-based sanctuaries be scaled-up to more integrated coastal management programs?

This is beginning to occur as municipal governments develop CRM plans for their whole area of municipal jurisdiction to 15 km offshore. Such plans often include the following:

- Allocation of budget for CRM projects
- Support for *barangay*-level organizations for CRM such as the Fisheries and Aquatic Resources Management Councils

- Planning and supporting a host of CRM best practices such as marine sanctuaries, law enforcement units, zoning schemes for municipal waters, alternative and environmentally-friendly livelihood projects, determination of municipal water boundaries, shoreline land use plans and others

CHAPTER 2
THE IDEAS AND THEORY BEHIND COMMUNITY-BASED MARINE SANCTUARIES

SUMMARY/ABSTRACT OF PANELIST PRESENTATIONS

THE THEORY AND ECOLOGICAL FUNCTIONS OF MARINE SANCTUARIES (MSS)

Presented by Alan White

The very high natural productivity of tropical coastal ecosystems is a strong justification for their management. They rival tropical rainforests in natural production (figure 2.1).

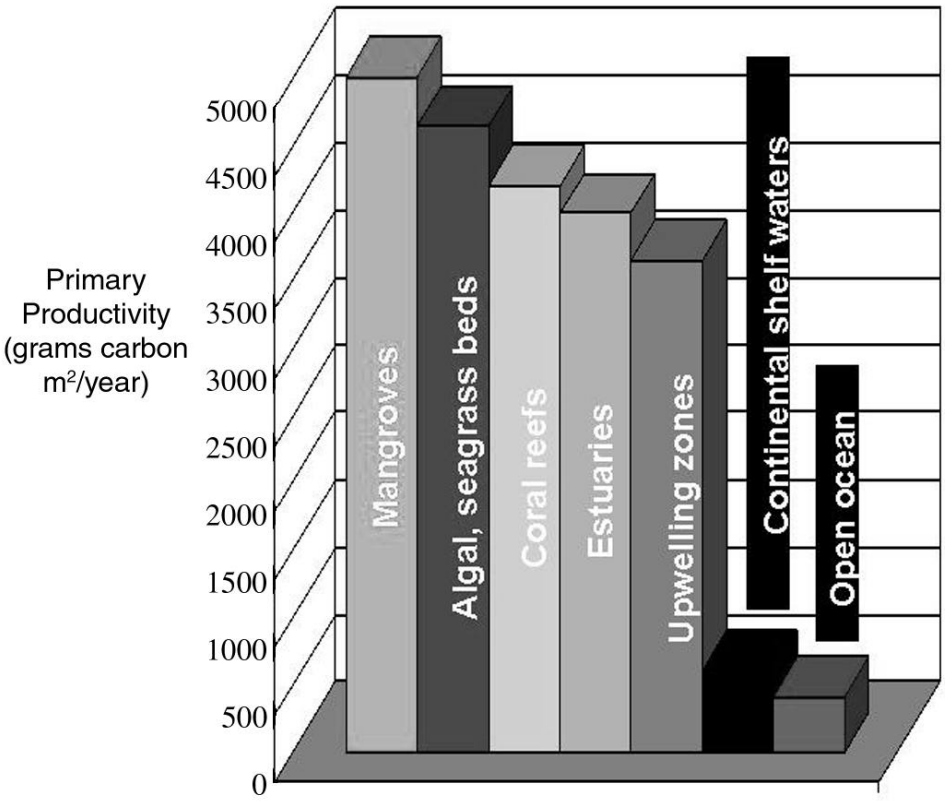

Figure 2.1: Primary productivity of some major marine communities

Source: Whittaker 1975

This natural productivity translates into useable products such as fish. The high natural fish yields of up to 30 tons per square kilometer per year from coral reefs, for example, need to be maintained through proper management. Otherwise, without proper management, much is lost as shown in Figure 2.2.

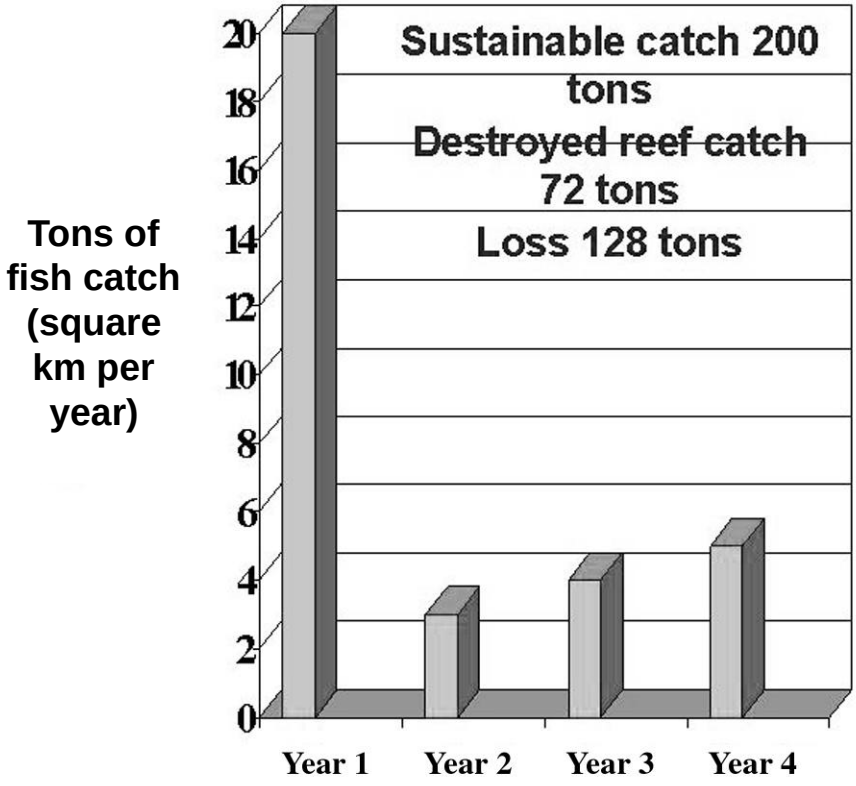

Figure 2.2: Fish yield decline and loss on destroyed reefs (10 years)

Source: White and Cruz-Trinidad

There are also basic requirements for managing coral reef ecosystems that are expected in the environment. These include clear water, temperature, salinity, and others as shown in Figure 2.3.

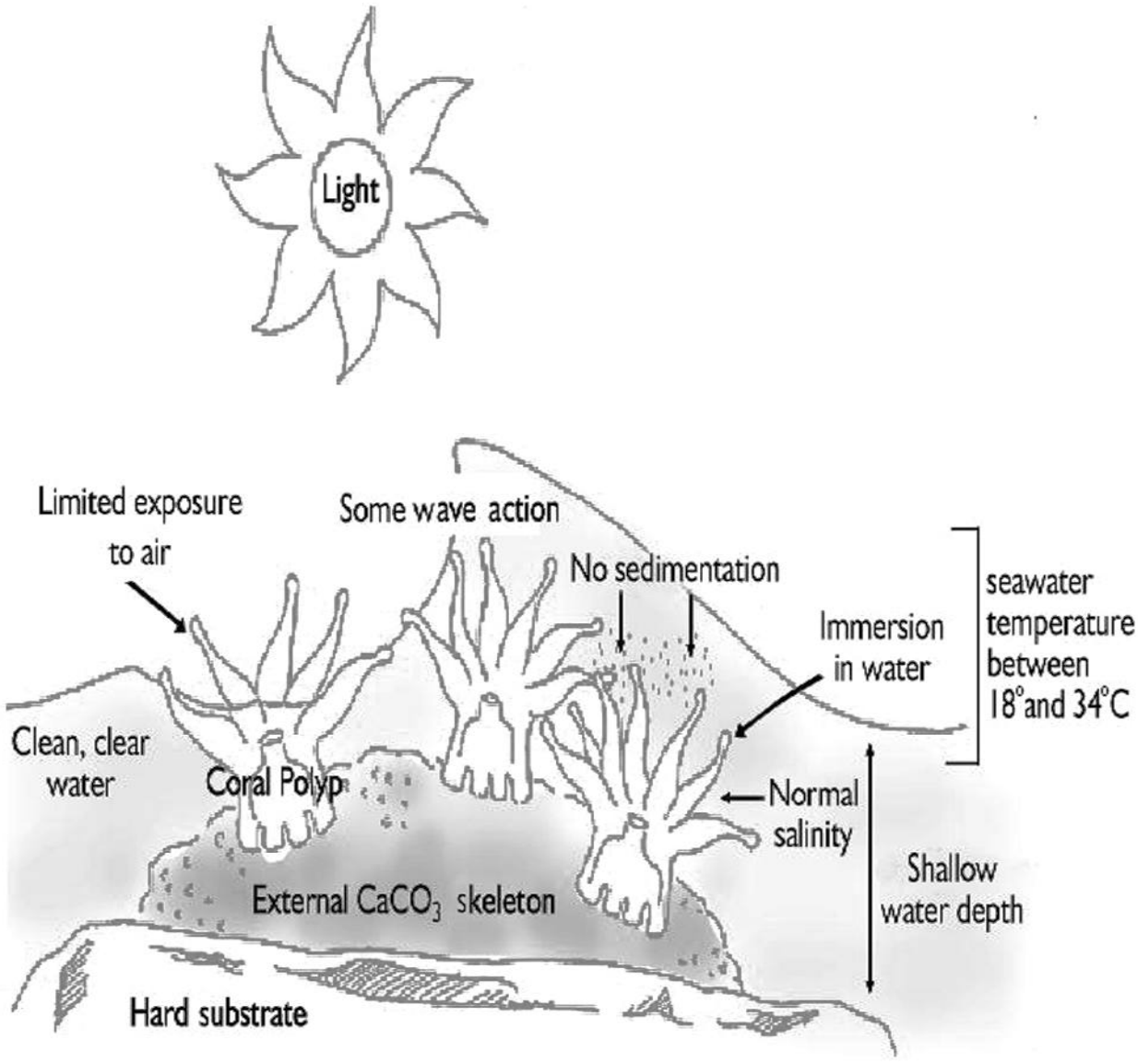

Figure 2.3: Requirements for healthy coral reef growth

Source: White 1987a

The typical design for a MS that has evolved in the Philippines is based on the experiment with Sumilon Island by Silliman University. The basic design, shown in Figure 2.4, sets aside a portion of the coral reef in a core, or no-take/no-fishing zone.

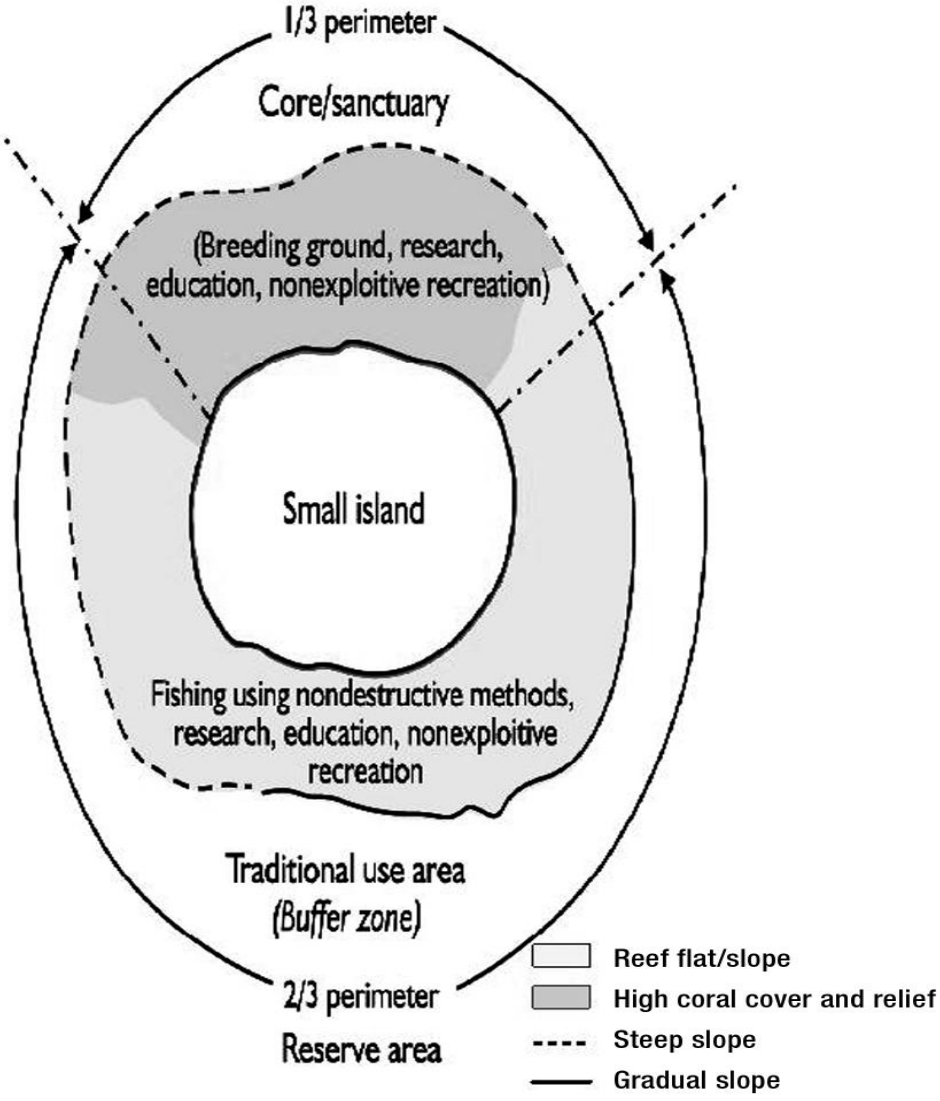

Figure 2.4: Example of reserve system with core sanctuary and "traditional use" buffer areas applied to islands
Source: White 1998a

Why do we need these MSs?

MSs are important because overfishing is occurring in most nearshore tropical reef habitats as fishing effort increases. Consequently, fish catch and fish recruitment to natural stocks are declining as illustrated in Figure 2.5.

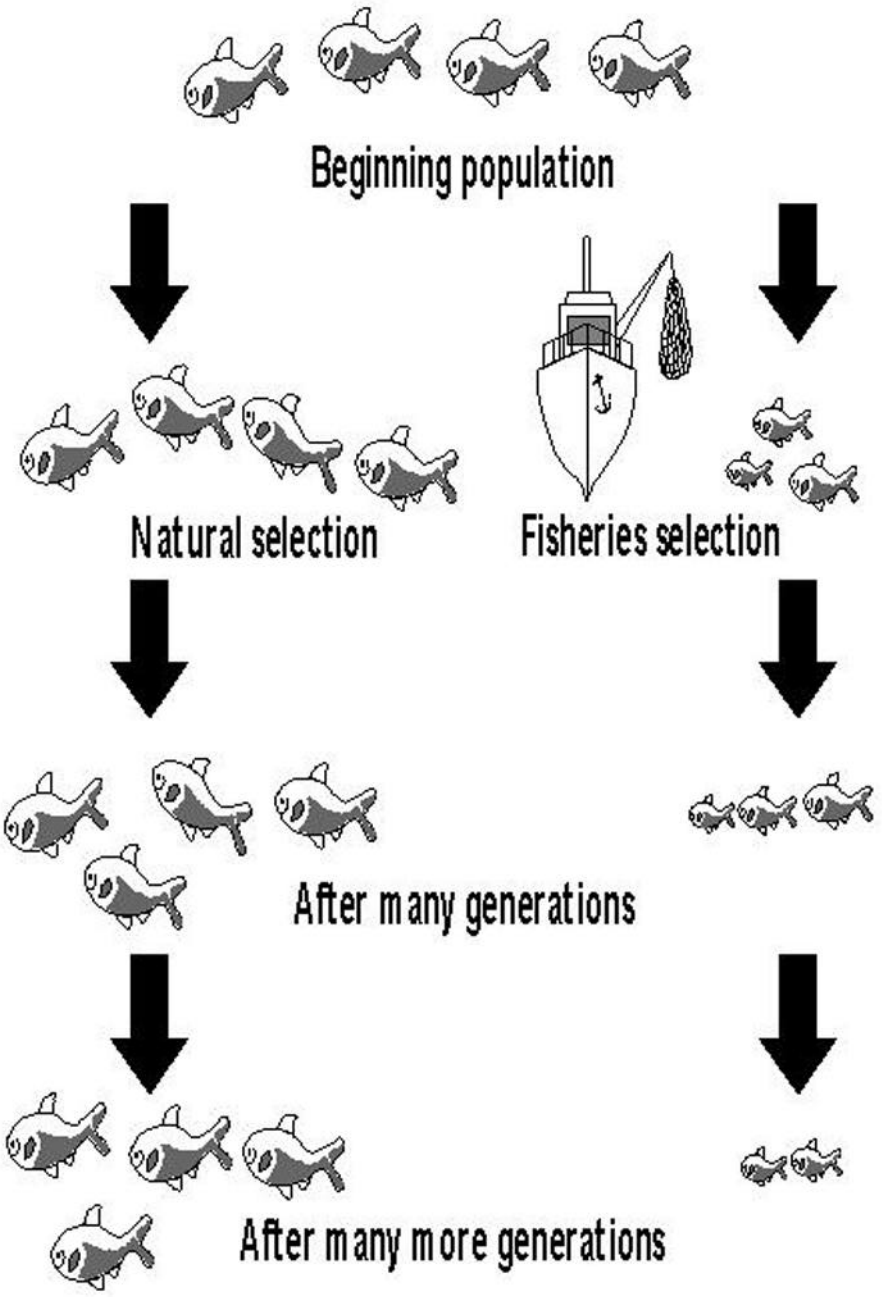

Figure 2.5: Natural vs. fisheries selection

Source: White and Cruz-Trinidad

Why not just decrease fishing effort in general, instead of setting up MSs?

The reason is that many fish have to live to a certain age before they reproduce and provide large numbers of eggs back into the ocean system. If fish such as grouper, snapper, and other important food fish are not allowed to live to maturity, they never reproduce. Sanctuaries are needed to allow natural selection in the wild, without pressures from continued fishing (Figure 2.6).

