# An institutional analysis of community participation on MPAs within tourism sites in the Philippines

by

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# DEDICATION

for

the fishing communities in the Philippines for their continuous struggle
to have a better quality of life

and

to my Mother…to whom I owe my existence in this world.

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# ABSTRACT

This graduate project focuses on the participation of communities in the creation and management of tourism and development within coastal areas and looks at how they can be involved to ensure the sustainability of marine protected areas (MPAs) in tourism sites. The project compares and contrasts three prominent MPAs in the Philippines, namely the Tubbataha Reef, Mabini-Tingloy, and Apo Island, that have influenced policies and legislations in coastal resources management in the country. Using institutional analysis, the study compares and contrasts the three MPAs by highlighting the ecological and socio-cultural significance, economic value, governance structure and critical coastal and marine management issues in each site. The research also analyzes the effectiveness of policies and their integration to tourism and development, and the impacts of coastal tourism among MPAs mentioned. The major findings of the research suggest that for MPA management to complement tourism and development efforts, it should: (a) be integrated into broader development planning – either at the national, regional, provincial, or municipal level; (b) have the institutional, legal and financial support of government in addition to links with the private sector, and (c) have the support of local communities.

# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ABROA | Anilao Balayan Resort Owners Association |
| ARED | Assistant Regional Director |
| Asec | Office of the Assistant Secretary |
| CENRO | Community Environment and Natural Resources Office |
| CGD-Pal | Coast Guard District-Palawan |
| CITES | Convention for the International Trade of Endangered Species |
| DBM | Department of Budget and Management |
| DBM SEC | Secretary, Department of Budget and Management |
| DENR | Department of Environment and Natural Resources |
| DENR SEC | Secretary, Department of Environment and Natural Resources |
| Execom | Executive Committee |
| F/S | Financial Statement |
| HEA | Head Executive Assistant |
| ICM | Integrated coastal management |
| IEC | Information, Education and Communication |
| IPAF | Integrated Protected Area Fund |
| IRA | Internal Revenue Allotment |
| LGC | Local Government Code |
| LGU | Local Government Unit |
| MMC | Marine Management Council |
| MPA | Marine protected area |

| | |
|---|---|
| NCA | Notice of Cash Allocation |
| NIPAS | National Integrated Areas System |
| NGOs | Non-governmental organizations |
| No. | Number |
| PAMB | Protected Area Management Board |
| PAWB | Protected Areas and Wildlife Bureau |
| PAWS | Protected Areas and Wildlife Service |
| PENRO | Provincial Environment and Natural Resources Office |
| PCSD | Palawan Council for Sustainable Development |
| PhP | Philippine Pesos |
| PN | Philippine Navy |
| PNOC-EC | Philippine National Oil Company-Exploration Corporation |
| PSSA | Particularly Sensitive Shipping Areas |
| PTA | Philippine Tourism Authority |
| REC | Resource Executive Committee |
| RED | Regional Executive Director |
| RMC | Resource Management Committee |
| SAGUDA | Sagipin Gubat at Dagat |
| SARO | Special Allotment Release Order |
| SCUBA | Self-contained Underwater Breathing Apparatus |
| Sec | Secretary |
| SPSTI | Samahang Pangkaunlaran ng San Teodoro, Inc. |
| TMO | Tubbataha Management Office |

| | |
|---|---|
| TPAMB | Tubbataha Protected Area Management Board |
| TRNMP | Tubbataha Reef National Marine Park |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| US$ | United States Dollar |
| USEC | Undersecretary |
| WFP | Working Financial Plan |
| WTP | Willingness-to-pay |
| WWF | World Wildlife Fund |

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# CHAPTER 1: THE MANAGEMENT PROBLEM AND A REVIEW OF RELATED LITERATURE

## *1.1. Introduction*

This graduate project focuses on the participation of communities in the creation and management of tourism and development within coastal areas and looks at how they can be involved to ensure the sustainability of marine protected areas (MPAs) in tourism sites. The project compares and contrasts three prominent MPAs in the Philippines, namely the Tubbataha Reef, Mabini-Tingloy, and Apo Island, that have influenced policies and legislations in coastal resources management in the country. Through institutional analysis, this paper highlights the biological, political, and socio-economic factors affecting MPA management, and how they affect communities within coastal tourism areas. Significantly, this paper provides an overview of sustainability issues and clearly shows the need for examining existing policies to ensure the success of MPAs. This research is essential in looking at ways to sustain the communities' livelihoods and their ownership role in managing MPAs.