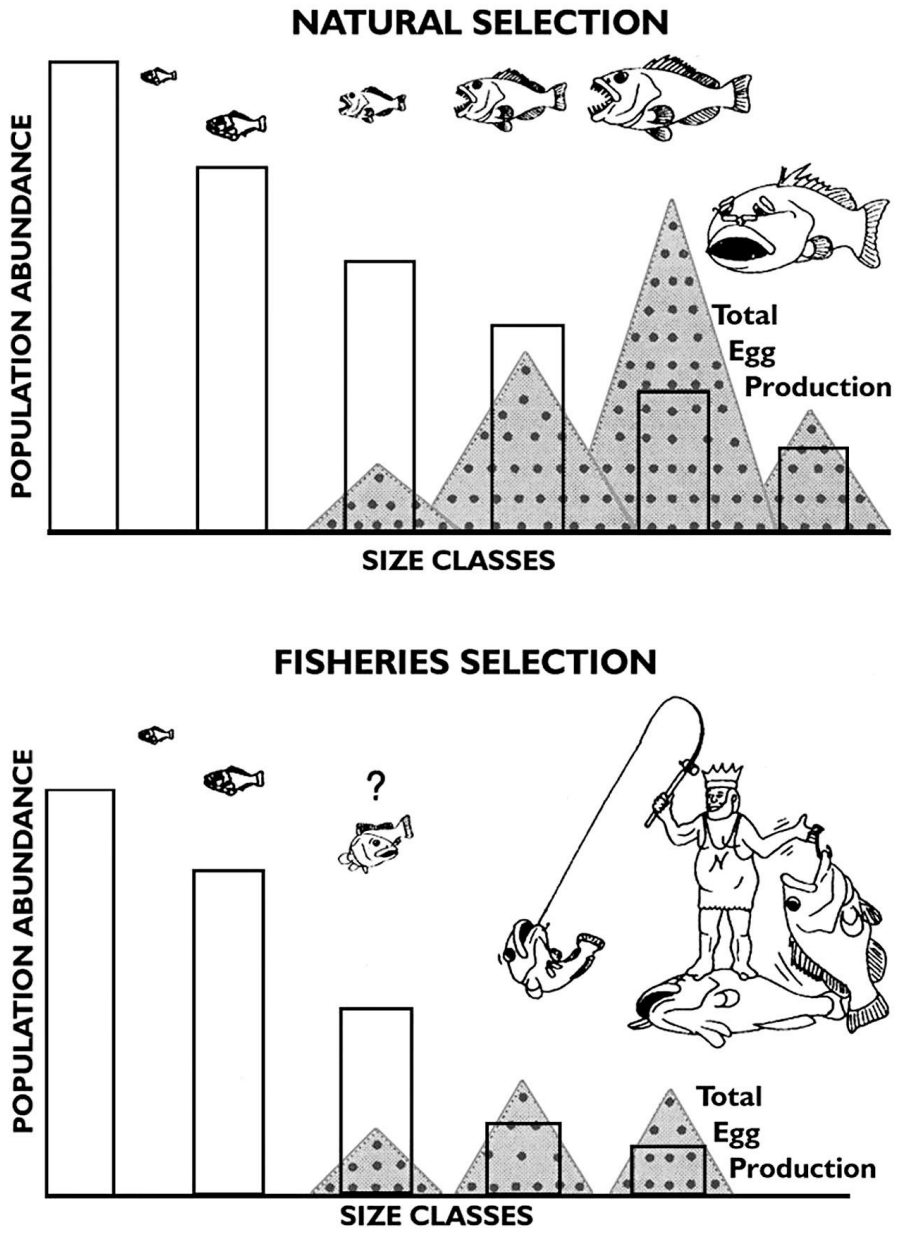

Figure 2.6: Effects of natural vs. fishing mortality on population size structure and total egg production from coral reef fish

Source: Bohnsack 1990

In addition to the export of fish larvae and juveniles, sanctuaries export fish biomass as fish stocks have been allowed to grow to maturity and naturally migrate to areas outside of home reefs. This effect is the crux of why MSs are important for the improved management of coral reef habitats and fish stocks (Figure 2.7).

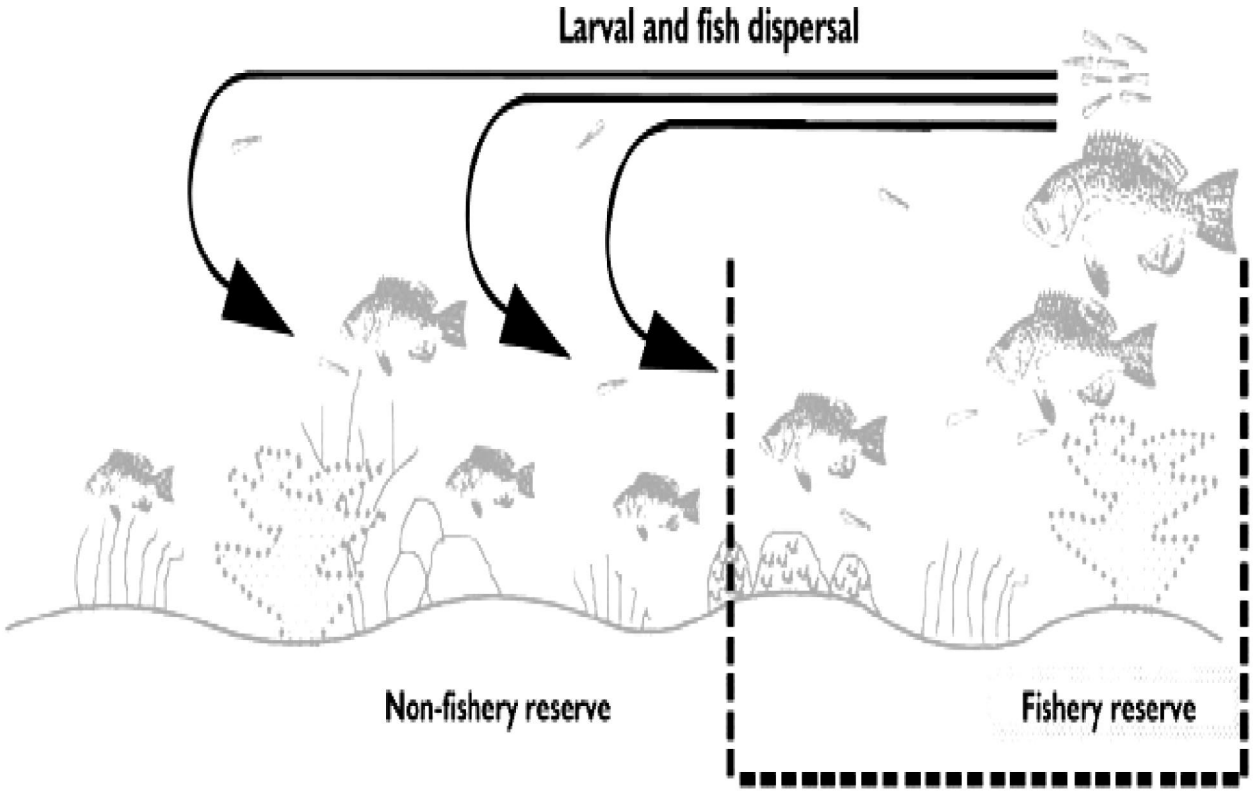

Figure 2.7: Dispersal of fish and larvae from a marine reserve

Source: Bohnsack 1990

Is there real evidence from existing MSs that positive results such as increased habitat quality, fish abundance, and fish diversity do occur?

Yes, this is shown in Figure 2.8. Three well-managed MSs (Balicasag, Pamilacan, and Sumilon Islands) all have high fish density compared to six other unmanaged coral reefs in the vicinity that have very low fish density. It can be noted that fish diversity (species richness) is also higher in the three MSs and reefs under management compared to those without management.

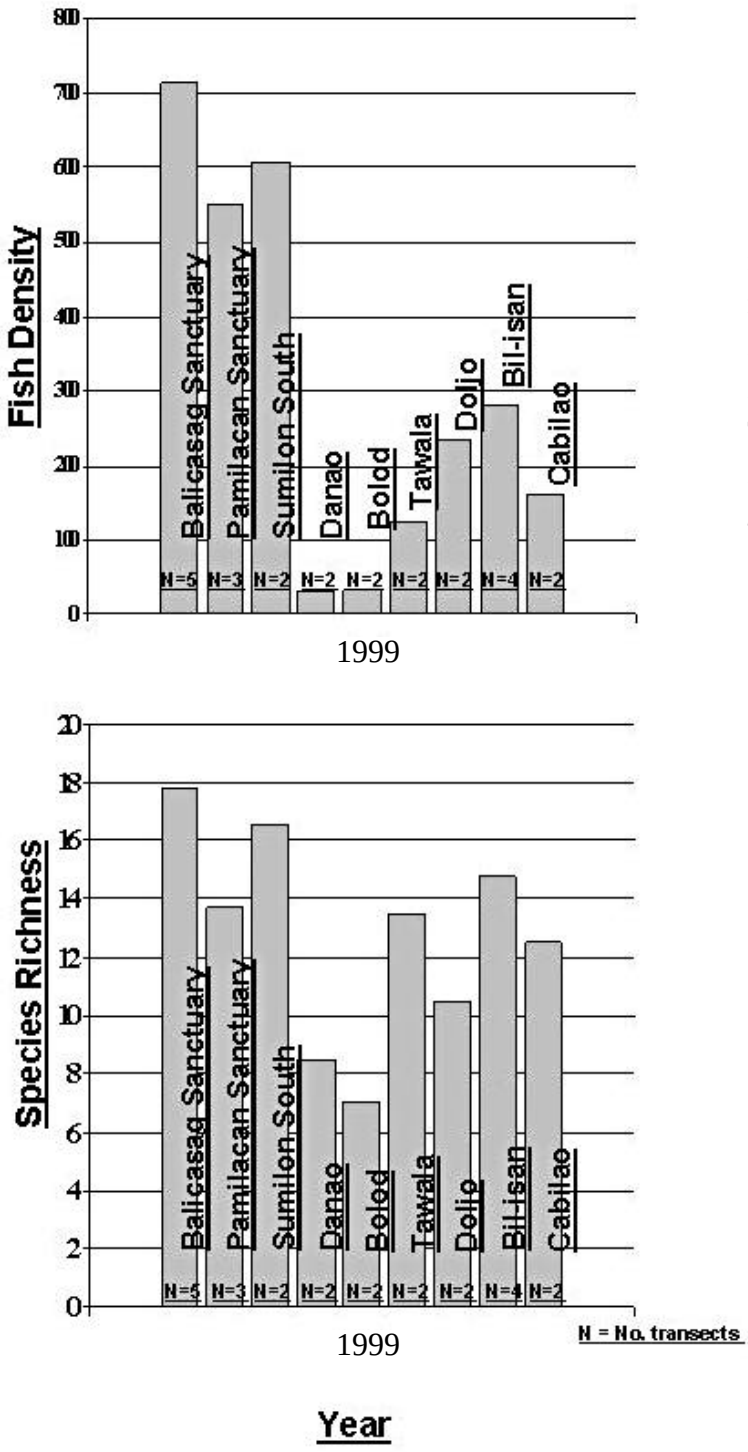

Figure 2.8: Mean fish species richness and individual density per 500 m^2 for target reef species observed in Balicasag, Pamilacan, Sumilon, Danao (Alona Beach), Bolod, Tawala, Doljo, Bil-isan, and Cabilao May 1999

Source: White 1999

The ultimate benefit from a well-managed MS is an increase in fish yield outside of the no-fishing zone of the sanctuary. The increase in fish catch to fishers fishing outside the area of Sumilon and Apo islands is shown in Figure 2.9. It is noted that the fish yield from Sumilon Island decreased in 1984 after sanctuary management stopped (because of local political problems).

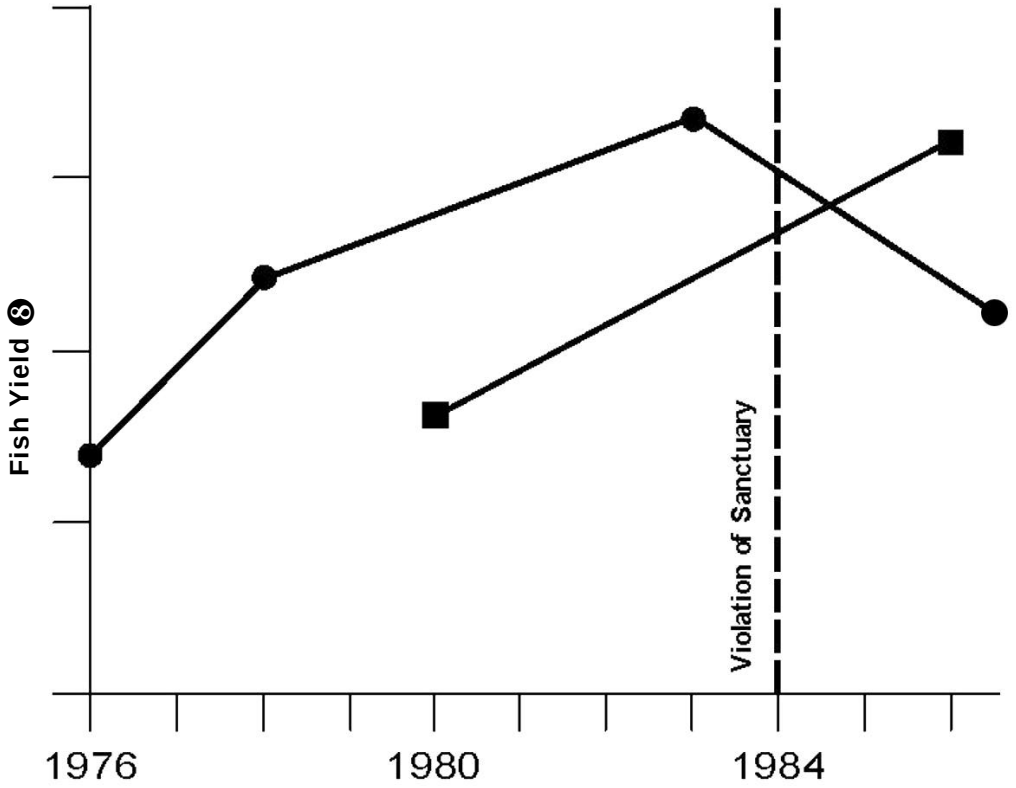

Figure 2.9: Change in fish yields on two island reefs resulting from management
Source: White 1999

In summary, the key environmental considerations in setting up effective MSs are to:

Select an area with a reasonably good habitat quality in terms of coral cover and other common measures of quality and where pollution is not a threat (Figure 2.10)

Select an area where the habitat is conductive to breeding and reproduction for all kinds of marine life

Select an area that is overall a “sink” for marine plankton so that the diversity and abundance of fishes and invertebrates will tend to build-up in the sanctuary and eventually become a source for export to areas outside the sanctuary

Select an area that is not overly vulnerable to destruction from waves, storms, other natural events, or potential threats from human activities that could minimize the effectiveness of the area as a sanctuary

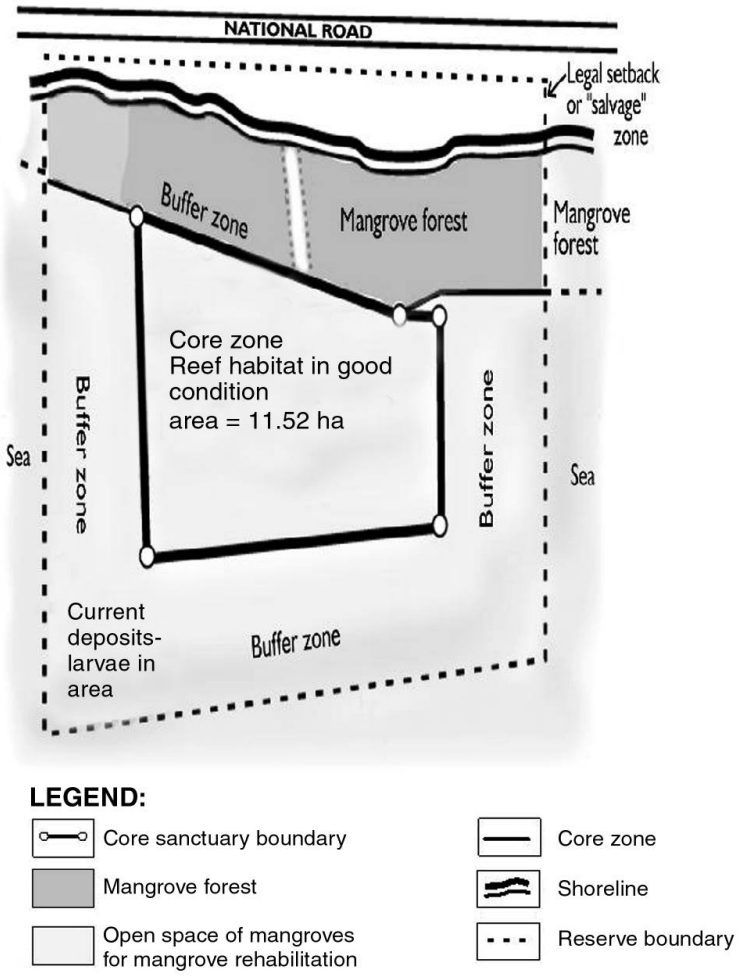

Figure 2.10: The “box and border” model where a sanctuary is established along the coastline and a buffer zone of a certain width is created around its perimeter to form the “reserve area”

Source: DENR et al 2000

Benefits and Success Measures for CB-MSs

Presented by Miriam Balgos.

The focus groups reviewed a list of success factors related to the establishment and implementation of CB-MSs that was put together based on literature (Crawford et al. 2000). They added substantially to the list which was summarized as follows:

Marine Conservation

- Increased fish abundance and diversity
- Stable or improved coral cover
- Global impact of rehabilitation
- Export of larval recruits
- Biodiversity conservation
- Enhancement of adjacent areas

Community (Socioeconomic)

- Increased fish catch
- Perceived ecological benefits by community
- Perceived improved quality of life
- Alternative/supplemental livelihood
- Cleaner overall community environment
- Greater community understanding of resources value
- Creation of environmental education sites
- Demonstration sites established
- Increase in quality of life measures, e.g., household income
- Spiritual benefits
- Intergenerational benefits

Community (Governance)

- Functional co-management
- Enhanced self-governance, self-esteem, and community empowerment
- High level of community support
- Improvement of local government
- Competence and accountability of organizations involved

Broader Government and Public Participation

- CB-MSs mean to address broader CRM issues
- CB-MSs are cost-effective and sustainable

- Neighboring communities are motivated to develop sanctuaries based on the success of other sites
- Community leaders serve as motivators and trainers for neighboring communities

The focus groups emphasized the importance of:

- Strong leadership
- The legitimacy of the community facilitator
- The adaptive approach to management
- The accreditation of People's Organization (POs) involved in CB-MSs
- The empowerment of the community from the start of the process
- The involvement of the community in monitoring and evaluation
- The use of scientific input in site selection
- The proximity of the initiating organization to the community
- The existence of legal means for the implementation of the CB-MSs
- The replication of the CB-MSs in neighboring communities
- The adoption and institutionalization of local conservation strategies including provisions for budget and staff dedicated to the project

Outcome of Small Group Workshops

Ecological Theory and MS Definition (Group 1)

What is a MS?

- A no-take area with boundaries that may include more than one habitat, if appropriate. Preferably, the sanctuary will include a buffer zone or other zones, if acceptable to the community.
- A MS must have a coral reef area, but is not limited to reef areas. It may include seagrasses and other types of habitat.

How do they function ecologically?

- Act as breeding, spawning, and nursery grounds for marine organisms and fishes
- Disperse larvae and biomass to other reefs
- Serve as a genetic bank for marine organisms
- Provide shoreline protection from wave action which may cause erosion
- Generate sand for beaches

What are the main ecological and marine conservation benefits?

- Empowers people towards marine conservation and management
- Signals the beginning of a "blue revolution" (more marine conservation and management-oriented community and government program objectives)

- Provides an excellent area to carry out research
- Can become an important tourism destination
- Increased fish yields in reef areas surrounding the sanctuary
- Achieves other ecological benefits such as preservation of buffer areas for protection against flooding and erosion

What type of coral reef or ecosystem is best for a MS?

- The best type of reef is a "sink" and a breeding area. A sink reef is an area of reef that receives larvae and juvenile marine organisms that are spawned in other locations and settle on the reef. The sink becomes a source when the productivity increases and there is export or "spill-over." The sink effect is also dependent on local currents and the predominant movement of water into the area and capacity of the area to support breeding and spawning as well.
- The MS must have good coral cover. There is no minimum percent of coral cover required. A higher percent of coral cover is preferred, but must be weighted with other ecological, social, and practical criteria.

What are the minimum and maximum or rule-of-thumb practical sizes for sites?

- This depends on the decision of the community after management options are presented. The options should be based on technical and/or scientific studies that show the benefits and costs of small- and large-sized MSs.
- No recommendation should be made regarding minimum or maximum sizes, although generally most marine scientists feel areas larger than 10 hectares are best. Recommendations may pre-empt the decision on the size of the MS.
- Good reefs are specifically recommended; however, the preference of the community must be considered. If the community does not want the area, the MS may not be successful. A less ideal reef area near the community may be chosen as a MS because it can be protected more effectively than a distant, better-quality reef.

Coastal Communities and Participation (Group 2)

What do we mean by "community based" in the context of establishing and implementing CB-MSs?

Community based is geo-political in scope. It is usually focused on the smallest unit of government, or a single settlement area or village. In the Philippines, this is the *barangay* level, and in Indonesia, it is the *desa* level. Key agencies at the next level of government can also be included in the definition of community for community-based management (Philippines–municipality, Indonesia–Kabupaten).

What is a coastal community?

A coastal community includes the direct users of the resource as well as other stakeholders within a geo-political setting, usually the smallest unit of government, i.e., *barangay* or *desa* level.

What do we mean by participation?

- Participation means the involvement of the community and key stakeholders from the beginning in discussing issues and causes in coastal management planning to the point of implementation and monitoring. Participation also implies the ability to make decisions–not just be present.
- The participants are the core resource management group, formal and informal leaders, key stakeholders (including private/business operators, direct users, and consumers) and other members of the community.

What forms of participation are best for CB-MSs?

A multi-sectoral core group is the first step in forming a community-based management regime. This core group along with other members of the community can participate in data gathering, surveys, planning, implementation, and monitoring.

How much participation is needed to ensure success, and how do you know when it has been successful?

Data gathering by as many community members as possible is important. The core group, once selected and supported by the wider community, should be active in decisionmaking, implementation, and monitoring. Sub-groups can be elected for performing various chores and duties related to planning, implementation, and monitoring.

At what stages in the process is participation needed, and how does it vary depending on where you are within the process?

- Preparation and planning
  - The preparation and planning involve the core group and technical assistants for resource assessments and mapping.
  - The core group is a multi-sectoral group able to represent the sentiments of the people. The members of the group have the capability to influence the sectors they represent.
- Adoption/ordinance proposal and endorsement
  - The broader community must be involved in making the decision to adopt the plan or ordinance. This can be led by the core group.
- Management and monitoring
  - The expanded core group must include other stakeholders and technical assistants from the community or outside.

Why is the lack of participation one of the major reasons for program failure?

Weak participation is a basis for problems because of the potential for:

- Different understanding and interpretation of objectives, plan, and activities
- A lack of credibility of the core group
- Political motivations being more important than setting up a MS

- Socioeconomic differences which affect who participates and dominates the decisionmaking process
- A true consensus is not reached, thus community support is weak
- No constituency built to weather difficult political changes and times
- True concerns of the community not being resolved

Benefits of a CB-MS (Group 3)

What is the purpose of a CB-MS, and what primary socioeconomic, community, and broader public benefits do they provide?

- Ecological: Fish reproduction, abundance, and production, as well as protection and rehabilitation of habitats and biodiversity. The overall protection a sanctuary provides allows the ecosystem to return to normal so all species and their breeding and reproduction are benefited.
- Socioeconomic: Improved income from increased fish catch and enhanced tourism possibilities. The community gains a greater understanding and capability through the responsibility of locally-managed projects with the assistance of local government. Such projects can serve as showcases and research sites, and build pride among community members.
- Socio-political: Empowerment, active participation in CB-MSs, and equitable access to resources through participation and successful management.

To what extent can benefits be quantified in terms of economic, ecological, or social benefits?

In general, all benefits can be measured and quantified. They need to emphasize the benefits of a CB-MS project. Most benefits can also be translated into economic terms so they are easily understood by the government and communities involved. Decisionmakers respond to economic return and, if presented in the right format, can then think in terms of investment to improve a degraded system that will provide a certain return over time.

- Ecological benefits can and should be quantified
  - Total live coral cover can increase 5-10 percent annually under good conditions
  - Fish abundance inside the sanctuary can increase 50-70 percent annually, depending on what the baseline is and how degraded a site was originally
- After two years
  - Income can increase from improved fish catch or from tourism development (more equitable, broader distribution)
  - Fish catch in some sites increased from 2 kg/day to 5 kg/day
  - Tourism revenue from fees in some sites has been as high as P100,000/year (US$2,000)
  - Reduction of illegal practices occurs in and surrounding the sanctuary if there is widespread community support, and it is well managed and enforced
  - Increased participation in decisionmaking at the community level generally results from a well-implemented participatory planning and management process

Why should CB-MSs be promoted as a CRM intervention as opposed to other kinds of interventions?

- It can be cheaper and more effective than top-down approaches
- It is a good entry point for other broader and more complex CRM issues
- It addresses habitat conservation and resource management, and at the same time, it can provide economic benefits to the community–a win-win situation
- It provides a way to educate people about marine ecology, conservation, and resources management
- It results in more responsibility by the community to care for and manage the resource–promotes a stewardship ethic

What social, economic, and ecological problems do CB-MSs help solve?

- Social problems solved by CB-MSs:
  - Poor access to basic services
  - Inaccessible training opportunities
  - Lack of community participation in resource management
  - Poor linkages within and outside the community
  - Lack of empowerment
  - Lack of awareness about resources, environment, and social dynamics of the community
- Economic problems solved by CB-MSs:
  - Lack of other sources of livelihood
  - Poor catch from fishing
  - Localized poverty
- Ecological problems solved by CB-MSs:
  - Destructive/illegal fishing
  - Lack of resource monitoring
  - Weak law enforcement leading to resource depletion
  - Improper waste/garbage disposal
  - Degraded ecosystems

Given that there is a perceived high number of unsuccessful sites, why is this occurring, and what are the key issues to increasing the success rate in the future?

- Failure results during the sanctuary planning phase due to:
  - Not using a community-based approach
  - Not allowing for a broad base of participation
  - Lack of baseline information collection for monitoring and evaluation

  - No provision for monitoring and evaluation
  - No management plan prepared before or after its legal establishment
  - A general lack of process and time allowed for consensus building
- Failure during the implementation phase is often due to:
  - Too much emphasis on output results (e.g., ordinance signed, number of persons trained) rather than process results (high level of consensus achieved among all community stakeholder groups) and outcomes (community empowerment, increased fish catches, improved coral reef condition)
  - Too much emphasis on preparation and planning for ordinance approval and forgetting about management, maintenance, and other sustaining activities
  - Conflict of interests among user groups with different objectives, such as fishers versus tourism operators
  - No clear definition of roles and responsibilities for the community, management committee, and external supporting institutions
  - Lack of promotion within the community and local government, and with groups and institutions outside the community

Summary of Plenary Discussions

Group Discussion: Theory Behind CB-MSs

Several questions concerning selection of sites and criteria used raised the following important points:

- The role of community is very important in the process of selecting sanctuary sites and developing the management plan.
- Options on locating a sanctuary should be presented to the community for discussion. It should be decided in an open forum that includes those with more scientific knowledge than community members so that all options are considered.
- Sites should be selected that will serve as a demonstration of how to implement a sanctuary in the eyes of both the community and the outside facilitating group so that all concerned will have pride in the project and its outcomes.
- Coral cover on reefs should not be the only criteria for selecting a site. It was suggested that a more robust set of criteria be used that includes a variety of factors affecting ecological and practical success such as: “sink” vs. “source” in terms of ocean currents; ability of the particular site to regenerate if it has been damaged in the past; the lack of serious pollution threats that could undermine any good efforts; and finally, the full endorsement of the community in terms of their preference for what area will be set aside as a sanctuary with no fishing.

How far should NGOs, academia, or government go in pushing MSs on communities?

Sanctuary establishment is a two-way street. On the one hand, we would not have MSs at all if the NGOs, academia (universities), and government had developed and pursued the concept of the MS as a management tool. On the other hand, we would not have many successful MSs being managed by communities if they were not fully endorsed and beneficial to the community. Any given situation may require an increased or decreased role of the outside facilitating agency or organization in the realization of a good MS. This is why the concept of "co-management" is applicable in most cases; it usually requires the collaboration of community with government or an NGO to make MSs sustainable.

Can sanctuaries be set up for management other than general fisheries, such as open-water fisheries, giant clams, sea urchins, or other specific purposes?

Yes, they can have any number of outcomes, many of which are not mutually exclusive. That is, a MS set up for a general fisheries or tourism purpose can also be used for specific species if appropriate, and vice versa.

CHAPTER 3
PROCESS AND SUCCESS FACTORS

SUMMARY/ABSTRACT OF PANELIST PRESENTATIONS

The Process and Results of the Focus Group Discussions

A logical model for describing the establishment and implementation of CB-MSs was presented to the focus groups. Figure 3.1 incorporates the modifications to the model as suggested by different focus groups and individuals who had varying opinions as to the number of steps in the process and what activities should take place in each step (Crawford et al. 2000).

The focus group participants mentioned that variations to this generalized model exist. They described variations to the framework from project to project and among different initiating institutions. In addition, the participants mentioned that perhaps there are several different models that are implemented in the Philippines. For example, one group proposed a classification based on who designates the MS as follows:

- Nationally designated and community managed
- Municipally designated and community managed
- Nationally designated but not community managed

The focus group participants emphasized a number of key project interventions that should be applied throughout the process rather than solely in any one step. These included public education, capability building, monitoring, and evaluation. Some participants felt the steps in the model should not always be considered sequential; they can overlap in timing and sequence of activities within and between each step.

Some participants wanted to add a step, which they called "pre-entry activities," prior to community entry, preparation, and appraisal. This step would involve project preparation, staff hiring and training, and selecting appropriate communities or sites for establishing MSs. There was disagreement among participants on the best time to identify community core groups, but they agreed that the core group should be composed of community leaders (formal or informal) who lead the planning and organizing initiative at the community level and may also play a role in implementation. Some participants suggested an additional step (a phase-out or phase-down step) after implementation. During this step, the intervening institution either cuts off all ties with the community permanently or continues to maintain some linkages with the community on an *ad-hoc* or as-needed basis.

Factors Influencing Success: Results of the Field Research

Presented by Richard Pollnac.

A field study of 45 CB-MSs sites in Bohol, Leyte, Cebu, and Negros Oriental was conducted to empirically test and validate hypothesized success factors (Pollnac 2000). Numerous factors that were related to the

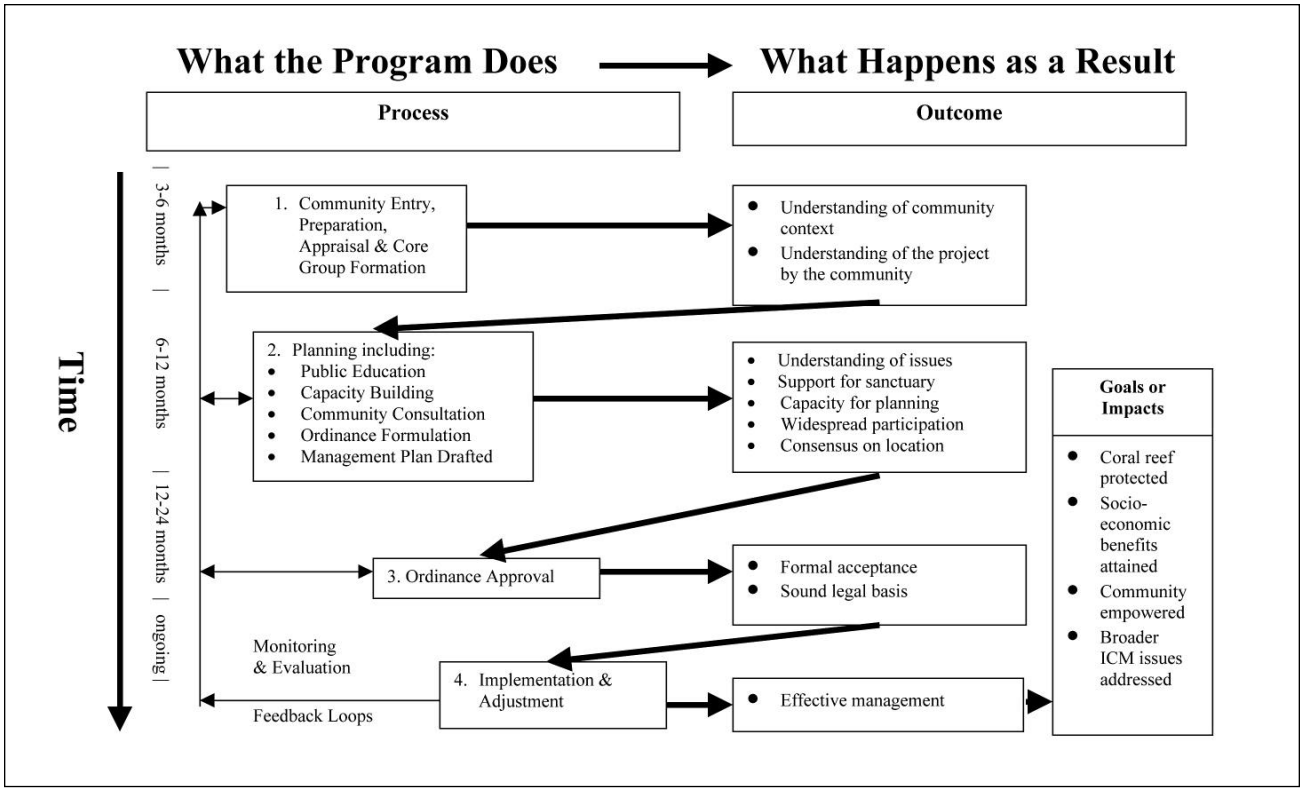

Figure 3.1: The community-based MS program logic model

success of CB-MSs were identified from literature reviews, case studies, focus group discussions, and other meetings and workshops. These factors were classified in two broad categories: contextual and project. Contextual factors include social, cultural, political, and economic aspects directly responsible for the CB-MSs. Project factors include aspects of project implementation and post-implementation activities. The success measures used were a composite of biological, technological, and social variables. The study examined how these factors either individually or in combination impact the various components of success of CB-MSs. Data was gathered through key informant interviews, direct observations of the CB-MSs site and adjacent community, and secondary data collection.

Overall, the analyses indicated that six factors appear to be extremely important for the overall success of the CB-MSs:

- A relatively small population size
- A perceived crisis in terms of reduced fish populations before the CB-MS project
- The presence of successful alternative-income projects
- A relatively high level of community participation in decisionmaking (high on the democracy scale)
- Continuing advice from the implementing organization
- Inputs from the municipal government

These were identified as most important using step-wise regression, which removes other variables highly

correlated with both the success measures and the "most important" variables. The highly interrelated variables–those involving aspects of community participation in CB-MS projects–are an example of variables that will require further examination. A future analysis will examine these multivariate interrelationships.

It is important to note that some variables widely assumed to be important did not appear so in the analyses presented here. For example, many have suggested that having a full-time village facilitator is an important pre-condition to success. This factor does not have a significant relationship with the success measures used here. The same holds true for the almost ubiquitous belief that CB-MSs initiated at the village level are more likely to be successful. Many other variables expected to be related to CB-MS success also proved to be unrelated in our sample. The significance of findings such as these is that they can be used by decisionmakers to avoid unnecessary, costly activities in CB-MS projects. For example, it obviously costs a great deal more to have a full-time facilitator for each village involved in a project. If part-time facilitators achieve the same level of success, as indicated by the analyses presented here, significant savings could be made.

There are several caveats that apply to the present analyses. First, nothing has been said about the factors influencing important predictor variables, such as the success of alternative-income projects. We will try to clarify some of these factors in future analyses of the data. Second, some of the predictor variables, such as level of democracy, seem to be inherent characteristics of a community–possibly the result of historical forces in the area. Changing these characteristics, e.g., improving the level of democracy in a community, may prove to be a difficult, long-term or impossible task. Perhaps, it would be most efficient to select sites where community members already have sustained input in community affairs. These caveats hold with respect to many of the factors that were related to success–how do we implement the proximate preconditions to success? Third, one has to agree that the success measures used here actually measure what we mean by "success of a CB-MS." Fourth, we do not know if the findings can be generalized beyond the Visayas region of the Philippines. Despite these caveats, the findings should prove to be a useful supplement to the many case studies found in the literature. Application of the findings should improve the present success rate of CB-MSs. They should also stimulate further research to identify in more detail the factors influencing the success of CB-MSs, hopefully resulting in an even more improved success rate among these important institutions.

Outcome of Small Group Workshops

Preconditions and Pre-entry (Group 1)

What preconditions within a given community (local community-level context factors) increase the probability of success?

- Population: smaller is better—probability of success is higher
- Culture
- Traditional resource management /indigenous practices
- Interest of community (invitation)

- Relative community dependence on the resources
- Perceived crisis in the resource condition

What other enabling conditions (supra-community context factors) increase the probability of success?

- Higher government (municipal, provincial, etc.) support to the community
- Fewer resource use conflicts with other communities
- Supportive legal framework
- Support from supra-informal leaders
- Success stories from other communities

Can we develop a typology of contexts that help guide us in the selection of a community for intervention activities, or help determine what kind of initial interventions should be implemented? If so, what are they?
A typology can be constructed utilizing the success factors listed above. Demand from the community is a key determinant of success. Favorable local politics are also a key factor in the beginning, but can be overcome in the later stages of development if negative.

Prior to entering a community to start the process of planning, what startup activities need to be taken by the promoting institution, and what conditions should be in place before any community work starts?
The first step is courtesy calls to determine the interest of the community and local government leaders in developing a CB-MS. Preliminary social and biophysical investigation should be done before any long-term commitments are made to determine the context of the area in enough detail to decide if a project is viable. Once a decision is made, program presentations need to be made to start the process of engaging people in the planning process. Formal agreements can then be made with the local leaders–governor, mayor, *barangay* council, and community/NGO–that are finalized with a memorandum of agreement of some kind and signed by appropriate parties.

Community Entry, Preparation, Appraisal, Core Group Formation (Group 2)
Assumption: The change agent is external (the community does not initiate the development process).

What are the key activities undertaken in this stage of the process?

- Initial consultations with local government unit (LGU)/village leaders
- Identify through community consultations:
  - Concerns and causes of these issues
  - Additional concerns of the community and their aspirations
  - Initial ideas on solutions as seen through the eyes of the community
- Selection of development catalyst:
  - Full-time field officer or extension officer (ideal situation)

– Skills in community organization and facilitation with understanding of the process of setting up a CB-MS

- Analysis and identification of stakeholders with the role of clarification
- Conduct Participatory Coastal Resource Assessment (PCRA)
- Public education (one of the preliminary steps in community entry)
- Identifying potential group and conservation leaders and "second-liners"

What critical or minimal outcomes/thresholds are necessary to achieve before proceeding to detailed planning?

- Resource status analyzed and recommendations made by a credible group in consultation with the community as part of the PCRA process
- Active, aware, and assertive core group formed through community organizing process

What form of social contract should be agreed on between the community and the extension institution? How should this contract be developed?

Depending on the local acceptability, various agreements can be used such as social contracts, a covenant of some type among community members, and/or memorandum of agreement/memorandum of understanding (MOU) between the project donor and the community and local government concerned. How a social contract is developed and in what form will depend on the situation, the need, and the types of organizations involved. Donor projects, for example, often require a memorandum of agreement between the community and the project before it proceeds.

What should be the minimum length of time allocated for this stage of the process?

Three to six months is normally required for the preparation phase and establishment of rapport with the community through some form of social agreement.

What criteria and process should be used to select core-group members?

When a project starts to work in a community, there are various ways to identify potential core-group members. Normally, those interested in the issue of marine conservation will come forward and start to participate in some form. Information will become available on the background of various individuals through observations and interviews. Both formal and informal techniques are used to organize and learn about people in the area. One method is to ask for volunteers and suggest small projects for community members to test their willingness to participate.

Once a core group is identified, it should be multi-sector in nature and show strong commitment to the project through its time, talent, and even economic or other form of contribution to the cause. Core-group members should have potential for training, serving as leaders and providing guidance in management of the marine environment, and, in particular, the ability to manage people. Their true interest and willingness is the ultimate test to their ability to perform the job well.

How much time should a field worker spend in the community versus the office, and how can it be tailored based on community context and capacity?

The Focus Group Discussion Report (Crawford et al. 2000) provides details on this question. However, in general, NGO field workers will need to spend most of their time in the community for what is termed "total immersion." Full-time immersion (at least six months to a year) is usually required during the beginning stages of a project. If the proponent or worker is from the government, budget and willingness/commitment of the worker must be taken into consideration. However, in the end, successful community workers need to spend more, not less, time in the community to achieve their objective of helping organize a community core group for the implementation of a CB-MS.

Establishing a MS and Ordinance Approval (Group 3)

What are the key activities undertaken in this stage of the process?