Tourism is the world's largest industry accounting for more than ten percent of total global employment, and eleven percent of global gross domestic product. By 2020, total tourist trips are predicted to increase to 1.6 billion (Denman, 2001:1). Globally, tourism in protected areas of outstanding natural beauty, extraordinary ecological interest, and pristine wilderness has been steadily increasing over the past two decades (Boo, 1990:2).

In the context of protected area management, Cater (1994:83) looks at the essential contribution of tourism in providing the financial resources through the introduction of user fees for rehabilitating degraded areas. User fees for entering protected areas are employed to raise revenue to finance MPAs therefore increasing the resources available for better management. Loon & Polakow (2001:903) recommend that sound integrated environmental management procedures including environmental and social impact assessments, and other baseline studies should be conducted at the start of any new ecotourism development. In any ecotourism effort, sustainable development should be incorporated by including the human dimension and the basic needs of the local population. A final general principle, but perhaps the most vital in ensuring the sustainability of ecotourism development on for tourism destination is increase genuine local involvement (Cater, 1994:84).

Ecotourism is considered as a type of sustainable tourism used to enhance both conservation and development. While ecotourism is an arbitrary term, there is some general agreements about some of its elements (1) it is nature-based (occurs in natural setting); (2) it is educational; and (3) it is managed in a sustainable manner - (Beeton, 1998:1). Similarly, Denman (2001:2) recognizes both the suppliers and consumers in supporting the conservation of natural resources but also looks more deeply at the social dimensions of ecotourism. Thus, Denman coined the term "community-based ecotourism" which takes the social dimension a stage further. In community-based eco-tourism, the local community has substantial control over, and involvement in the development and management of the tourism venture, and a major proportion of the benefits remain within the community.

A study by Brandon (1996:11; c.f., Wells & Brandon, 1992) of twenty-three protected areas in Indonesia, Thailand and Rwanda found that while these projects are designed to generate local economic development through ecotourism, only few achieved substantial benefits for either parks or local people. Furthermore, Tosun (2000:626) considers both community involvement in the decision-making process and the direct benefits of tourism development. Community participation in tourism development in many developing countries has been recognised as mainly bringing economic benefits to local people by employing them as workers or encouraging them to operate a small-scale business, rather than by creating opportunities for local people to have a stake in the tourism development decision-making process. In reality, a practical challenge for tourism planners today is to match the planning approach to the needs of the community (Haywood, 1988:109).

However, while experiencing the same global trends, tourism and development in the Philippines has been for the most part unplanned and come at the expense of ecological destruction of coastal resources. Moreover, upland deforestation, industrial and domestic waste generation, shoreline development, and uncontrolled tourism to meet the tourist demand have resulted in extensive degradation of the coastal and marine environment (La Viña, 2001:96). In a report based on field studies in Southeast Asian countries with extensive coastal tourism and development, Wong (1998:106) recommends that the tourism and development industry should develop and follow guidelines for environmental management of sewage discharge, shoreline erosion, maintenance of beaches, coral reefs, and other ecosystems, and general tourism development zones.

MPAs have been a popular marine conservation tool in the Philippines since the mid-1990s. In recent years, they have emerged as an instrument linking marine conservation, community participation and ecotourism. Consequently any study of the impact of MPAs in the Philippines must explore the linkages between these fields.

Effective MPA management involves the devolution of authority from central to local governments and the presence of supportive public and training institutions to build the capacity of local governments and communities in planning and managing MPAs (White et al., 2004). In many instances, governments, non-governmental organizations (NGOs), academic institutions, and coastal communities adopt a coordinated and collaborative process through sharing of responsibilities and authority in the management of coastal resources. Other authors including Christie (2005) documents the use of MPAs as a management tool for integrated coastal management (ICM) in the Philippines. In recent years, interest in implementing ICM initiatives has increased in response to the need to manage coastal resources while improving the livelihoods for coastal communities. The most common strategy employed in ICM is the establishment of a MPA. However, competing resource users (e.g., municipal fishers, commercial fishers, tourists, and tourist facility operators) either support or oppose ICM since the implementation of management plans could either curtail or enhance their respective economic practices in the coastal zone (Balgos, 2005:976).