- Resource assessment activities should include:
  - A PCRA including 10 or more community participants in the process
  - Mapping the habitats. This should be a major result of the PCRA so that detailed maps are developed showing not only locations of habitats, but resource use patterns, locations of fish and other resources, land marks of importance, and more.
  - Site selection should include a review of the maps and data collected during the PCRA process. The community develops this into several alternative proposals, with technical assistance from relevant NGOs or government agencies. The community and researchers together determine objectives of the MS through dialogue and consultations. Ultimately, a consensus on site selection is reached after everyone is satisfied that the process is open and agreement is clear.
- Management plan development activities to be decided should include:
  - Locating boundaries and zones, and clearly delineating these boundary markers
  - Identifying allowable activities, and to what extent they are allowed
  - Determining responsibilities of the core group in managing the sanctuary
  - Validating the management plan with the community, LGUs, NGOs, and researchers
  - Validating the process through community consultation and research, with a focus around the core group in the community
  - Drafting the ordinance following the agreement on the management plan. The ordinance essentially endorses the management plan and puts it into legal language. Once drafted, it is presented to the village, *barangay* council, and municipal council.
  - Approving the ordinance. This will come once all levels of local government are satisfied that the ordinance is in agreement with the needs of the community or village of concern, and that it can effectively be implemented. It is useless to approve an ordinance that is premature to the actual management of the sanctuary, and if agreements are not solid within the community, about the location and form of management.

What critical or minimal outcomes/thresholds are necessary before an ordinance is presented to the community and local government for approval?

The group agreed it is critical to have a management plan, no matter how general, before an ordinance is presented. Without a management plan, there is no assurance that the community has been involved in the process of deciding the basic parameters about the establishment and management of the sanctuary.

What social and economic criteria should be considered in sanctuary site selection?

- Socioeconomic criteria to consider include:
  - Resource use patterns and willingness of the community to change these patterns
  - Potential conflicts that could arise when the sanctuary is implemented
  - Displacement of livelihood, if any. Generally, fishers are mobile and not easily displaced.
  - Traditional practices that may need to be changed and willingness to do so
  - Manageability of the area in terms of location, ease of protection, guarding, etc.
  - Existing legislation on the area of concern. Does it exist, and if so can it be amended?
- Ecological criteria to be considered as discussed in the section on the theory behind CB-MSs include:
  - Level of biodiversity in the area as measured by coral cover and fish diversity
  - Potential for increased productivity because the area is a net "sink" of marine larval recruitment as a result of ocean currents
  - Proximity to threats/risks that could cause serious pollution
  - Uniqueness of the habitats/functions that deserve special protection
  - Relative size to what is needed for adequate conservation of a given area

What are the best types of participation techniques in this stage of the process?

- Community meetings, formal and informal
- PCRA
- Education programs involving local participants in their design and implementation
- Community organizing

How do we know when there is enough participation and when sufficient consensus is reached?

- Attendance to meetings over time: is it waning or increasing?
- High level of awareness about what subjects
- Percent familiar with the ordinance is high
- PCRA participation and results are sufficient to meet needs of assessment and participation
- Participation is occurring without undue incentives

What should be the basic contents of an ordinance?

- Rationale/objectives
- Site description and mapped boundaries
- Allowable activities
- Roles and responsibilities of community, core group, and local government
- Management guidelines and process
- Revenue mechanisms and process of collection
- Penalties
- Repealing clause and dates effective

Under what conditions should an extension program choose to pull out from assisting a community?
The extension program may pull out when the community has developed the capability to manage the MS by themselves. This may take anywhere from one to three years. If the extension program stays too long, it may undermine the sustainability of the program under the guidance of the community and local govern-

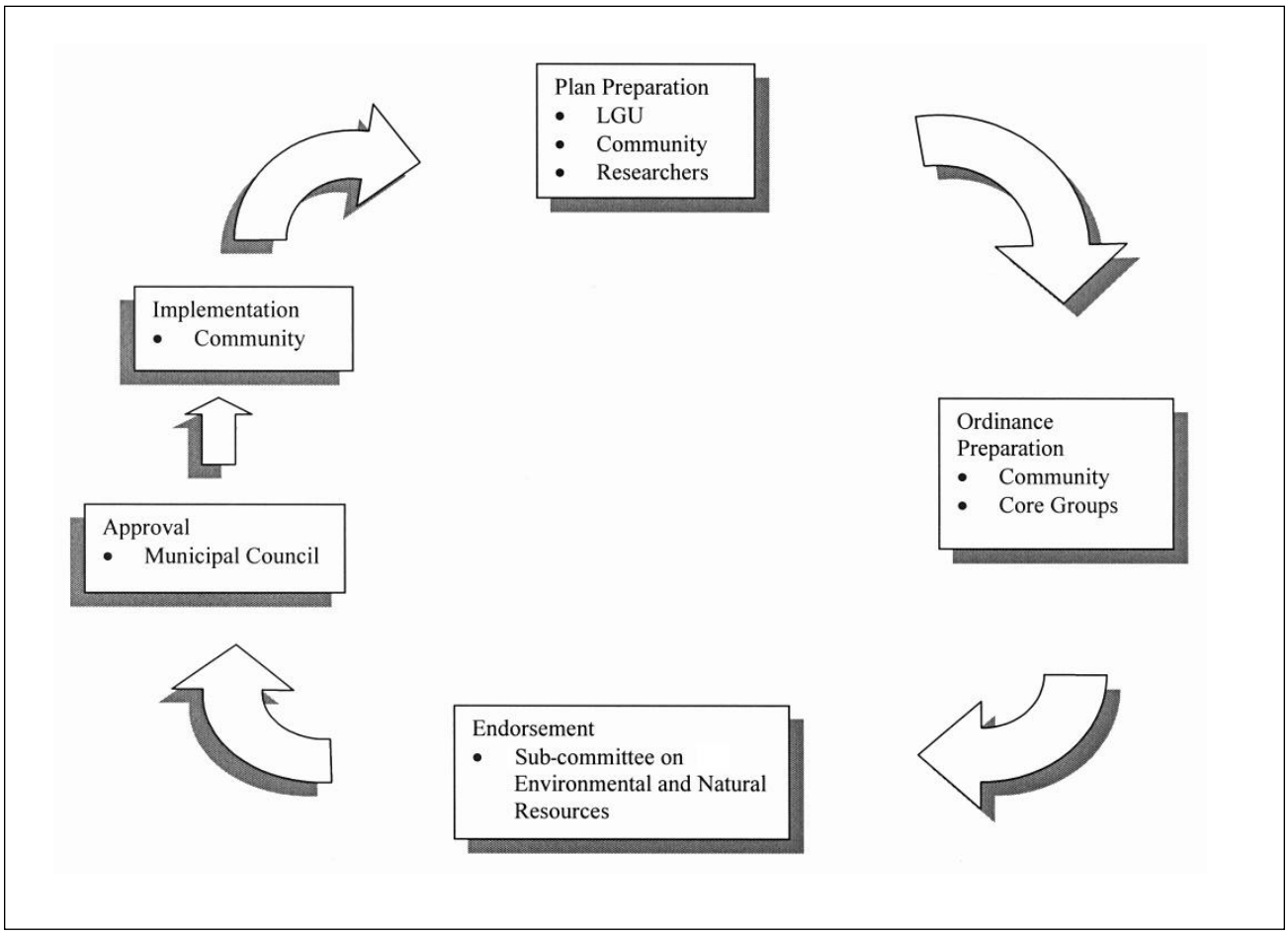

Figure 3.2: Who approves an ordinance and how?

ment.

At what stage and how should alternative/supplemental livelihoods and other community development initiatives be introduced? What criteria should there be on choosing types of livelihood and development actions, and who decides? To what extent does it matter whether the livelihood component is successful or not in terms of success of the sanctuary?

Ideally, alternative livelihood opportunities will be incorporated in a larger CRM plan for the area in a manner that enhances conservation and management activities. It should strive to build incentives for resource management and not detract from the resource base in any way. Basic considerations on the type of livelihoods should be:

- Environmentally friendly, thus enhancing conservation
- Market driven so there is a true demand
- Related to traditional activities so people are connected and can learn them easily through existing skills in the community
- Have a sound business plan

Should a management plan be started during this stage or wait until the ordinance is established?

The group decided that a plan should be prepared before the ordinance, and the plan should be attached to the ordinance as it progresses through the acceptance process.

What should be a minimum length of time allocated for this stage of the process?

One year

Management and Implementation (Group 4)

What activities are undertaken by the extension institution at this stage in the process, and what does the community undertake? What essential services and resources should be provided to the community at this stage?

- Activities of the extension institution can include a phase-down process while providing demand-driven services to the community such as leveraging money, training, technical advice in planning, or other needs to manage the CB-MS.
- Community activities could include requests for specific assistance from the extension institution and taking more initiative to activate the community to learn more skills in managing the CB-MS. Extension is in phase-down, demand-driven services. It should help facilitate monitoring and evaluation, and provide technical advisory services in plan formulation. Extension also helps in marketing of the CB-MS to outside groups/consumers during the latter stages of implementation. Outside groups include government officials and the private sector. Extension also helps in trouble-shooting implementation difficulties and analyzes problems for the planners.

What should be the contents of a management plan for the sanctuary?

The contents of a management plan should include:

- Maps with coordinates and description (written) of the area
- List of resources and their uses
- Issues facing coastal resource users and proposed solutions
- Objectives, strategies, and activities
- A budget and financial plan for generating revenue
- Institutional arrangements and responsibilities
- Monitoring and evaluation schedule

How should fees and fines be determined, and how should they be managed and allocated?

Fees can be based on other experiences and the quality of the environment in relation to the type of people or tourists who will be paying the fees. The local government's legal framework also has guidelines for fees and fines. Sharing of revenues will have to be worked out in the local situation between the community and the local government depending on existing guidelines.

How should management committee members be selected?

Selection of committee members is discussed above under core group formation. The principles and process are the same, with a main feature being the representation of the various sectors in the community. Members should be committed and interested in the management committee work.

What should be the roles, functions, and activities of the management committee?

- Draft the final management plan through the participatory process described above
- Implement and evaluate the plan as required
- Manage and monitor the CB-MS

Internal and external committees should be considered. The internal committee is the actual management committee, while the external committee helps in monitoring and evaluation. The external committee may consist of persons other than the management committee.

How does the extension institution phase-down activities in the community, and how does it know the appropriate timing of phase down? When should the field worker be pulled out of the community on a full-time basis?

There is a need to assess capability/motivation of the community in continuing activities on their own before pulling out field workers. The progress in implementing the management plan through benchmarks needs to be evaluated against objectives of the project.

What ongoing relationship and support should the extension institution have with the community once implementation has started? Once it is determined the community has the capacity for sustained management, what role does the extension institution continue to have with the community? What services and other support should continue to be provided?

By the time implementation has begun, the extension institution should be in a full partnership mode with

the community, but beginning to phase down its full-time active involvement in the management process. The bulk of its activities should be focused on developing/enhancing and maintaining the capabilities of the selected community managers.

When the community capability reaches sustained management, the extension institution lets them take the lead and provides only specific services requested by the community. Typically, these activities are aimed at developing the awareness/capability of specific sectors, rather than the community as a whole.

Group Discussion: Success Factors

Who determines the core group?

This was discussed when considering the internal versus external facilitation of the core group development process. It was suggested that the community determines the core group with assistance from the community workers or organizer assigned to the *barangay* or village. The community worker may have a recommendation on who are the best leaders and who should comprise the core group, but the real decision must come from the community members who will have to live with and respect the core group.

Who makes the management plan for the MS?

It was clearly stated that the management plan should be developed through a participatory process that allows the community the full say, as much as practical, to develop the management plan. It was suggested that the development of the management plan is the best opportunity for the participatory process to proceed prior to CB-MS finalization and implementation.

Does the planning process precede or succeed the ordinance?

There was some discussion because different people had different ideas. The consensus was that the planning process should preempt the ordinance, and the plan could be the main input into the ordinance. This participation to develop the plan will help prevent situations where an ordinance is drafted very quickly by a few people and passed through the municipality without much participation from the community members and before a core group is formed and active.

Comparisons and Recommendations (Philippines)

Discuss ways to build institutional support, capacity, and budget for CB-MSs in the Philippines.

- Local governments should provide the following or seek assistance to:
  - Allocate a budget for coastal management from their development fund and prioritize other sources of revenue for CRM
  - Develop CRM plans that prioritize MSs as one of the management tools for CRM implementation
  - Build capacity to accomplish good CRM planning
  - Understand the importance of issues and needs of CRM
  - Understand how to organize their personnel to assist with CRM

  - Adopt a municipal coastal database system to standardize their information, and be able to share it with other LGUs
  - Be able to monitor their progress in CRM
- Academia should:
  - Increase involvement by incorporating CB-MSs into extension and research programs
  - Use CB-MSs as opportunities for monitoring and evaluating the work of faculty and students and for thesis research as appropriate
  - Have state colleges begin to develop extension programs for CB-MSs
- People's organizations can get more involved in setting up CB-MSs; but to be able to operate officially must first become incorporated and registered with the Securities and Exchange Commission for funding.
- Private sector and business groups can help to support CB-MSs through various financial schemes such as visitor and user fees, donations, providing technical assistance or equipment for monitoring, or guarding CB-MSs.
- NGOs can enter in a memorandum of agreement with LGUs for cost sharing in projects for CB-MSs. NGOs need strengthening in their approaches to technical assistance for CB-MSs. They often use different community organization methods and different kinds of resource assessments. Standardization of techniques used by NGOs in the Philippines is important. They can benefit from forming partnerships with universities together with LGUs.

What are the benefits to regional cooperation?

- Capability building and sharing of project models is a major benefit. Local governments, university-based projects, and technique and enterprise development can all benefit from regional and cross-country exchanges (e.g., between Indonesia and the Philippines).
- Standardization of methods for monitoring is another important benefit. This is evolving through more exchange of data and the need to cross-reference data which is difficult if methods used to collect data are different. This kind of standardization needs to occur within a country before it can easily be transferred to other countries. The Philippines is nearing agreement within the country on the practical methods to use for monitoring. The Philippines can share these methods with other Asian countries.
- Joint projects and programs could be set up between two or more countries for cross-country learning. This has been done in the past among scientists in different Asian countries and could work for CB-MSs in an effort to share lessons from one project to another.

Recommendations for priority topics for regional cooperation include:

- Methods for community-based PCRA and monitoring in general
- CB-MS management techniques and management plans
- How institutions can be built for sustainability
- Community organization techniques

- Environmental education programs
- Legal ordinances and how they are enforced
- Replication of projects within countries and how to scale-up
- Developing a CRM information network

Is the Philippines CB-MS model sufficiently successful and robust to warrant replication in a range of community settings in North Sulawesi and other locations in the region?

Yes, the model is robust, but it must be tailored to various sites whether in the Philippines or in other countries such as Indonesia. Models are never perfect and must continue to evolve to be more robust. In the Philippines, the model has problems with larger-scale coastal management issues since problems are increased by an order-of-magnitude. In this case, the CB-MS is only partially applicable and must be incorporated into more integrated forms of coastal management that include larger geographic areas with more complexities than small sanctuary areas.

The current model is sufficient to help establish a series or network of CB-MSs all over the Philippines. This is happening, although because the model is not always followed, many CB-MSs that are established do not work or fail after several years of operation.

Are CB-MSs effective in catalyzing more comprehensive coastal management initiatives at the community scale and in broader geographic areas?

Yes, they are triggering many more projects that can enhance wider CRM in broader community settings. This is happening because the problems of coastal management are widespread and CB-MSs are only an initial solution for localized areas. They are a good start to more comprehensive programs for CRM. Because CB-MSs are relatively manageable and small scale, their short-term results create more interest in CRM in general. They are effective in catalyzing more action in the broader context of coastal area management.

CHAPTER 4
PHILIPPINE FIELD TRIP REPORTS

The workshop participants visited two sites off Mactan Island (the Gilutongan Island Marine Sanctuary and the Olango Island Bird Sanctuary) to directly observe how communities in the Philippines are managing MSs. The participants read the profiles prepared for the sites, observed the activities in the area, and talked to MS leaders and other key informants using the following guide questions during the field visit:

- How does the site benefit (or not) from being designated a CB-MS?
- What problems have the MSs helped address and what were not addressed?
- What are the challenges to make it sustainable?
- What are your recommendations for the community and local support institutions?

GILUTONGAN ISLAND MARINE SANCTUARY

The Gilutongan Island Marine Sanctuary has a total area of 15 hectares (ha) located along the western coastline of Gilutongan Island. It is under the jurisdiction of the municipality of Cordova, Cebu. This was one of the pilot sites of the Cebu Resources Management Project in 1991-1993. The sanctuary was established in 1991 by the municipal legislative council (Municipal Resolution 91-93) by approving the recommendations made by the Cordova Resource Management Board (Board Resolution 01, Series 1991). Sanctuary enforcement started in 1992 by the community members led by the Barangay Secretary and ended in 1995 following the resignation of the Barangay Secretary due to enforcement problems. Afterwards, the sanctuary existed only in name.

The sanctuary became one of the pilot sites of the CRMP-Philippines in 1996. Activities in the sanctuary included identification of resources, issues, and opportunities following a participatory coastal resource assessment. In 1998, seaweed-farming technology was introduced in the area, and credit was provided to the community to support the development of alternative livelihood activities through an island-based cooperative of island fishers. In the same year, the first participatory survey of reef and fish conditions inside and adjacent to the sanctuary was undertaken. The survey yielded results that highlighted various sanctuary management problems, including the incomplete legal status of the marine sanctuary and excessive/uncontrolled use of marine resources in the non-restricted zones.

With CRMP's support, a multisectoral Technical Working Group (TWG) was formed to assist in drafting a municipal ordinance officially establishing the sanctuary. The municipality of Cordova formally adopted the sanctuary ordinance on March 24, 1999, by virtue of Resolution No. 30, Series of 1999. However, some inadequacies were found in the resolution so several interagency consultations were held to determine needed revisions. Finally, the marine sanctuary ordinance was amended and passed on May 31, 1999, by virtue

of Resolution No. 47, Ordinance No. 003, Series of 1999. The formal launching included installing mooring and boundary buoys. Mr. Timoteo Menguito was designated as the sanctuary's project director with funding support from the DENR Regional Office No. 7.

The specific objectives of the MS, as formulated by the municipal ordinance, are as follows:

- To protect and manage the municipal waters of Cordova and its coastal and fishery resources for the enjoyment and benefit of its people
- To rehabilitate and restore depleted coastal and fishery resources of the municipality by establishing MSs in areas of high productivity and/or high biodiversity
- To control and regulate the activities of visitors, tourists, divers, snorkelers, swimmers, boaters, and other resource users within established MS areas

On November 11, 1999, Cordova Municipal Ordinance No. 008 was passed regulating the activities within the sanctuary, including establishment of accreditation and user fees, a system of collecting fees, sharing arrangements, and a management structure for the sanctuary. Organized vendors are actively involved in sanctuary management/enforcement activities. As of September 2000, collection of user and accreditation fees amounted to P 178,475.00 (US$ 3,570). However, these fees currently go directly to the municipality of Cordova because no cash payment is being done on-site.

The following information/response by the workshop participants were based on interviews with the project director and other informants in the community.

How does the site benefit (or not) from being designated a CB-MS?

The workshop participants observed that Gilutongan Island Marine Sanctuary does not seem to exhibit the characteristics of a CB-MS. The project director is the one person most actively involved in the management of the sanctuary. The *sanguniang barangay* (village council) and the Barangay Fisheries and Aquatic Resources Management Council (BFARMC) are not involved in the management of the sanctuary, although the project director is a member of the council. There is little participation from the community other than taking part in the survey of reefs and fish condition inside and outside of the sanctuary.

The major benefits from the sanctuary are derived mainly from tourism activities, particularly from user and accreditation fees including income from vending activities. While fishing is not allowed in the sanctuary, fishing is not a major livelihood in the community. Their proximity to the city allows the community to engage in economic activities other than fishing such as vending souvenir items, mineral water, and other tourist staples. There are about 48 vendors organized into an association. These vendors, who also serve as lifeguards, observe a rotation schedule. The scheme for sharing user fees and other income derived from tourism activities between the municipality of Cordova and the community (70:30) had yet to be realized.

The sanctuary also serves as a demonstration site for sanctuary management. It appears there is widespread community compliance with the rules and regulations related to sanctuary management, as indicated by an observed decrease in destructive fishing inside the sanctuary. Based on fish and live coral cover monitoring, there are indications of increasing coral cover and stabilization of fish populations in the area.

What problems have the CB-MS helped address in the community, and what coastal problems are they not addressing? Should they address these other problems and how?

The project director and the lifeguards have reduced destructive fishing operations in the sanctuary through the enforcement of laws. Destructive fishing, however, is still being practiced outside the sanctuary due to lack of enforcement. The impact of the CB-MS on fish yield has not been assessed, and the community has yet to get their share of income derived from the collection of user and accreditation fees.

Community education within the island is lacking and the self-help potential of the community is not tapped. As a result, there is low community participation in the management of the sanctuary.

These problems are now being addressed through community mobilization in order to develop a sense of ownership of the CB-MS among members of the community. Community organizers are facilitating this through an intensive information, education, and communication program. This is further being enhanced by involving the community in the drafting of a coastal management plan for the larger Olango area.

What challenges do they have to make it sustainable?

The immediate challenge is to get the community actively participating in the management of the marine sanctuary. This requires helping the community develop a sense of ownership over the sanctuary. This involves substantial community participation both in the planning and implementation phase. Therefore, there is a need to start mobilizing community participation in the management of the sanctuary by making them informed of the current programs and activities related to sanctuary management and by involving them in the implementation of the management plan. There is also a need to seek the LGU and the Barangay Council's support in the implementation of the plans and programs in the area.

What are your recommendations for the community and local support institutions?

There is a need to deputize more guards who could be paid out of the income derived from the user and accreditation fees. The lifeguards' responsibility should be strengthened by forming them into composite teams and providing them with adequate enforcement authority. There is also a need to review the income sharing system in order to have a more equitable distribution of income among members of the community. The community should be empowered to be more involved in the conduct of participatory planning and evaluation along with the LGU, DENR, and CRMP.

OLANGO ISLAND BIRD SANCTUARY

Olango Island has a total land area of 1,041 ha, with a human population of 20,000 belonging to 4,000 households. Seventy-five percent of these households are engaged in fishing or related livelihood activities such as making shellcrafts. These activities are dependent on the use of coastal resources. It is the site of the 920-ha protected wetland called the Olango Island Wildlife Sanctuary (OIWS) which is located 4 km off the east coast of Mactan Island, Cebu. The wildlife sanctuary is being managed by the DENR through a locally constituted Protected Area Management Board (PAMB). The PAMB is comprised of national and local gov-

ernment, nongovernment, and private-sector representatives. The wildlife sanctuary serves as a refuge to thousands of migratory birds traveling the East Asian Migratory Flyway every year between February to April and from September to November. Because of this, Olango is a major tourism destination with 250,000 foreign arrivals annually. These are organized through the Olango Birds and Seascape Tour (OBST) Project. This project began in March 1998 as an ecotourism venture and is owned and managed by a fishing community through the Suba Olango Ecotourism Cooperative (SOEC) and is assisted by CRMP.

The workshop participants joined the Olango Birds and Seascape Tour to observe how this bird sanctuary is being managed by the community. The participants were guided by the same questions used in Gilotungan in their observations:

How does the site benefit (or not) from being designated a CB-MS?

The Olango Island Wildlife Sanctuary is a source of livelihood for those living on Olango Island by providing services as pump-boat operators, paddlers, tour guides, food vendors, etc. in the ecotourism project. This project became a vehicle for cooperative development in the community and provided opportunities for training. As a result, the community has developed a general sense of well-being as reflected in the cleanliness and cheery atmosphere in the area.

What problems have the CB-MS helped address in these communities, and what coastal problems are not addressed? Should it address these other problems and how?

The problems addressed by the MS are the low level of income of the community and the low self-awareness and self-esteem. The problems that are not being addressed are over-fishing, destructive fishing, and the low level of environmental awareness of the community, as a whole, as indicated by unchecked mangrove cutting and dynamite fishing in the area.

What challenges do they have in being sustainable?

For the ecotourism project to become sustainable, the cooperative running the project should be strengthened through a capability-building program for the cooperative members. The community should build their own information center and should prepare to support the operations of the project after the completion of ongoing government programs in the area. The involvement of more community members and other existing POs in the management of the sanctuary should be encouraged.

What are your recommendations for the community and local support institutions?

To sustain the viability of the ecotourism project, the participants recommended the following:

- There is a need for stronger ties between the community (through its cooperative) and government institutions such as the Philippine Tourism Authority (PTA), the DENR, and LGUs in order to strengthen and sustain the implementation of the ecotourism project.
- There is a need to formulate and implement strategies to allow the shellcraft industry to continue without threatening the population of molluscs and invertebrates that are important to birds that visit the sanctuary.

- An intensive environmental awareness drive should be conducted for all the sectors concerned in the wildlife sanctuary.
- Other stakeholders/members of the community should be encouraged to participate in this project.
- The existing cooperative should open its membership to other members of the community who are willing to be involved within practical limits.
- The cooperative must be linked to a tourism network that could help make the ecotourism project economically viable and sustainable.
- The cooperative should conduct monitoring of mangrove growth, bird count, etc.
- The cooperative should conduct continuous capability building for the community.
- The cooperative must be a member of the PAMB.
- A management plan for the island should be prepared through a community participatory planning and implementation process.

DISCUSSION

While there are some very real differences in terms of community involvement between the two MSs found in Gilotungan and Olango, the fact remains that CB-MSs require a large investment in terms of community participation. While the current poverty level at the community level is cause for concern, a MS does provide opportunities for increased income generation through a variety of livelihood options. In the case of both Gilotungan and the Olango Bird Sanctuary, the communities can use their current earned income to invest in activities that will eventually bring about greater economic benefit in the medium to long term.

Once a community realizes the potential for future economic benefits from a MS, it needs to act as if dealing in a business venture. By investing for the future, the community will be able to reap greater rewards than they currently do. However, if the community continues to act in a short-term frame of mind, they will never realize the full potential of the marine sanctuary or other potential livelihood options.

CHAPTER 5
ORGANIZING AND IMPLEMENTING CB-MS EXTENSION PROGRAMS

SUMMARY/ABSTRACT OF PANELIST PRESENTATIONS

Several panelists were invited to speak to the group on their experiences (and lessons learned) with establishing and running CB-MSs in the Philippines. The panelists were able to reflect the views of the NGO community, academia, and the local and national government programs.

NGO COMMUNITY EXTENSION PROGRAMS

The first panelist was Orlando Arciaga (Haribon Foundation) who spoke on the Capiz Fishery Conservation and Management Project.

This project is based in *barangay* Bonot-Sta. Rosa of the municipality of Calabanga, in the province of Camarines Sur. The project has the overall goal of rehabilitating the depleted population of capiz (*Placuna placenta)* in Calabanga by instituting a marine resource management program.

The Haribon Foundation works to improve the sustainability of community-based CRM in terms of effective forms of community organization and coastal livelihood development activities. This is accomplished through appropriate units of management, enhanced selection and implementation criteria, improved individual and group capacities, and installation of sustaining mechanisms.

The Haribon Foundation also works with an alliance of CB-MSs in the Philippines. This alliance is supported in part by the David and Lucile Packard Foundation, the Friedrich Ebert Stiftung, and the Rockefeller Brothers Fund. The alliance is the result of a National Convention and General Assembly of Community Managers of MPAs in the Philippines. From this was formed a group called Pambansang Alyansa ng mga Maliliit na Mangingisda na Nangangalaga ng Karagatan at Sanktuaryo sa Pilipinas (PAMANA KA SA PILIPINAS). This alliance is made up of 33 community-based and community-managed MPAs all over the country working in unity through organizational expression.

The Haribon Foundation and other local NGOs use some common techniques when encouraging community involvement:

- Continual process of action-reflection-action
- Involvement of resource specialist and community organizers
- Integration of field workers for capacity building within the community
- On-going programs for education and training
- On-going work towards advocacy and networking

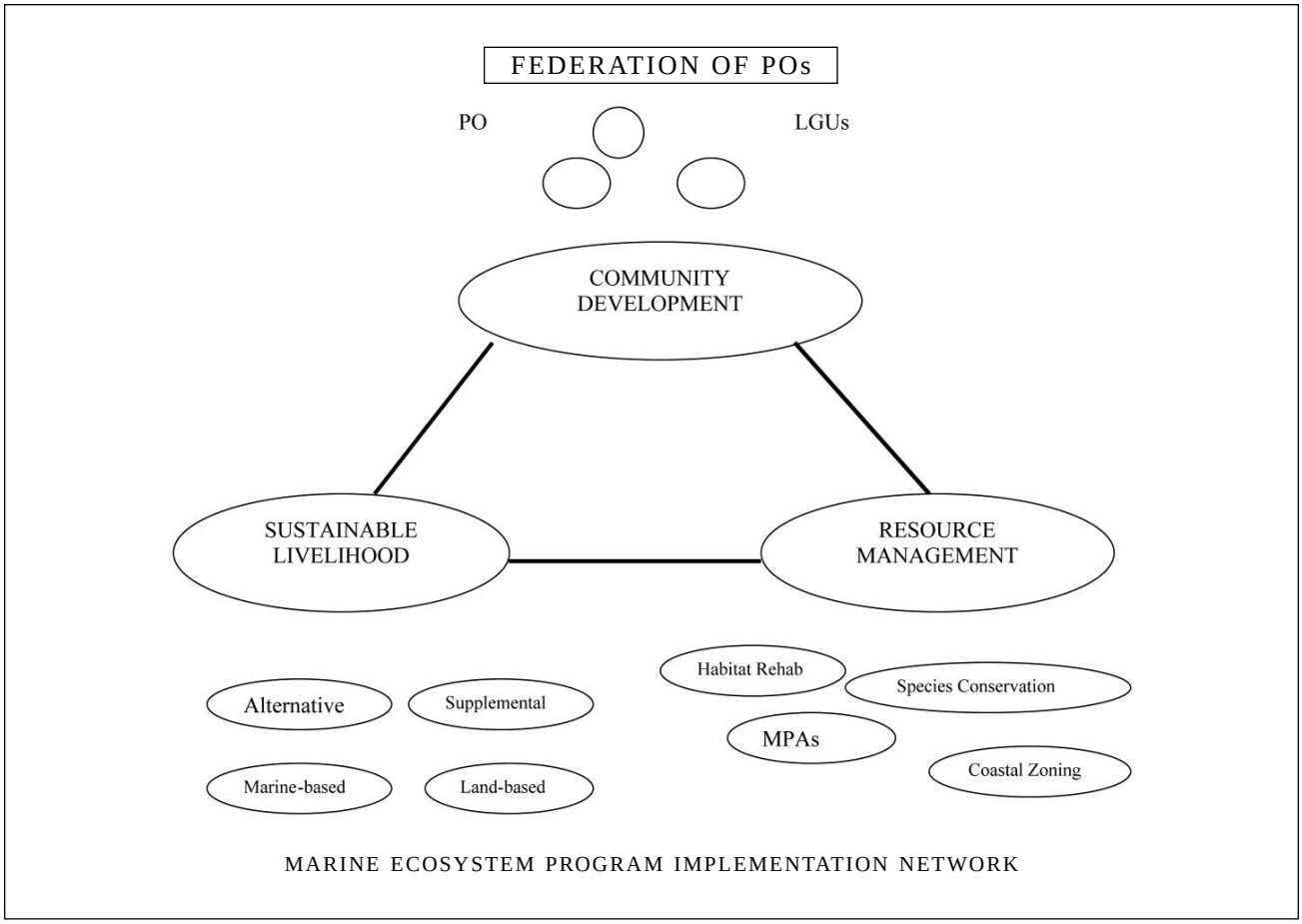

Figure 5.1: Structure of community extension as followed by the Haribon Foundation

UNIVERSITY COMMUNITY EXTENSION PROGRAMS

Victor S. Soliman (CRM Section, Bicol University, located in Tabaco, Albay Province)

It is a mandate for government universities to conduct extension programs. In the Philippines, state colleges and universities (SUCs) have four equal, integral functions that are stipulated in their charters: research, instruction, production, and extension. One key advantage of SUCs doing extension activities is their tradition of maintaining objectivity.

It is also enshrined in the Philippine Constitution that "The State shall protect the nation's marine wealth." Moreover, the constitution is unique in that it provides that "The State shall protect the rights of subsistence fishermen, especially of local communities, to the preferential use of the communal marine and fishing resources, both inland and offshore."

Conducting extension or outreach activities realizes the research-extension linkage. This says that what one produces in research has to be disseminated, or transformed into materials and services to benefit the people.

CB-MS extension programs, therefore, should capture and respond to the situation in the community the programs aim to serve.

Using a Venn diagram with two circles, if one circle represents the state of the environment, and another slightly overlapping circle represents the socioeconomic issues in the community, the portion formed by their intersection (area overlapping) is the combination of issues that the CB-MS extension program must capture. It should be asked, how much overlap of the research-extension continuum should be made in the beginning, middle, and post-intervention phases of a project?

The CB-MS extension program should have three vital elements: sustainability mechanisms, technical viability largely addressed by research, and local government and community support.

It is a good practice to invite the municipal agriculture offices, municipal planning and development officers, and provincial planning and development officers to participate in the research and development planning of your agency. You can ask them to present their programs and see how your and their programs can complement one another. It is also an occasion to present highlights of viable projects which you want to promote in the community. You will see that in doing this, you will get more requests for collaboration with them in implementing their projects. This partnership is basically what should prevail in community-based extension programs.

Another partnership arrangement can be in the form of a MOU. A few months after we finished the resource assessment of San Miguel Island, the Bicol University signed a MOU with the Tabaco Municipal Government and the Sagurong Barangay Council for collaboration in conducting the San Miguel Island Marine Fisheries Resources Management Project. This, among others, declared the San Miguel Island as the marine science park of the Bicol University where activities on education, research, and extension for marine science and related sciences will be pursued. You can look at it as a mechanism for and commitment of the university to continue research and development activities on the island.

Would you consider the Gilotungan Sanctuary an example or a non-example of an effective CB-MS? Can it be sustained?

We can have mixed reactions on this, but whatever side we are on, talking and interacting with Nong Toti was a learning experience. He is a champion of coral reef protection, but he and his followers in the island can only do so much.

The Gilotungan Project highlights the role of and the lack of community and LGU relations to CB-MS management. Certainly, the CB-MS program is a collective effort of the stakeholders in the community. Without pooling efforts, its sustainability is threatened, and in this integration of efforts, one thing stands out–people and local government support must be concrete and sustained. In addition, a lot should be devoted to improving community relations and inter-agency collaboration. You may even ask, what percentage of answers does research provide to CB-MS establishment and management–75, 50, or 25 percent?

If we have a chart relating research cost to positive increase in impact for a CB-MS, how much should be devoted to research to produce the minimum requirements? How much does it cost per hectare or square kilometer to establish and manage a sanctuary for a period of five years?

This and related questions are the main issue when we discuss and push for CB-MSs and other countryside development projects among LGU executives. It may even be argued that developing a CB-MS is largely an art that emphasizes the role of implementers in the success of the project, and less of how we follow a set of rules for doing it. This is a bit dangerous to suggest, as this may put some researchers out of business!

You may disagree with me, but may I say that in a place where there is greater urgency for the stomach, the urgency on the environment trails a far second.

I am not closing the door, though. We can still do a lot. Finally, may I say that the most important elements for an effective and successful CB-MS cannot be imparted in a workshop or cross visits. You must have those involved with you. You must have commitment and credibility. Commitment, because it is a tough job, will even test your moral fiber. Credibility is necessary, because your extension program will not draw supporters if you say one thing and do another. Good luck to our Indonesian friends.

Local Government Community Extension

Mercy Teves (Province of Negros Oriental Environment and Natural Resource Management Division) spoke on the approach used by provincial government in conducting extension work for marine sanctuary implementation. Her presentation is outlined as follows:

Pre-entry activities

- Establishing inter-agency coordination
- Courtesy calls
- Initial technical assessment
- Selecting appropriate communities/sites

Community entry (social preparation and appraisal)

- Courtesy calls to municipal and *barangay* officials
- Identification of stakeholders
- Presentation of technical studies results
- Environmental awareness building
- Core group formation
- Participatory resource assessment
- Community validation and consultation
- Organization of fishers' association (if not yet existing)

Public education and capacity building

- Environmental education
- Human resources development and organizational development
- Orientation for municipal/*barangay* officials

Planning and decisionmaking

- Consensus building
- Formulation of fisher association resolution to be submitted to the *barangay* council
- Discussion of fishers association resolution by the *barangay* council and conduct public consultation
- Formulation and approval of *barangay* council resolution which is endorsed by the municipal council or Sangguniang Bayan
- Formulation of a draft ordinance with technical descriptions based on surveys conducted by the DENR or other cooperating technical agencies

Legislation/approval of the ordinance

- Conduct a public hearing by the municipal council
- Approval of the ordinance
- Formulation of management plan

Implementation and management

- Setting up of the marine reserve
  - Information about the ordinance
  - Installation of buoys
  - Construction of guardhouse information center
  - Installation of signboards
  - Organization of *bantay-dagat* (deputy wardens)
- Enforcement
  - Monitoring and surveillance
  - Training and workshops for *bantay-dagat* members
  - Continuing education
- Ensuring sustainability
  - Establishment of participatory monitoring program
  - Livelihood project development

National Government Community Extension

Jessica Muñoz (Bureau of Fisheries and Aquatic Resources) explained the approach undertaken by the national government in conducting community-level extension work. Ms. Muñoz is also the co-project director of the Asian Development Bank-funded Fisheries Resource Management Project (FRMP).

Institutional/Legal Framework

- R.A. 8550–Fisheries Code
- R.A. 7586–National Integrated Protected Areas Program
- R.A. 7160–Local Government Code

Definitions

- Marine protected area–any marine area, regardless of size, for which a specific kind of management and conservation plan, limiting utilization, or exploitation is devised and applied (Hermes 1998).
- Marine parks
- Marine reserves
- Fishery refuge or sanctuary
- Fishery reserve

Goal and Objectives

- Goal
  - Sustainable use of the resources to ensure greater benefits to the fishers
- Objectives
  - Rehabilitate degraded areas and restore depleted resources
  - Support fish population in adjacent areas
  - Ensure that breeding and spawning areas are protected
  - Protect and conserve biodiversity
  - Provide refuge for a variety of marine flora and fauna

Scope

- Marine or brackish
- Coral reefs, mangrove forests, seagrass beds, or estuaries

Criteria

- Social
- Economic
- Ecological

- Pragmatic

Considerations

- Management plan
- Roles and responsibilities of stakeholders
- Logistic support
- Monitoring and evaluation
- Resource management group
- Research/technical advice
- Procedures/processes of consultation

The formal panel presentations were followed by informal presentation/question-and-answer sessions by Margie dela Cruz (Guian Development Foundation, Inc. an NGO) and Nunila Pinat (Bohol Environmental Management Office from the provincial government).

Outcome of Small Group Workshops

After the panel presentations, the participants broke into small discussion groups to reflect on the role played by extension agents (both institutions and individuals) in implementing CB-MSs. The discussions centered on the responsibility of the agents to work between the various levels and sectors of society involved in marine conservation and coastal management.

Guiding Philosophy and Principles

The guiding philosophy for community-based extension programs, as understood by the participants, was that "…the key stakeholders are the primary managers of the coastal resources concerned."

The principles that are commonly followed in community-based extension are:

- Community/people empowerment
- Active participation of key stakeholders for effective decisionmaking and management
- Following known/documented procedures on effective resource management
- Adaptive management responsive to local needs, context and culture, contacts, etc.
- Integration of a MS into the broader scheme of CRM and development

The overall extension program goal, objectives, and targets, as defined by the participants, are:

- Develop/strengthen people's capability through education and modeling samples of best practices
- Share information
- Improve environmental quality
- Develop sense of pride among people in the community
- Improve economic well-being (increase income)

- Develop and initiate sustainable mechanisms for management
- Achieve sustainable resource management
- Establish and strengthen core group

The discussion groups felt that there are several primary functions of an extension institution. The basic services to be provided by the extension agent are:

- Facilitator (during meetings, trainings, and other activities)
- Source of information
- Catalyst
- Link communities with internal and external agencies/institutions for financial, technical, and other assistance
- Conduct education/information dissemination

The groups also defined the primary clients as being the DIRECT stakeholders, while the secondary clients can be considered as OTHER stakeholders.