Generally, in the Philippines MPAs and ICM follow a community-based approach applying the principles of empowerment, ecological soundness and sustainable development, respect for traditional/indigenous knowledge, and social and

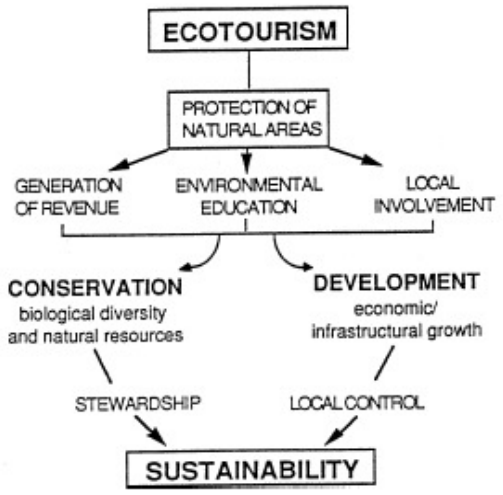
gender equity (Balgos, 2005:978). These authors all look at management interventions to address complex issues in the coastal environment and how they affect different stakeholders. Yet, they also conclude that despite their great potential for coral reef conservation, MPAs frequently lack sufficient funding and management, and therefore do not provide long lasting protection to coastal resources.

Among the Southeast Asian countries, the Philippines has the highest number of MPAs with over 500 as of last count (Aliño et al., 2000; c.f., UP-MSI, ABC, ARCBC, DENR & ASEAN, 2002:69). Tourism is a growing industry in the coastal areas, where approximately seventy percent of the country's 1,500 municipalities are located (Coastal Resource Management Project, 1999; c.f., Balgos, 2005:973). Similarly, eighteen of the top twenty-five Philippine tourist destinations are in coastal areas (Environmental Management Bureau, 1996; c.f., La Viña, 2001:94). A study by White and Trinidad (1998; White & Vogt, 2000; c.f., World Bank, 2005:3) reveals that one square kilometre of healthy coral reef with some tourism potential produces an annual net revenue ranging from US$ 29,000 to US$113,000. These facts suggest that the Philippines harbours an enormous wealth in its marine environment, which requires a comprehensive plan to ensure the protection and sustainability of these natural resources. Given the links between marine conservation, tourism, and community development priorities, it is necessary to understand the interrelationships between all these issues, notwithstanding what level of management priorities may be given to an individual issue at any particular site.

Within the context of tourism and development, equity may correspond to the quality of democratic processes such as the level of involvement of local communities in decision making. Equity also includes fair access to resources and the means of production including income derived from tourism in coastal areas. Empowerment is secured when resource users are in a position to participate as equal partners, and ultimately achieve determination (Sowman et al., 2003; c.f., Jentoft, 2005:6). In the context of this paper, I use the sustainable ecotourism framework of Ross and Wall (1999a; 1999b; Tsaur et al., 2006) that represents the perception of symbiotic relationships among initiatives in protecting natural resources through resource generation, environmental education, and local participation. (See *Figure 1*.) These strategies assume a positive contribution towards conservation and development. Also, public education has a key role to play in enabling residents to contribute fully to both tourism planning and to their essential roles in the wider hospitality experience of their visitors (Simmons, 1994:106). However, when business is the main driving force behind ecotourism, it is not surprising that the ventures which emerge may serve to alienate, rather than benefit local communities.

There is a need for an approach to ecotourism which starts from the needs, concerns and welfare of local host communities (Scheyvens, 1999:245-246). Extricating the relationship between tourism and development within MPAs in the Philippines may be challenging but this paper will focus on the practical question of how community-based MPAs can achieve a balance and enhance tourism-based projects in the Philippines.

Figure 1: An evaluation framework for sustainable ecotourism
(Source: Ross & Wall, 1999a; 1999b).




The poorest countries are the least capable of withstanding the adverse impacts of tourism on their natural resource base, yet these are the very nations most in need of sustainable tourism development (Cater, 1994:85). Tourism can be a means of empowerment if tourism and community development are seen as interconnected. When managed by communities, tourism will enhance their livelihood capabilities in accordance with their socio-economic and cultural values, and create a sense of ownership for these stakeholders. If properly managed, conservation, and tourism and development can be compatible and complementary.

## *1.2. Scope and Objectives of Study*

This paper explores the problems facing coastal communities trying to integrate tourism and MPAs. The three case studies comprise Apo Island in Negros Oriental, the coastal municipalities of Mabini and Tingloy in Batangas province (popularly known as “Anilao”), and the national park of the Tubbataha Reef in

Palawan. (See map on *Figure 2.*) The central aim of this paper is to analyze the ecological, socio-cultural, economic, and political factors through a variety of case studies of MPAs within tourism areas in the Philippines. Ecological and socio-cultural aspects look at essential biological process and resources, and the people and institutions involved within the MPA, respectively. Economic factors pertains to the production and extraction of natural resource vis-à-vis their costs and benefits while political features provides an objective overview of national and local coastal resource management policies and demonstrates the need for further improvement of existing policies towards the sustainable management of natural resources including legislation and its application in the area.

Specifically, the objectives of this research are:

1. To provide background information on the interaction and dynamic involvement of stakeholders within an MPA;
2. To assess the policies and strategies affecting the coastal environment in the Philippines; and
3. To provide recommendations for sustaining the involvement of local stakeholders involved in marine protected area management and engaged in coastal tourism.

**Figure 2: Location of study sites**
**(Source: Center for Southeast Asian Studies - Northern Illinois University, 2007).**


## *1.3. Research Questions and Methodology*

At the community level, this paper asks two questions:

(1) How can community-based MPAs enhance tourism-based projects in the Philippines?

(2) What are the political, socio-cultural, and economic factors necessary for the successful implementation of tourism and development within MPA management in the Philippines?

At the policy level, this paper addresses the following questions:

(1) Are existing government policies and legislation supportive of coastal tourism initiatives?

(2) What are available opportunities for collaboration between stakeholders to assure the sustainability of MPAs?

The coastal resource management programs in Apo Island (Negros Oriental), Tubbataha Reef National Marine Park (Palawan) and Mabini-Tingloy (Batangas) were chosen as case studies because they represent: the use of multi-disciplinary approaches and illustrate a diversity of potential outcomes, challenges, and lessons learned in implementing marine management efforts in conjunction with tourism and development.

The methodology for this graduate project consisted of conducting background research on coastal tourism by reviewing existing scholarly literature on the subject of tourism and MPAs. I also relied on electronic written sources from other coastal management practitioners who provided baseline data about the socio-economic, cultural, political and ecological conditions in the study sites. Websites from the municipal government of Mabini, Batangas, and the Tubbataha Reef Natural Marine Park were readily available online while data for Apo Island was contributed by various researchers from Silliman University.

This paper will consider useful lessons for ICM from the experience of these study sites. A major limitation of this research was the inability to conduct field research due to limited funds. Since it was not possible to validate the data or carry out personal interviews with coastal resource management practitioners or other stakeholders at each site, the analysis is based specifically on the previously mentioned materials.

For the case study sites, I use institutional analysis to examine the level of involvement of resource use groups in managing resources and determine the ways in which they actively participate (Pomeroy, 1998:119). Existing policies are reviewed to look at the effectiveness of policies and programs in achieving tourism and development goals. I also analyze basic policy instruments related to coastal resource management, and tourism and development, and examine their impacts on coastal tourism sites.

## *1.4. Policy Implications*

This paper explores the legal and socio-political impediments to MPA-based coastal tourism in the Philippines. It looks at institutional issues in the tourism sector and their effect on MPA management. In my project, I look at the implications of community participation and ownership in sustaining MPA initiatives, as well as the importance of integrating all forms of coastal management including collaboration with municipal and national governments.

The underpinning issue is whether the consequence of tourism and development among MPAs are determined by institutions alone, or by the State and elites leading to unanticipated ecological, socio-economic, and political outcomes.

The succeeding chapter present significant case studies on MPAs in the Philippines that have contributed a significant degree of success in coastal management.