Capability Building of Replicating Institutions

In order to build local institutions and sustainable programs that nurture replication, the following paradigms must be held true by all stakeholders:

- Multi-sectoral and inter-disciplinary institutions are necessary for the successful implementation of a CB-MS
- There is always a need for a catalyst (community organizing skills, technical capabilities, sense of permanence, and credibility) to ensure that the process goes forward. The catalyst acts as a lead umbrella.
- There must be a sense of permanence and credibility among all actors involved in the process

The discussion groups also identified important human resources needed (types of staff and their specialization), and what skills each member of the extension team (field and technical-support staff) should have. These include:

- Community facilitation
- Legal/policy background/technical environmental management
- Entrepreneurial skills
- High commitment
- Leadership/integrity/honesty
- Communication abilities
- Networking
- Organizational management

Some logistical and financial resources needed by the extension institution include:

- Logistics
  - – Transportation
  - – Communication equipment
  - – Office/outreach (information center)
  - – Data management facilities
  - – Appropriate training/documentation equipment
  - – Survey equipment and gear
  - – Special insurance for field personnel
- Financial
  - – Salaries/incentives
  - – General fund
  - – Training/outreach/education/meeting fund
  - – Equipment capital outlay
  - – Seed funds/money for livelihood/early implementation
  - – Secured fund for implementation

Structuring, Designing, and Implementing Programs

Community-based extension programs should be designed with the following structure in mind:

- Multi-sectoral, participatory approach
- Information and resource sharing
- Transparency
- Sustainability mechanism built-in

The primary functions of an extension institution and the basic services it provides are:

- Address needs of the community
- Model and showcase proven approaches for management of marine resources
- Coordinate with all levels of government, NGOs, agencies (public and private)
- Define roles for other actors

The institution should tap its existing office organizational structure and follow typical supervisory and reporting mechanisms for the field workers and supporting technical teams:

- Follow set workplans/action plans
- Report to LGU officials, local legislators, community, and other partners at regularly scheduled meetings

The participants agreed that it is a good idea to create advisory or technical boards for CB-MS extension programs. The boards can access technical, specialized information and provide linkages to potential funding.

CB-MS programs are best financed through cost sharing between the LGU and other organizations, since this typically creates a sense of ownership and responsibility on the part of the stakeholders. Other financing mechanisms include penalties, licenses, and user fees. The institutional performance of such programs are perhaps best judged in the following manner:

- Based on process and outcome
- Institutional analysis
- Documentation
- Monitoring and evaluation by users

In this way, adaptive management and learning are built into the extension institution based on trust and transparency.

Summary of Plenary Discussions

In order for the effective implementation of CB-MSs, all actors involved in the process must share in the responsibility of establishing and managing the CB-MS. While the title CB-MS denotes a large portion of responsibility (and benefits) going to the community, the sectoral agencies and local government units play important supportive roles in shaping the development of the local stakeholders to take on the day-to-day management of the sanctuary. Effective sanctuary management mirrors the greater effort in marine conservation and coastal management in that it requires constant coordination, integration, and linkages between all actors. Even the financial incentives require sharing between the community and the local government, as well as relevant sectoral agencies.

CHAPTER 6
MONITORING AND EVALUATION OF CB-MSS

Summary/Abstract of Panelist Presentations

Environmental Monitoring

Andre Uychiaoco [University of the Philippines Marine Science Institute (UPMSI)] gave a brief discussion about the participatory environmental monitoring project that UPMSI has recently been conducting with communities and local government units.

Environmental monitoring and evaluation are needed to determine whether current use and management of the environment are sustainable. Environmental management efforts need to be assessed for effectiveness and to determine areas for improvement. There is also a need to better respond to biological, physical, social, economic, and other changes that could be detected by environmental monitoring and evaluation.

Environmental monitoring and evaluation of the Philippine marine environment has traditionally been undertaken by academic and government institutions, and in the past decade, by NGOs. Local communities have not been involved, and their methods of environmental monitoring and evaluation have not been assessed. However, with the devolution of authority to manage coastal resources, with this authority being given to local governments, there has been an impetus for environmental monitoring to be undertaken by local people with the help of government and development workers. Recently, a number of NGOs (e.g., Guian Development Foundation, Inc., Voluntary Service Overseas, Hayuma, Marine Environment and Resources Foundation, Haribon) introduced formal environmental monitoring systems to local governments.

Participatory MS environmental monitoring and evaluation is a current initiative undertaken by the UPMSI. This involves training local people in environmental monitoring and evaluation. It is envisioned that the trainees would eventually train others.

Coral reef monitoring and evaluation involves the following elements: fisheries catch monitoring, manta tows, visual fish census, benthos quadrants, and identification of the various stresses and threats to the coral reef. Twice a year, there are formal evaluations to discuss monitoring results and identify action points.

The project implementers identified several areas for improvement of this monitoring system, namely, fisheries data collection, standardization of data collection, data summaries and interpretation, monitoring of compliance and enforcement of existing laws, use of local dialects in training and printed guides, and timing of feedback. They would also like to have the monitoring results incorporated into evaluation of management and implementation activities. There are also elements that need to be added to the monitoring system, including planning for monitoring logistics in the training course, putting up billboards that will show the results of monitoring, and seagrass and mangrove monitoring. The group also suggested that the local gov-

ernment's support should be solicited for these activities. This would take the form of food, boat fees, etc. This may be formalized by a municipal ordinance that will provide legal means and financial support to make monitoring and evaluation a regular local government function.

Socioeconomic Monitoring

Richard Pollnac (University of Rhode Island/Coastal Resources Center) gave a brief presentation on the elements of socioeconomic monitoring. He divided the indicators into what he called "hardware" and "software." Hardware indicators are products of project interventions such as mooring buoys, guardhouses, knowledge acquired by stakeholders, and new attitudes developed as a result of participation in CB-MS establishment. Software indicators are the processes implemented in producing the hardware indicators, e.g., conducting of training courses, forming groups or peoples' organizations.

Four broad categories of indicators to be monitored are participation, knowledge, impact, and attitude. For each category, there are specific indicators that have to be measured with the use of specific tools. For example, in order to monitor and evaluate the impacts of a MPA project, indicators that need to be evaluated include environmental indicators, empowerment, well-being of community members (i.e., income, health), among others. Monitoring ideally begins as soon as implementation of the project starts, after which it is to be done at regular intervals. The context variables under which implementation of the project occurs (e.g., socioeconomic conditions of the community, and their cultural and physical characteristics) should also be monitored. Socioeconomic monitoring of communities that are assumed to be unaffected by project interventions should also be undertaken for comparison in order to determine whether the impacts observed are due to project interventions or other changes (e.g., climate, economic context, etc.).

Local Government Monitoring and Evaluation Program

Nunila Pinat presented the Bohol Environment Management Office's (BEMO) monitoring and evaluation program. The BEMO, which is under the office of the governor of the province of Bohol, Philippines, is currently developing a provincial natural resources database that will contain information on solid waste management, upland resource management, CRM, and data produced by marine environmental surveys conducted in Bohol.

A municipal coastal database system was also established which included all coastal municipalities of Bohol. The Municipal Planning and Development Coordinators of these towns were trained on the use of the database system. This database contains a number of key CRM indicators, namely, LGU activities, budget, organizations formed and actively involved in CRM, and best CRM practices. The local government officials are also being trained so they would be capable of assessing the status of CRM in their municipalities.

The BEMO would like to develop a CRM certification as a screening tool for coastal municipal government units. This system of certification will be used, for example, in determining whether municipalities are eligible for grants from higher levels of government or from external donors.

Outcome of Small Group Workshops

How do you Monitor and Evaluate a Program or Portfolio of Sites? (Group 1)

What are the key criteria and indicators of a successful extension program for establishing and implementing a CB-MS?

Criteria/Process	**Indicators**
Participation	Percentage of participation: - Community - Male/female - Government - NGOs - Academia Quality of participation
Core group formed and active	Yes/no Number of meetings Percentage of attendance
Management plan or ordinance (or both)	Yes/no Processes
Implementation of activities Public education Regulations Others	Number Type Quality Timeliness
Funding	Amount How spent Secured/institutionalized: - Yes/no - How
Community organization	POs organized: - Yes/no - Number of people involved - Legal basis - Activity
Other sanctuaries in or outside the area	Successful: - Yes/no - Number
Outcomes	
Environmental/biophysical	Refer to Group 2 output
Socioeconomic	Refer to Group 3 output
Cultural	
Institutional structure	

What techniques and methods should the institution use for capacity assessment as well as for performance evaluation?

Use monitoring and evaluation to develop information that can be used to improve implementation and project management

Assess and evaluate, both internally and externally

To what extent should assessment be driven internally or driven by external clients?

Assessment is preferably internally driven for adaptation purposes, but external evaluation in compliance with donor requirements is demand driven.

What level of resources should be devoted to program monitoring and evaluation, and how much time should staff devote to this activity as opposed to program implementation?

Eighty percent of staff time should be devoted to program implementation and 20 percent on program monitoring and evaluation.

How should results be summarized, reported, and used?

Reporting will depend on the type of monitoring and evaluation and for which target audience (donor, management, etc.).

If it is for project implementation improvement, then it must be done as often as will allow for effective corrective management.

Ecological Monitoring and Evaluation (Site Level) (Group 2)

What are the most critical indicators to monitor, and where should they be monitored (specify for various sanctuary objectives such as fisheries, tourism, etc.)? What should be monitored by the community versus local government unit, outside researchers, or the extension institution? How often should each indicator be monitored and using what techniques?

The group's answers to the above questions are summarized in the following table.

What to monitor	Who monitors	Frequency of monitoring	Methods	Where to monitor
Live coral cover Fish abundance Species diversity	Local monitoring team (LMT) Researchers Extension workers	Semi-annual Quarterly	Standard methods Simplified participatory method	Inside and outside the sanctuary
Seagrass diversity and density Mangrove diversity and density	LMT Researchers	Semi-annual	Standard methods	Inside and outside the sanctuary
Fish catch	LMT	Monthly	Simplified methods Standard methods	Within the village

What to monitor	Who monitors	Frequency of monitoring	Methods	Where to monitor
Water quality	Researchers	Quarterly	Standard methods	Inside and outside the sanctuary
Number of visiting tourists Type of tourists Impact of tourism	LGU Community Researchers	Monthly	Registration (guest list)	
Major events (typhoons, El Niño, etc.)	LMT Scientists	As it occurs	Recording of occurrence	

How should results be summarized, reported, and used?

- Summarized in simple and interesting presentations (graphic presentation)
- Written in simple language, preferably local language/dialect
- Presented in public forums or small group discussions
- Disseminated to stakeholders/big audiences (public)
- Written report to the MCDP and LGU
- Results of monitoring used in assessing effectiveness of management regime or in planning the appropriate interventions

Socioeconomic Monitoring and Evaluation (Site Level) (Group 3)

What are the most critical indicators to monitor, and where should they be monitored with respect to ecological/conservation as well as fisheries objectives?

1. Critical indicators

Fisheries

- Higher harvest/fish catch with equity
- Amount of effort
- Awareness
- Participation and involvement
- Violations and apprehensions

Tourism

- Number and type of establishment
- Number and type of tourists
- Length of stay
- Frequency
- Income from tourism (with equity)

Others

- Sources of income (shifts?)
- Weight of children, birth to 6 years (quality of life)
- Level of environmental awareness
- Amount of participation
- Empowerment
- Number of linkages and advocacy programs

2. Where monitored?

- Community
  - – Resident
  - – Transient
- Nearby communities

What should the community monitor versus the local government unit, outside researchers or the extension institution?

- Core groups/committees may do the monitoring for the communities
- External institutions should monitor impact of their project
- Communities may monitor project implementation

How should each indicator be monitored and using what techniques?

- Frequency depends on variables, e.g., changes in livelihood–annual; evaluation of project impact–3-5 years
- The techniques are participatory techniques, simple techniques, observations, and systematic surveys

How should results be summarized, reported, and used?

- Results should be validated (giving feedback to the community provides an opportunity for verifying the accuracy of data/information)
- Results may be reported in the form of case studies
- Reports may serve as a basis for management and policy decisions and for replication/promotion of CB-MS
- Results may be used for self-evaluation

Governance Monitoring: Planning and Implementation Phases (Site Level) (Group 4)
What are the most critical indicators to monitor? Discuss outcome indicators (changes such as behaviors, attitudes, institutional structures created) and process indicators, both for the planning phase and the implementation phase. Also review outputs discussions regarding key outcomes in each phase of the process.

Community Entry and Planning Phase

- Community needs/resources identified
- Presence and capacity of formal/informal organization
- Allocation of staff and budget for MS
- Community contribution in kind (talent, time, treasure)
- Number of activities and type, and number of people participating
- Active members of organization
- Core group and planning group formed
- Map of sanctuary developed by community
- Resolution/ordinance
- Physical structures developed

Implementation Phase

- Management groups formed
- Launching ceremony held
- Ordinance signed
- Implementation budget allocated
- Management plan prepared
- Fish wardens organized
- Higher level endorsement of ordinance
- Person designated/appointed to assist and monitor community
- Number of wardens, number of patrols, number of penalties
- Presence of patrolling logistics
- Number of apprehensions/convictions
- Fines collected

What should the community monitor versus the LGU, outside researchers, or the extension institution?

Community

- Budget allocated by LGU
- Number of patrols
- Frequency/participation in activities
- Community contribution

LGU

- Frequency of field worker visits
- Effectiveness of regulations
- Success of livelihood activities

Researchers

- How public education enhances effectiveness of regulatory measures

Extension institution

- Same as community and LGU

How often should each indicator be monitored and using what techniques?

- How often: Gather as each indicator occurs and summarize/analyze twice a year
- Techniques: Participant observation, logbook of fieldworkers and management committee, and review of reports

How should results be summarized, reported, and used?

- How to report: Total number recorded, trends over time, summarized data, extension reports to LGU and community
- How to use: Community, LGU, extension institution, and researchers all share and discuss; report in press/media, etc.; develop tools to modify plan/activities to make them more effective; guide in policy formulation and advocacy

Summary of Plenary Discussions

The comments on the four groups' output during plenary were as follows:

Group 1:

The indicators for the process evaluation also need to be qualitative. The number of sites established and the classification of sites into successful and unsuccessful may also be added to the list of indicators along with ecological and socioeconomic ones. It was also mentioned that the approach followed in management planning might also be a good indicator.

Group 2:

Among the ecological indicators listed, primary production may be difficult to monitor or measure. Thus, the participants considered it to be of low priority. The tourism-related criteria were recommended to be listed

under the socioeconomic monitoring criteria, although it was acknowledged that biophysical impacts of coastal tourism should be monitored and evaluated.

Group 3:
There is a need to add attitude indicators to the list developed by the group. Special attention was drawn to the use of children's weight. This was because of the need to be aware of other socioeconomic indicators available at the sites that may provide an indication of the impact of changes in the community, such as those instituted by project interventions. The use of the children's weight reflects children's reaction to changes in the community. The more popularly used infant mortality index cannot be used in the Philippines because there is inadequate information on this parameter.

Group 4:
It was suggested that key informant interviews also be used in governance monitoring.

CHAPTER 7
INDONESIAN FIELD TRIP REPORTS

The workshop participants visited three sites to observe how communities in Indonesia are beginning to manage their coastal resources through MSs. The sites were the villages of Blongko, Talise, and Tumbak, all of which are located in North Sulawesi Province. These are village-level sites of the USAID-BAPPENAS NRM II coastal resources management project (Proyek Pesisir) that were established in 1997. The participants were provided information materials about the sites including brochures and management plans, and observed the activities going on in the area. They spoke with MS leaders and other key informants using the following guide questions during the field visit:

- How does the site benefit (or not) from being designated a CB-MS?
- What problems have the MSs helped address and what were not addressed?
- What are the challenges to make it sustainable?
- What are your recommendations for the community and local support institutions?
- How are the Philippine sites different from the Indonesian sites?
- What are your recommendations for scaling-up?

BLONGKO

Blongko is a small village with a population of 1,250. It is located on the northwest shore of Minahasa, approximately one degree, eight minutes north of the equator. Its approximately 6.5 kilometers of coastline is healthy and productive, bordered by relatively thick and vigorous mangrove. Most of the population lives along the water, and the majority are fishers, although almost all residents both fish and farm. The fishery, both offshore and on the coral reef, plays a significant role in the livelihood of the community. Most fish captured is used for home consumption or sold by the fishers' wives in the local community.

The marine sanctuary covers 12 ha along the coast, and contains a mangrove swamp and part of a coral reef. The concept of developing a MS came about after a field visit by Blongko villagers to a MS at Apo Island in Negros Oriental Province, Philippines. A return visit by the Apo Island village chief and members of the women's cooperative to Blongko enabled an exchange of ideas.

The *kepala desa* (village government head official) of Blongko and the community quickly understood the Apo Island group's description of how their CB-MS effort was developed and implemented. The Indonesians quickly realized the value of the local fishery, and the need to develop a nursery for fish that could help feed future generations. As a result, the community leader(s) worked with Proyek Pesisir staff and community members to collect data, identify a proper site, and develop a local ordinance to regulate the protected area. Within one year, the entire community fully supported the concept, completed technical research, and selected a site. The village also received support from the regional and national governments for the ordinance that the villagers

had crafted. On August 26, 1998, the ordinance was approved and the CB-MS became official.
An information/meeting center, boundary markers, and information signs have already been created. By promoting the CB-MS, Blongko's residents now have a more active role and responsibility for protecting and sustaining marine resources, which directly affect their day-to-day lives. The resource users in Blongko are now becoming resource managers.

While one small sanctuary may not seem like much, if it is used as a model which is replicated widely, it can greatly add to the amount of coral reef area protected within a nation. It also has positive financial implications over time. With budgets being cut due to the national economic crisis, CB-MSs become an attractive and less costly means of marine ecosystem and biodiversity protection. The majority of costs–like the benefits–can be internalized within the community rather than be rolled into national budgets.

The Blongko marine sanctuary is miniscule in a global context, but it is extremely important as an example of success in a country such as Indonesia, which contains 20 percent of the world's coral reefs and the highest marine biodiversity in the world–the underwater rain forest.

Based on direct observations and interviews with the *kepala desa*, the management committee of the sanctuary and other informants in the community, the workshop participants came up with the following information about the MS.

How does the site benefit (or not) from being designated a CB-MS?
The workshop participants agreed that the Blongko Marine Sanctuary exhibits the characteristics of a CB-MS. The process of developing and establishing MS was very participatory; the community and village government worked together to select the location of sanctuaries, placed the marker buoys, surveyed the coral condition of MS and made decisions on the regulations of the sanctuary. In this manner, the community was able to understand the benefit of a sanctuary and improved their awareness of the coastal environment and its relation to improved coral cover and fisheries.

What community problems have been addressed (or not) by the CB-MS? Should the CB-MS attempt to address these other problems? Why or why not?
The MS addresses illegal and destructive fishing activities. The participatory establishment of the sanctuary enabled community members to work closely with the government, and thereby gain government understanding and support for coastal management. The MS is perceived by the community as addressing the problem of low fish catch, and there is a strong sense that fish catch will increase in the future. Other problems also addressed by the MS include sanitation and coastal erosion control.

What challenges do they have in being sustainable?
The future challenge is maintaining the active support by the stakeholders. The support will be sustained if the goals of the MS can be achieved. The current difficulty is that the sanctuary is becoming a magnet for 'outsiders' and the challenge now is to protect the sanctuary from poachers. The need to integrate the concept of MS with environmental education is also considered a challenge by the participants.

What are your recommendations for the community and local support institutions?