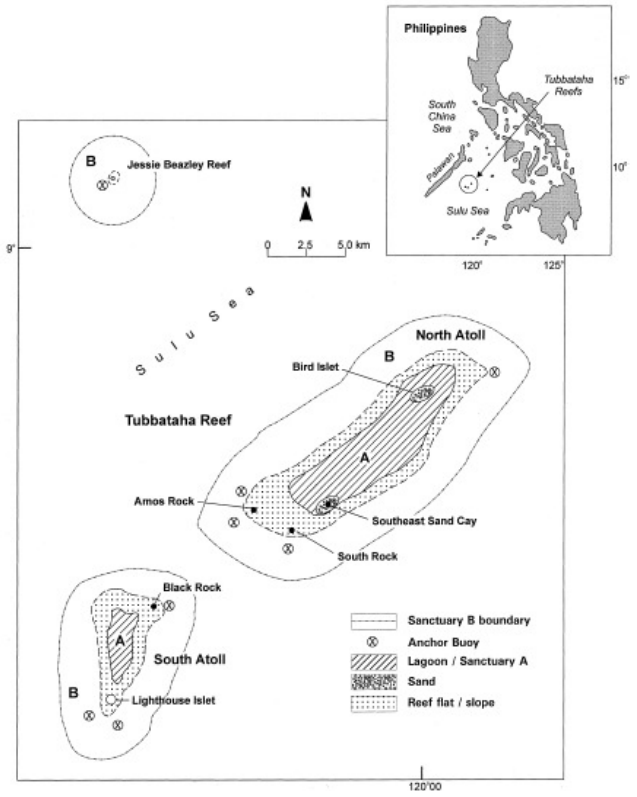
# CHAPTER 2: STUDY AREAS

This chapter compares and contrasts the three MPAs by highlighting the ecological and socio-cultural significance, economic value, governance structure and critical coastal and marine management issues in each case study site. These case studies examine the complexity of issues in coastal where ecological impacts are connected with other issues, and success in one category has consequences on the others.

## *2.1. Tubbataha Reef National Marine Park (TRNMP)*

The name Tubbataha comes from the Samal dialect, the seafaring people of the Sulu region, and means 'long reef exposed at low tide'. The Tubbataha Reefs is the largest coral reef atoll in the Philippines and the only MPA that is strictly marine and without human habitation. The reef consists of two coral atolls located in the center of the Sulu Sea, about 150 kilometres southeast of Puerto Princesa City, Palawan. (See *Figure 3.*) The reef complex stretches over an area of 10,000 hectares within the island municipality of Cagayancillo, some 80 kilometres northeast of Tubbataha. The larger north reef is about 16 kilometres long and 4.5 kilometres wide. The south reef is about 5 kilometres long and 3 kilometres wide (Arquiza & White, 1999; White & Courtney, 2002). Both reefs have lagoons and scattered sand cays. The islet in the north reef is called Bird Islet, and supports most of the important seabirds (Dygico, 2006:3).

**Figure 3: A zoning scheme of Tubbataha Reef National Marine Park (TRNMP) (Source: White & Vogt, 2000:545).**




## *2.1.1. Ecological Significance of the Area*

Tubbataha Reef, proclaimed as a National Marine Park on August 11, 1988 under Presidential Proclamation Number (No.) 306, was inscribed as a UNESCO (United Nations Educational, Scientific and Cultural Organisation) World Heritage in 1993, in recognition of its outstanding universal value in terms of marine life species diversity and richness. Currently, natural, cultural, and cultural landscapes are three categories of heritage sites within the World Heritage List based on the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO, 2005). Cultural landscapes are sites that represent both natural and cultural values

(Kujiper, 2003). As a natural heritage site, UNESCO (2005:20) inscribed the Tubbataha Reef based on the following criteria:

- contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;
- be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;
- be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;
- contains the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

Similarly, a 1983 survey alone recorded forty-six coral genera and more than 300 coral species, at least forty families and 379 species of fish. Large marine life such as manta rays, sea turtles, sharks, tuna, dolphins, and jackfish are a common sight in the reef. The entire park covers 33,200 hectares harbors a diversity of marine life equal to and greater than any such area in the world (White and Calumpong, 1992; Arquiza & White, 1999; White & Vogt, 2000; Subade, 2007).

### *2.1.2. Socio-cultural*

A distinguishing feature of Tubbataha Reef compared to other MPAs in the Philippines is that there has been limited community involvement in the process of planning and implementation of MPA management (White & Vogt, 2000:547). Although traditionally, the area is more closely associated with the settlement of Cagayancillo along with the indigenous people from Samals, Badjaos, and Tausugs

(Dygico, 2006:7).There are four main groups of fishers from distinct geographic locations harvest fish and other marine life at Tubbataha. These main groups are: fishers from Cagayancillo; fishers from Palawan Island; transient fishers from the Visayas and Southern Luzon, and international fishers with boats based from as far as Hong Kong and Taiwan (White & Palaganas, 1991:152).