To sustain the support and management of a MS, the participants recommended the following:

- The community needs to formulate guidelines for reasonable fees for tourists and incorporate these into a plan or ordinance.
- There is little evidence of university involvement and interest in coastal management. The participants encouraged more participation from the academic institutions in MS monitoring, evaluation, and public education.
- There is a sense that those who are really involved in the sanctuary implementation and protection are those living along the coast and fishers. Participants recommend expanding information, communication, and education awareness to upland dwellers. One potential threat to the sanctuary is upland agricultural practices. The participants suggested encouraging more sustainable agriculture, such as Sloping Agriculture Land Techniques (SALT).
- Another issue related to coastal management in general, and the MS in particular, is sanitation/hygiene. The participants felt that this should be given more attention for the overall benefit of the coastal waters and community health.
- Coastal erosion and sedimentation are also seen as related to the MS. To reduce sedimentation and erosion, the community should develop measures of re-greening the rivers near the village.

How are the Philippine sites different from the Indonesian sites?

The Indonesia MS model (such as Blongko) and process is largely drawn from the Philippines, where the approach is participatory, community based and small scale. However, the Blongko Marine Sanctuary was characterized as being more community based than Gilotungan Island. Blongko is more similar to Olango Island Bird Sanctuary where the community participation is strongly evident. The overall difference in the process of MS establishment is that the Philippine initiative is seen as being primarily government driven (DENR), while the Indonesian initiative is viewed as being community driven.

What are your recommendations for scaling-up?

In order to scale-up any MS, the participants identified the following points for consideration:

- There is a need for legal instruments that support and regulate MSs.
- The government needs to establish a permanent fund to support the establishment and maintenance of MSs.
- Establishing a MS requires an integrated approach. A functional coordination scheme needs to be in place to support the scaling-up of MSs.
- There should be an emphasis on developing school curricula focused on MSs in order to raise public awareness and understanding.
- There is always a need for general information, education, and communication on the importance of coastal resources and the environment.

TALISE

Talise is a Proyek Pesisir field site where the community recently established a CB-MS. The process of establishing and implementing a MS in Talise began in 1997 with issue identification (potentials and problems) which led to the development of a coastal resources profile and management plan. The village Integrated Coastal Resources Development and Management Plan calls for the establishment of a MS to protect marine resources, and provide community benefits through improved fisheries production and ecotourism development. The total area of the Talise Marine Sanctuary is 22 ha (divided between 10 ha of core zone and 12 ha of buffer) and consists of reef flat, reef crest, reef slope, seagrass, and mangrove habitat.

The Talise Marine Sanctuary was inspired by the Blongko and Apo Island Marine sanctuaries and was formally established by village ordinance after approval and agreement by the community. Proyek Pesisir facilitated the process of establishing the MS by conducting meetings, coral reef monitoring training, cross visits, public education, seminars on environmental law and provided the community with the legal consultant to help draft the village ordinance. A field extension worker was also assigned with the community to catalyze the process.

The participants had an opportunity to interact with the community members and came up with several recommendations for the Talise Marine Sanctuary.

How does the site benefit (or not) from being designated a CB-MS?

The Talise Marine Sanctuary is newly established, so it is still too early to see changes in coral cover and fish abundance. As in Blongko, the community also perceived an increased production of fish outside the sanctuary and increased coral cover inside the sanctuary. Some of the benefits of a CB-MS are evident within the village. Participation in a manta-tow training made the village aware of the status of their reefs and motivated them to participate in delineating the MS and other related activities. Community signboards have been posted in various areas, and information sheets on the sanctuary are placed in the boat taxis that go to and from the island. A joint management structure between the community and the government was formed and is currently operating.

What problems did the CB-MS address in the community, and what coastal problems are not being addressed? How should they address these other problems?

The problems addressed by the MS are bomb (explosive) fishing and cyanide fishing activities. The MS also addresses village social issues such as low environmental awareness, lack of communication between the community and the pearl farming industry, and insecurity of land tenure/ownership. Through the process of MS planning and management, the CRMP facilitated the process of providing land titles to 220 households in Talise.

What challenges do they face in making the sanctuary sustainable?

In order for the sanctuary to become sustainable, education and awareness programs at the *dusun* (subvillage) level and with adjacent villages need to be continued and sustained.

An income-generating program needs to be developed for the community in order for the sanctuary to be

sustainable. One potential income-generating project in the island is ecotourism. The CRMP-Indonesia needs to work with the department of tourism and private sector tour operators to facilitate the development of ecotourism in the village.

Another challenge for the management committee is to maintain an effective surveillance of the MS. The sanctuary is located away from the Dusun 1 settlement; therefore, it is difficult to maintain a close watch and guard the sanctuary against poaching and robbing of buoys.

More support from higher levels of government in the form of funds for implementation, technical supports, and tourism development will also sustain the MS.

What are your recommendations for the community and local support institutions?

To sustain the on-going benefits of the MS, the participants recommended the following:

- Develop and implement a fish catch and reef monitoring scheme
- Develop an ecotourism project which offers integrated tour packages (along the coast and in the forest). Other ideas include canoeing in the mangroves, maintaining the Dutch style of the village hall for tourism, protecting the watershed for water resources, and involving women as much as possible in tourism and water resources management.
- Continue work on the demonstration agroforestry site
- Extension officer phase-out while encouraging local sectoral agencies/NGOs to provide more support

How are the Philippine sites different from the Indonesian sites?

The participants identified several differences between the Philippines and Indonesia on the CB-MS background and development:

- The government structure between these two countries is different. In Indonesia, the village has much power.
- Indonesia still has more natural resources than the Philippines.
- Process of initiating and developing the sanctuaries by outside agency is similar. However, the Indonesia example only has support from the CRMP-Project management unit and one outside NGO. The Philippines has been able to garner more outsider support.
- In Indonesia, academia (university) is not as involved in the social preparation aspect as in the Philippines.
- The MS in Indonesia is integrated into the management plan at the village level and for the duration of 20 years. No separate MS management plan is developed.

What are your recommendations for scaling-up?

The participants had the following recommendations for successful scaling-up of activities:

- Institutionalize the development of coastal management as a basic service of (local) government activities
- Get academia more involved (e.g., long-term monitoring, data management) and apply for grants to do

extension work

- Convince the government to sponsor community service (where recent college graduates are contracted to catalyze village development) programs along the coastal areas
- Have local government request funding from the Department of Marine Affairs and Fisheries for replication of MSs in other sites

TUMBAK

The process of developing a MS in Tumbak began in 1998 when the CRMP-Indonesia conducted a series of activities–such as training, public education, and cross visits–between the village of Tumbak and the communities from Blongko, Bentenan, and Talise.

In 1999, a location for the proposed MS was identified, and a series of manta-tow training and monitoring trips was conducted at the field site. The process of developing the ordinance began mid-1999 and was stimulated by the past success of establishing a MS in Blongko.

The coastal profile and the coastal resources management and development plan were approved in November 1999. The management plan calls for the establishment of the MS in the village. An annual work plan was submitted for approval and funding by the local government (the Minahasa Regency). The village is also seeking approved funding through a block grant from Proyek Pesisir.

At the moment, the community and the village government have reviewed the draft ordinance of the sanctuary. The ordinance and the sanctuary are waiting for formal ceremonial approval and inauguration proposed for November 2000 by the provincial government.

Based on the open discussion with the village head, the management committee, and the village informal leader, the workshop participants came up with the following:

How does the site benefit (or not) from being designated a CB-MS?
The villagers of Tumbak proudly responded to the question by stating that they now have experience in MS management. In addition, the village began to become well known in the area, as a result of the large numbers of visitors and media coverage of work being done in the village. There is a sense of pride that this village is known by other communities in, and outside, the province.

Through the process of establishing a MS, the community benefited from the opportunity and the ability to work among themselves and with villagers from other village (Bentenan, Talise, and Blongko). The benefit of MS establishment to the village is the coral reef protection. Even though it is too early to see an increase of fish catch, the community perceived an increase in fish catch from the establishment of the MS. Another social benefit from the MS development is improved law enforcement in the village. Now, almost 90 percent of the community support the development of an ordinance to regulate activities inside and outside the sanctuary.

What problems have these CB-MSs helped address in these communities, and what coastal problems are they not addressing? Should they address these other problems and how?

The problems addressed by the MS are the low fish catch and coral reef depletion near the village. In terms of social benefits, the problems most directly addressed are the lack of environmental awareness and low level of capacity for the community to manage and protect coral reefs.

The major problem not being addressed in the village is coral mining, indicated by stacks of coral in the village. While the villagers claim they do not mine the coral in front of their village, they do mine coral outside the village. Sanitation and clean water are other problems currently not being addressed through the MS.

What challenges do they have in being sustainable?

The CRMP-Indonesia and local government should strengthen the local community groups interested in the MS, and the management committee to continue monitoring and enforcing the MS. This would aid in decreasing the environmentally destructive activities in the village. The management committee and village government should also work together in formalizing the MS ordinance.

What are your recommendations for the community and local support institutions?

To sustain the MS and gather more support from the community, the participants suggested:

- There is a need to develop monitoring and evaluation skills among the village management committee.
- There is a need to find ways to improve seaweed processing in the village.
- The higher levels of government need to work on improving the road from the village to enable better marketing of fish and seaweed.
- Stakeholders in the village need to be brought together to improve community sanitation and work with related agencies to access potable water.
- In order to properly enforce the MS, there is an immediate need to approve the ordinance.

How are the Philippine sites different from the Indonesian sites?

The difference in sanctuary management between the Philippines and Indonesia is that Philippine communities do not depend upon the government for MS management, nor for inter-institutional cooperation. The Indonesia model could be adapted to the Philippines. In Indonesia, the village committee is under the auspices of local government. The government involvement and support for the MS comes from the central government, through the provincial government, and down to the village level.

What are your recommendations for scaling-up?

Institutionalize MSs into the government program of activities

Summary of Plenary Discussions

The roles of extension officers who are placed in the community full time have proven to be important tools in building the local capacity of the community. Through extension officers, the coordination of activities focused on MS development become easier, thus quickening the process. Due to the extension officers' important role, there needs to be a slow pullout from the community as CRMP-Indonesia begins to wind down field activities. This should slowly reduce the dependence of the community upon the extension officers. Some participants suggested establishing a government extension officer in the village. Another strategy is to appoint and train villagers to become assistant extension officers to slowly take over the CRMP extension officer's role in the community.

Establishing viable livelihood projects is an important aspect that needs to be developed alongside the sanctuary. There is a need to diversify livelihoods away from the typical concept of a small *warung* (convenience store). Tourism can be a good alternative livelihood project as well as promoting conservation, because tourism often depends upon the environment to attract visitors. Ecotourism development as an alternative livelihood should be developed and approved carefully in consonance with CRM plans in the area. Care must be taken to ensure the protection of community resources in the village. Public access is the primary problem that needs to be addressed in Minahasa, along with ecotourism project.

CHAPTER 8

COMPARISONS AND RECOMMENDATIONS FOR THE FUTURE FOR CB-MSS IN EACH COUNTRY

RECOMMENDATIONS FOR THE FUTURE OF CB-MSS IN THE PHILIPPINES

Discuss ways to build institutional support, capacity, and budget for CB-MSs in the Philippines.
The various levels of government can facilitate the following:

- National-level allocation of funds–exists
- Local government–may/should increase allocation for CRM from their development fund by integrating CRM (with MS specifically) into the development plan and LGU structure
- Capability building, especially preparation of proposals
- Strengthening of networking/creating linkages among existing networks including Phil Reefs, CRMNET (Coastal Resources Management Network) and PAMANA KA SA PILIPINAS

Academia can increase involvement by incorporating MSs into university extension programs.

POs, once incorporated, can then register with the Securities and Exchange Commission for funding purposes.

The private sector/business sector can also be attracted to the concept of the MS by market initiatives such as visitors' fees, users' fees, etc.

The NGOs can also be tapped through MOUs with the LGU for cost sharing that will enable them to jointly:

- Strengthen network and capability enhancement of NGOs
- Standardize tools for monitoring (done with university and LGU)

What benefits are there to regional cooperation?
Development of capability-building information/sharing models:

- Local government
- University-based technical advice
- Enterprise development
- Coordination of efforts such as joint programs to ensure some degree of commitments and accountability, and standardization of methods for surveying and monitoring

Make recommendations on priority topics for regional cooperation.

- Community monitoring

- CB-MS management techniques
- Institutions built for sustainability
- Community organizing techniques
- Environmental education
- Replications (scaling-up)
- CRM information network

Is the Philippines CB-MS model sufficiently successful and robust to warrant replication in a range of community settings in North Sulawesi and other locations in the region?
Yes, the model is robust, but the Philippine model should be tailored to suit specific sites in North Sulawesi.

The Philippines lacks a model for scaling-up. Establishing a network of CB-MSs all over the Philippines is just beginning. A government project led by the University of the Philippines Marine Science Institute titled Enhancing Sustainable Fisheries through Improved Marine Fishery Reserves aims to develop implementing guidelines to improve the establishment of marine fisheries reserves in LGUs as per permission of the Fisheries Code of 1998, and to formulate a plan for a national fish sanctuary strategy and network in the Philippines.

Are CB-MSs proving to be effective in catalyzing more comprehensive coastal management initiatives at the community scale?
Yes, but it is not the only way. Artificial reefs, giant clams, and other fisheries stock-repopulation/enhancement efforts are examples of other initiatives.

Are CB-MSs catalyzing effective coastal management at larger geographic scales?
Yes, as entry points, because it is manageable (small scale) and results are perceptible.

Recommendations for the Future of CB-MSs in Indonesia

Discuss ways to build institutional support, capacity, and budget for CB-MSs in Indonesia.

Institutional support needs the following actions to take place:

- The Kabupaten Task Force needs to provide further education on the importance of coastal resources management, especially the importance of MSs to the executive and legislative members in the province and regency levels.
- The management committee needs to do more socialization of MSs to the community inside and outside the village and to the local NGOs and universities.
- There is a need to establish a single institution to give special attention to the MS initiative (e.g., independent institution).

Capacity building:

- Training, cross visits, formal study programs (on CRM) for local-level government (regency level) offi-

cials

Budget:

- Secure funds from local government's yearly budget (national or regional budget allocations) and additional external sources (grants)

What benefits are there to regional cooperation?

- Experiences and transfer of knowledge between the two countries because of the similarities in their ecosystems
- Regional economic and tourism industry
- Cooperation for joint training and technical support

Make recommendations on priority topics for regional cooperation.

- Sharing information and experience between communities
- Formation of a study center on CB-MSs through university networking (e.g., Silliman University and Sam Ratulangi University)
- Program cooperation between NGOs of the two countries for CB-MSs
- Networking among Philippine and North Sulawesi practitioners

Is the Philippines CB-MS model sufficiently successful and robust to warrant replication in a range of community settings in North Sulawesi and other locations in the region?

The CB-MS model of the Philippines can be successfully adapted to North Sulawesi, considering similarities in culture, autonomy law, economic benefits, and environmental aspects of both areas, as illustrated by the adaptation of the model to the local social background and environmental conditions of Blongko, Talise, and Tumbak.

Are CB-MSs proving to be effective in catalyzing more comprehensive coastal management initiatives at the community scale?

Yes, indeed! Proof of its effect in catalyzing CRM initiatives include:

- General public awareness
- Communities are more concerned and build commitment to the CB-MS because of environmental awareness
- A sense of ownership developed by the community and local government
- Positive impacts to other villages due to MS establishment
- Possible potential for small enterprise development (e.g., ecotourism)
- Perceived income and well-being of community

Are CB-MSs catalyzing effective coastal management at larger geographic scales?

Could be, especially for other villages, municipalities, and provincials.

COMPARISON AND CONTRAST BETWEEN THE PROCESS OF ESTABLISHING CB-MSS IN THE PHILIPPINES AND INDONESIA

What are some ways to build support capacity and budget in the two countries?

PHILIPPINES	INDONESIA
Government • National allocation–exists • Local government–may/should increase allocation for CRM from their development fund by integrating CRM (with marine sanctuary specifically) into development plan and LGU structure • Capability building to prepare proposals Academia–increase involvement by incorporating CB-MSs into extension programs of universities POs–get them incorporated, registered with the Securities and Exchange Commission for funding purposes Private Sector/Business Sector–tapping through creative means, e.g., visitor's fees, user's fees, etc. NGOs–MOA with LGU for cost-sharing Strengthen network and capability enhancement of NGOs Standardization of tools for monitoring (done with university and LGU)	Institutions–socialization by Kabupaten Task Force for executive and legislative members (Regional Peoples Consultative Assembly) in regency and provincial levels, and management team in village levels; local NGOs; and universities. We need to establish special institution for CB-MSs initiative (e.g., independence institutions) Capacity–training, cross-visits, and formal CRM studies for regency participants (officers) Budget–secure yearly budget from local government and additional external sources (grants)

What are the benefits from regional cooperation for the two countries?

PHILIPPINES	INDONESIA
Capability building/sharing models	Sharing experience
University-based technical advice	Transfer of knowledge
Enterprise development	Problem understanding due to closeness of the ecosystem between the two regions
Standardization of methods for monitoring, etc.	Aid regional economic and tourism industry
Coordination of efforts	Cooperation for joint training and technical support
Joint programs–ensures some degree of commitments and accountability	

Recommendations on priority topics for regional cooperation?

PHILIPPINES	INDONESIA
Community monitoring	Share information and experience between communities
CB-MS management techniques	Study CB-MSs through university networking (e.g., Silliman and Sam Ratulangi University)
Institutions built for sustainability	Program cooperation between NGOs of the two countries for CB-MSs
Community organizing techniques	Networking between Philippine and North Sulawesi practitioners
Environmental education	
Replications (scaling-up)	
CRM information network	

Is the Philippine model sufficiently robust and successful to undergo replication in North Sulawesi, Indonesia, and other locations in the region?

PHILIPPINES	INDONESIA
Yes, the model is robust, but the Philippine model should be tailored to suit sites in North Sulawesi.	Success of CB-MS in the Philippine can be adapted in North Sulawesi. This is true because of the similarity of culture, laws, economic benefits, and environmental aspects. An example is the ability to adopt, develop, and adjust according to the local social and environmental conditions, e.g., Blongko and Talise.
The Philippine model has problems with scaling-up	
Establishing network of CB-MS	

Are CB-MSs proving to be effective in catalyzing more comprehensive coastal management initiatives at the community scale?

PHILIPPINES	INDONESIA
Yes	Yes, indeed! Prove to be effective in catalyzing CRM initiative! Community more concerned/committed to environmental awareness Sense of ownership Potential of small enterprise (ecotourism) Perceived income and well-being for community

Are CB-MSs catalyzing effective coastal management at larger geographic scales?

PHILIPPINES	INDONESIA
Yes, as an entry point because it is manageable (small scale) and results are perceptible	CB-MS can be effective for larger areas, especially for other villages, municipalities, and provinces

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ANNEX 2: WORKSHOP AGENDA

Philippines-Indonesia Workshop on Community-Based Marine Sanctuaries
(Cebu, Philippines–September 4-7, 2000; Manado, Indonesia–September 8-11, 2000)

Workshop Venues:
Montebello Villa Hotel, Banilad, Cebu City, Philippines; and Hotel Century, Manado, North Sulawesi, Indonesia

Workshop Organizers:

Coastal Resources Center, University of Rhode Island

Philippine Council for Aquatic and Marine Research and Development, Department of Science and Technology

USAID-BAPPENAS Indonesian Coastal Resources Management Project, North Sulawesi Province Field Office

Coastal Resources Management Project-Philippines

Workshop Objectives:

In relation to community-based coastal resources management and community-based marine sanctuaries (CB-MSs):

Share experience between Indonesia and the Philippines

Discuss results of the Philippine focus group sessions and field research

Discuss lessons learned concerning success at a given site and for promoting institutional replication in other villages

Elaborate on guidance for field workers and for institutions interested in replicating this process

Describe future challenges for the Philippines and North Sulawesi, Indonesia

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General Schedule:
September 4

AM – PM	Arrival and registration at Montebello Hotel, Cebu City
7:00 PM	Welcome dinner
	Welcome remarks by R. Guerrero, PCAMRD
	Welcome remarks by B. Crawford, URI-CRC
	Welcome remarks by C. Courtney, CRMP-Philippines
	Brief overview of workshop agenda, goals, and first day logistics (M. Balgos, B. Crawford, C. Pagdilao)
	Participant introductions

September 5

8:00 AM	Administration and logistics for the workshop (PCAMRD)
8:30	Overview of the workshop in context of the project (B. Crawford)

	Overview and summary of project activities to date
	Outputs expected from the workshop
	Results of focus group discussions, field research, Indonesian training
9:00	Progress on establishing models of CB-MSs in North Sulawesi and establishing a local program for its replication (BAPPEDA and J. Tulungen)
	Questions & Answers (Q&A)
9:45	Overview of Philippine context and progress for CB-MSs (C. Pagdilao)
	Q&A
10:30	BREAK
10:45	***TOPIC 1:*** *The ideas and theory behind CB-MSs: What are their purpose and benefits? Why should they be promoted as a CRM intervention as opposed to other kinds of interventions? How do they function ecologically? What ecological, social, and economic problems do they help solve?*
	Panel lead off remarks for small group discussions[1]
	A. White – Theory/ecological function
	M. Balgos – Benefits/success measures from FGD
11:00	Small group discussions[2]
12:30 PM	LUNCH
1:30	Plenary report (10 minutes each)
2:15	***TOPIC 2:*** *What is the process at the community level? What are the preconditions and external or internal forces that affect success?*
	Panel lead off remarks for small group discussions[3]
	M. Balgos – The process: Results of the focus group discussions
	R. Pollnac – Factors influencing success from the field research
3:15	BREAK
3:30	Small group discussions
4:30	Plenary discussion
5:15	Review of field trip plans for the next day and group assignments (C. Pagdilao and M. Balgos)
6:30	DINNER

[1] The panel will be a series of very short opening remarks by selected resource persons–no more than 10 minutes each, two overheads maximum–as an introduction to the discussions in small groups that follow. These lead off remarks should be short summaries or provocative "hypothesis" by each panelist that help fuel and guide discussion, then immediately break into groups for discussion.

[2] For small group discussions there will be three groups–two groups of mixed Indonesian and Filipinos, one group only of Indonesians who are non-English speakers with one bilingual spokesperson for report outs.

[3] The panel will be a series of very short opening remarks by selected resource persons–no more than 10 minutes each, two overheads maximum–as an introduction to the discussions in small groups that follow. These lead off remarks should be short summaries or provocative "hypothesis" by each panelist that help fuel and guide discussion, then immediately break into groups for discussion.

EVENING — Core group[4] and PCAMRD Secretariat meet to review the day, needs, and preparations for the following day, changes in schedule suggested, etc. Core writing group decide on writing assignments and do not go on field trip the following day–but spend the day writing outputs.

September 6

8:00 AM — Depart for field trip to two CB-MS sites near Cebu City–Olango Island and Gilotungan Island (Participants will be split into two groups–each goes to both sites. Box lunch or meal will be served in the field.)

Questions to be asked during meeting with local officials and management committee:

How does the site benefit (or not) from being designated a CB-MS?

What problems have these CB-MSs helped address in the communities?

What challenges do they have in being sustainable?

Give some recommendations for the community and local support institutions?

EVENING — Groups work on short reports of the field visits to be presented the following day. Core group and PCAMRD secretariat meet–debrief and daily assessment.

September 7

8:00 AM — Housekeeping, administrative needs, concerns, announcements (PCAMRD)

8:15 — Presentation and discussion of group reports on the field visit

9:00 — Core group hands out outputs written up the first day for review by participants. Comments should be noted/marked/written and the document discussed at the end of the day–written comments/edits also submitted at the end of the day.

9:15 — ***TOPIC 3****: How do we build local institutions and sustainable programs that nurture replication? How do we structure and design community-based extension programs? What should be the guiding philosophy for community-based extension programs?*

Panel lead off remarks for small group discussions:

O. Arciaga, Haribon – NGO community extension programs

V. Soliman, BUCF – University community extension programs

N. Pinat, Bohol; M. Teves, Negros Oriental; J. Muñoz, BFAR – Government community extension

North Sulawesi Government Representative – Planning a government program

B. Crawford – Lessons on extension from other fields

10:15 — BREAK

10:30 — Small group discussions

11:30 — Plenary and discussions

12:00 PM — LUNCH

[4] There will be a team designated as a core group to write up outputs of the workshop and supported by the PCAMRD secretariat. Those on the core group who have laptops need to bring them. Core group needs to be good writers and are suggested to be Balgos, Crawford, Pagdilao, Tulungen, and White–this group will be co-editors of the proceedings.

1:00 ***TOPIC 4:*** *Monitoring and evaluation: Within a site, across a portfolio/program*

Panel lead-off remarks for small group discussions (15 minutes each):

A. Uychiaoco – Ecological monitoring

R. Pollnac – Socioeconomic monitoring, and monitoring and evaluation in multiple sites

N. Pinat – LGU monitoring and evaluation

1:45 Small group discussions

3:30 BREAK

4:00 Plenary discussion

5:00 Feedback discussion on written outputs of previous day

5:30 Core group and PCAMRD Secretariat meet – daily debrief and assessment

6:30 Farewell dinner

Entertainment – The ICM Steps

– Experiential learning of Philippine meeting, ice breakers and other fun and games

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September 8

AM Depart for Manado via Davao

Oleh-oleh (pasalubong) shopping in Davao and next to airport

2:30 PM Check into Hotel Century, Manado

7:00 Welcome to Manado dinner

Philippine Consul General invited to speak

North Sulawesi governor or vice-governor invited to speak

Short briefing on following day field trip (B. Crawford and J. Tulungen)

September 9

8 AM Field trip to Indonesian field sites Blongko, Tumbak, Talise, and Lembeh Straits/BAPPEDA replication group[5]. Questions to be asked:

How does the site benefit (or not) from being designated a CB-MS?

What problems have these CB-MSs helped address in these communities?

What challenges do they face in being sustainable?

Recommendations for the community and local support institutions.

Additional questions for Indonesian field visits:

How do the North Sulawesi sites differ from the Philippines?

What do you see as some of the special challenges faced in North Sulawesi to scaling-up–creating a community-based extension program?

[5] We will split up into three or four groups. Each group goes to a different field site and essentially asks the same questions as were asked at the Philippine sites. North Sulawesi sites are not as mature/as old as the Philippine sites so some cross-site comparisons will be made in the following day's discussions.

Special assignment for the Lembeh Straits group: Lembeh Straits is an area targeted for replication of CB-MSs by BAPPEDA–Regional Development Planning Board (a specific site or community out of a dozen in the area may or may not have been selected by this time). The group agenda will be to visit BAPPEDA offices (Provincial and in Bitung City), look at secondary data (maps, statistics on population/fishers), talk to Kungkungan Bay Resort/dive operators, and visit one or more candidate communities (the purpose being to apply some of the lessons extracted from the Cebu discussion and see if they can be applied when getting started in a new place), and make recommendations to BAPPEDA.

How would the process need to be adapted to Lembeh Straits and the tourism context there?

What should be some initial priorities for BAPPEDA?

EVENING — Groups work on short reports for the following day
Core group and secretariat meet to review the day and plans for tomorrow
Handout outputs from previous days for review

September 10

8 AM — The day will start late to allow participants to attend Sunday church services, if desired.

10:30 — Group reports will be presented followed by detailed discussion of the place visited and questions

Group discussions following each report to be approximately 30-45 minutes. Last group to report would be Lembeh Straits/BAPPEDA group followed by detailed discussion of challenges of scaling-up in Indonesia.

12:30 PM — LUNCH

1:30 — Group discussions on the following topics:

Comparative discussions of Indonesian and Philippine experience

Develop detailed guidance outputs for practitioners (outline of a field guide)

Discuss suggested outline for the workshop proceedings

Discuss ways to build institutional support, capacity, and budget

Discuss the benefits and make recommendations for additional regional cooperation, etc.

Workshop evaluation

7:00 — Farewell dinner (Kalisay – Malioboro Restaurant followed by Karaoke competition)

September 11

Pasalubong (oleh-oleh) shopping in Manado

Philippine participants depart for the Philippines

ANNEX 3: PHILLIPPINES-INDONESIA
COMMUNITY-BASED MARINE SANCTUARIES WORKSHOP

4 -11 September 2000

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ANNEX 4:
SUMMARY OF PARTICIPANT EVALUATIONS OF THE WORKSHOP

The participants of the workshop were asked to give their feedback on how the workshop was conducted by answering the following questions:

1. How well did we accomplish the following workshop objectives?

Most of the participants (78-99 percent of 32 respondents) considered the workshop objectives well accomplished by giving a rating of either good or very good.

2. How useful were the following activities in facilitating the sharing of experiences in CB-MSs between Indonesia and the Philippines?

The country paper presentations, panel leadoff presentations, plenary discussions, and small group discussions were considered to be either useful or very useful by all the participants. There were a few (three of 32 respondents) who considered the field trips in Indonesia and the Philippines not so useful.

The following were the comments on why each activity was not useful, somewhat useful, useful, or very useful.

a. Country paper presentations

Provided information on the concepts/salient features, cultural, and other management contexts, strengths and weaknesses, and uniqueness of various initiatives

Provided common features and differences between the two countries

Provided successful and unsuccessful experiences

b. Panel leadoff presentations

Provided guidance, introduction, information, points or stimuli for discussion

Provided the workshop participants with information about results of studies and actual experiences, and some dos and don'ts

Some presentations were too long

Some presentations were not focused

Some presentation were more useful than others

Time for questions after each presentation

c. Plenary discussions

Key concepts, issues, and challenges were discussed/validated

Validate the topics/concerns discussed in the focus group discussions

Served as an opportunity/venue for interaction, and for clarification/validation of "gray" areas

Best way to exchange major ideas

It was a time for more sharing and learning of ideas and experiences

Gave opportunity for participants to learn about results of the other groups' discussions

It would have been better if there was more time given to it

While it gave an opportunity to hear what other group discussed (useful for informational purposes), it

did not add much additional value to the outputs

Filipino participants tend to be limited by "hang-ups" from experiences, and there was a tendency to micro-focus and forget main objectives

Filipino participants should have exerted more effort to be understood by Indonesian participants, rather than spend time squabbling over some details

d. Small group discussions

Issues and challenges were discussed in detail

People were less inhibited, thus there was more sharing

There was sharing of insights/experiences with other participants

Smaller groups are better for sharing

Can elicit wider participation

Provided a more focused discussion

Enabled the participants to learn more about the two countries' CB-MS sites

OK, overall, but could have been better if our Indonesian friends could have related better–factor here is not the interest, but more of some degree of technical language barrier or problem

Best way to refine points on various topics

Participants were able to share experiences, concerns about, and hopes for CB-MSs–more time would have allowed more fruitful and useful discussions

Probably where most of the sharing and best outputs were generated

Allowed interactions among Indonesians and Filipinos, and among people of different responsibilities and agency affiliations working on CB-MSs

Gave a sense of responsibility to be more active

Enhanced participation

e. Field trips

Philippines

Management options were discussed

In the beginning, I thought the field trips were useful. But in retrospect, it would have been more useful to have chosen, say the Apo Island MS, where university and NGO participation and cooperation would have been more evident. In other words, one successful and one unsuccessful site, maybe. Of course there were many considerations for site selection.

Learned much from it (successful or unsuccessful)

We should have done only one site per person because there was not enough time for two sites.

Provided an opportunity for getting actual data on what we were discussing

Useful not only for the needed break, but for learning first hand what is going on in an area

Gave an opportunity to see what the LGU, CRMP, and others have done on CB-MS establishment

I have not been to these sites.

Added reality to the discussions and highlighted the difficulty of CB-MS management

It allowed the participants to observe what was going on in the sites.

Good overall; it was an opportunity to see a living example to back up discussions.

To see and learn by direct observation and discussion with the local community

For comparison with other sites

Learned by observing and getting information, a tool for improvement

For learning about successful CB-MS experiences in the Philippines

Indonesia

Learned much from it (validated the reports on MPA, POs, culture, tradition, etc.)

Only really good way to gauge something is to see it for yourself

Provided an opportunity for getting actual data on what we were discussing

Not only for the needed break, but for learning first hand what is going on in an area

Provided some basis for comparison and areas for improving future implementation

Showed reality and newness in Indonesia

Provided a good comparison with Philippine experience. Provided affirmation that what works in Indonesia is on the right track

For both trips, seeing the actual sites and talking to people involved in CB-MSs drove home the lessons effectively more than the discussions did.

For comparison of sites in the Philippines and in Indonesia

For development of CB-MSs and improvement of knowledge

Provided an opportunity for sharing of experiences on the management of CB-MSs.

3. The participants rated the food, lodging, and workshop rooms in the two workshop venues as follows:

	Rating
Philippines	
Food	Poor-Fair
Lodging	Fair-Good
Workshop rooms	Good
Indonesia	
Food	Good
Lodging	Good-Excellent
Workshop rooms	Good-Excellent
Philippine workshop	
Communication/information before the workshop	Good-Excellent
Communication/information during the workshop	Good-Excellent
Secretariat support	Good-Excellent
Indonesia workshop	
Communication/information before the workshop	Good-Excellent
Communication/information during the workshop	Good-Excellent
Secretariat support	Good-Excellent

4. Do you have recommendations on how we could improve the conduct of this activity?

Things went really well

Provide “ice-breakers” between presentations

Provide guidance on the length of presentations to be given

Provide handouts after presentations

Provide a directory of participants

Proceedings of each activity should be provided the participants the following day

Appoint small group facilitators ahead of time so they can familiarize themselves with the materials/topics

In an ideal world, we should have spent more time on each session and involved more participants. But given the circumstances, I personally think that everything was well prepared and was very impressive.

There should be flexibility in time management: ask and listen, observe participants' movements to determine level of absorption of topic being discussed.

The conduct of the workshop is good, but there were too many panel discussions and less time for group discussions in one of the sessions.

The schedule was too tight and overloaded.

Perhaps more time could be devoted to the Q&A portion

Give more time for small group discussions and/or plenary sessions

Hold the workshop on weekdays only

Generally very well done by all concerned. The only improvement could be to simplify slightly the number of questions in each topic and to clearly differentiate topics. Especially for the Indonesians, the question list was too long which forced some discussions to move too fast.

During field trips, it would help if interviews could also be made with other stakeholders, not only those who give presentations.

Conditions like weather should be considered for the field trip

Provide Philippine participants more exposure to Indonesian experience/situation (no matter how "new" this may be)

There should be more time to visit the sites and for participants to stay in the villages.

English was clearly a limiting factor for Indonesian involvement in the discussions, but the workshop provided a good opportunity for them to learn the richness of Philippine CB-MS experience.

Longer training in English for Indonesians so they could participate more actively in the discussions.

Language barrier for Indonesian participants needs to be addressed. There is a need for improvement so that they can be more active and efficient/effective during discussions and sharing.

The activity should be made more lively.

There should be more time for social events (no night discussions).

Consider conducting the workshop jointly with the communities/villages

Put together report/proceedings of the workshop

Disseminate the workshop output to other institutions

Continue this activity because of its importance and because the [Indonesian] government does not have enough funds for scaling-up

None

5. What type of follow-up activity would you like to happen after this workshop?

Completion and distribution of proceedings in a timely manner as a useful and well-edited reference

Distribution of workshop proceedings (including some group pictures and video footages, if possible) to workshop and focus group discussion participants

Dissemination of workshop results to all levels (village, regency, and provincial) for the improvement of CB-

MS programs

Summing up of insights learned and problems encountered

Putting into local, national, and global contexts the learnings gained from the workshop

A workshop on monitoring and evaluation; this was not given enough time for a detailed discussion of the issues.

More exchange visits from both sides including community-level sharing and discussion/cross visits

Organization of on-the-job training for Indonesians in various CB-MS sites in the Philippines

Come up with a list of good common practices that participants can refer to. There is a need for some sort of reference handbook that people can go back to (perhaps a workbook format).

Sharing of information on the MPAs in Bunaken National Park and Sayihe Talicud Island

Assess the results of Indonesian initiatives after 2-3 years

Continuous exchange of information and learnings; networking among Indonesian and Philippine participants

Circulation on the Internet of a regularly updated list of publications/working papers on both the Philippine and the Indonesian initiatives (or even the papers themselves, e.g., in Adobe Acrobat format) so that participants are updated on the progress of initiatives

Hold focus group discussions among CB-MS practitioners as often as possible

Evaluation (informal) of how this workshop will affect actual work on the ground after a couple of years

Hold a follow-up conference after one year/a few years to obtain feedback or update on things done, e.g., application of suggested/recommended actions for the different steps in the process of CB-MS establishment

Joint conduct of priority activities like training on M&E, standardization of techniques, research, proposal writing workshops, etc.

Evaluation of the CB-MS process after one year, and evaluation of outcome indicators after 2 years

Sharing of Philippine community monitoring expertise and ecotourism expertise for similar development in Indonesian North Sulawesi sites

Joint national workshop about CB-MSs (Philippines and Indonesia)

Forging of a cooperation between the Philippines and Indonesia for the development of CB-MSs in both countries

Enhancing awareness among Indonesian government officials in order to develop/strengthen support for the replication of CB-MS in Indonesia

Promotion of understanding among coastal communities that marine sanctuaries are very important for the future generation

Cross-visits with another country that has different problems and conditions

Monitoring of CB-MS management by participants

6. Please give us your overall comments on the organization of the workshop or any other comments you may have.

Thank you for the opportunity to participate in the workshop. Keep up the good work.

The workshop was generally a success and well organized.

It was a good workshop overall.

Effective organization

Very well managed

I enjoyed this workshop. Thanks.

I salute the organizers. We have enjoyed this workshop. Well done.

Good workshop–the objectives were just right and these were satisfactorily accomplished.

The schedule was a bit demanding/hectic, constrained by limited flight schedule.

The facilitators were accommodating and friendly.

Although communication slowed down the process, the cross-cultural exchange was enlightening.

There is a need to keep the participants in touch as a network of CB-MS practitioners through email or workshops.

There is a need to give Indonesian participants a better history of programs in the Philippines.

The differences in the way CB-MSs are undertaken in the two countries are reflective of how different two neighbors are, e.g., in the manner of singing, housing, exercise of faith, Indonesians from Manado are different from Filipinos. Whether these differences would account for a different outcome of CB-MSs in North Sulawesi remains to be seen.

Participation in this workshop definitely changed me, for the better, thank you very much. I offer my services and participation in future CB-MS activities.

Indonesians should be less shy about their English because we understood what they said in the workshop.

I have learned a lot, but being a field worker, I was not comfortable with the formal proceedings of the workshop as well as with the theoretical/technical contents.

Good handling of the program, but next time please include the processes in community organizing that leads to empowerment of fisherfolk, community leaders, and institutions.

There should be a post-evaluation workshop after one year.

Excellent. I think everybody felt at ease with each other and the sharing of experiences continued even after the formal sessions. CB-MS work is really a rallying point for all participants. This workshop can be a start of a continuous sharing between the Philippines and Indonesia.

I am glad to have attended this workshop, thank you. My co-participants were good and each has his/her CB-MS experience to share. Future workshops of this kind will be very helpful in looking at the effectiveness of CB-MS establishment in the Philippines and North Sulawesi.

Great job overall and the time was well utilized including time for some social interaction.

Everyone's active participation, particularly the Indonesian participants who persevered even with their language difficulties, is greatly appreciated. Very open genuine/professional discussions and advice were provided by everyone.

Appreciated the good coordination among institutions in putting a logistically complicated workshop together. Maybe limit the size next time to a small group of 25-30 participants only. Thank you.

It was a good venue for improving the strategies and approach currently used, and for building a good relationship between neighboring countries.

It was a good opportunity for sharing information, experiences and lessons learned in CB-MS. Thank you to CRMP (Philippines and Indonesia), PCAMRD, URI-CRC, and the David and Lucile Packard Foundation for supporting this workshop.

It would have been better if the field trips in the Philippines were to CB-MS sites that were not successful.

Good. Please continue with the initiative.

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