Residents from Cagayancillo and other municipalities of Palawan region began fishing intensively at Tubbataha in the early 1980s because they could no longer harvest enough fish in the traditional grounds nearer to their homes. The arrival of fishers from the Visayas in the mid-1980s marked a turning point in the history of Tubbataha because they introduced dynamite and cyanide fishing. Using air compressors for breathing, fishers dive into the corals and squirt a cyanide-based solution to stun the fish for easy capture (Tubbataha Management Office, 2006a).

Despite the remoteness of Tubbataha, its reputation and its biological wealth has made it vulnerable to poachers from as far away as Taiwan and China engaged in the live fish trade or collecting ornamental products, such as turtles and clams (Dygico, 2006:20). In December 2007, WWF-Philippines (2007) reported the apprehension of a fishing vessel called Hoi Wan bearing thirty Chinese poachers 1.5 nautical miles from Tubbataha. The Hoi Wan surrendered after a 30-minute boat chase and some warning shots, and was escorted to the ranger station's mooring buoys. Over 2000 high-value fish, including live grouper, red snapper and 359 endangered Napoleon Wrasse *(Cheilinus undulates)* were discovered in the vessel's hold. The collection, possession, transport, or trade of endangered fishes is illegal under Philippine law and Appendix 2 of the Convention for the International Trade of

Endangered Species (CITES). Fishing paraphernalia for live fish collection such as air compressors and eleven *sampans* (small wooden boats) were also found aboard the vessel. Unfortunately, this was not the first time Chinese fishermen intruded into Tubbataha's rich waters. In Palawan, almost 600 Chinese have been arrested fishing illegally over the last nine years.

Another important group that uses Tubbataha is the tourism sector. While the distance from Puerto Princesa City requires an overnight voyage by ship, Tubbataha has become a popular site for recreational self-contained underwater breathing apparatus (SCUBA) divers. Unfortunately, the marine resources of Tubbataha are at risk as the number of divers visiting increases yearly, adding pressure to the fragile nature of the reefs (Palawan Council for Sustainable Development, 2004). Though there are no human settlers in Tubbataha due to the absence of freshwater, there are seven registered diving operators under the website of the Tubbataha Management Office (2006a) that are based in Manila, Cebu, and Puerto Princesa.

### 2.1.3. Economics

The potential economic value of the fishery of Tubbataha Reef alone, if managed properly would be significant. The approximately 18 $km^2$ reef area can produce up to 500 tonnes of fish and other organisms per year, or an annual gross return of about US$ 450,000 (White, 1988a; White & Palaganas, 1991:153). Tourism to Tubbataha is increasing yearly and contributes more than US$ 2 million to the local and national economy (Arquiza & White, 1999; c.f., White and Vogt, 2000:546). Moreover, Subade's (2007:139) recent study about the economic values of marine biodiversity in the area reveals that the yearly economic value is estimated

at around US$ 6 million. This total does not yet include the non-use economic values that pertains to current or future (potential) values associated with the environmental resource (Pearce & Warford, 1993:99-102).

Each year the number of people visiting Tubbataha increases. A trust fund was created in 2000 to finance conservation work for the TRNMP through a conservation fee, that is actually a user's fee paid by divers (Mejia et al., 2000; Subade, 2007). The financial sustainability mechanism came about as the result of a survey conducted by WWF-Philippines asking divers about their willingness to pay a user-fee. As a result, the TRNMP came up with a two-tiered fee structure of US$ 25 and US$ 50 for local and foreign divers, respectively. In 2001, the park received around 700 visitors and by 2006, this had doubled to over 1,400. The revenue from tourism activities is used for park management, and to maintain and improve the park by installing mooring buoys annually, training the park rangers, and conducting education campaigns for locals and visitors to Palawan (Tubbataha Management Office, 2006a).

### *2.1.4. Governance*

Composed of a wide range of stakeholders, the Tubbataha Protected Area Management Board (TPAMB)[1] was established in 1999. (See *Table 1.*) Past experience shows that entrusting one organisation alone in the conservation of Tubbataha is huge and complex. Thus, under the management board there is a park

[1] This was formalized through a memorandum of agreement between the Palawan Council for Sustainable Development (PCSD) and the Department of Environment and Natural Resources (DENR) which acts as the policy-making body responsible for the general administration and management of the park.

manager responsible for the daily operations of an action team in the park. This field team educates park users, and enforces laws and regulations in Tubbataha. The two patrol teams are rotated on a regular basis to ensure effective park management. The municipality of Cagayancillo exercises its political jurisdiction over Tubbataha.

**Table 1: Key Members of the Tubbataha Protected Area Management Board (Source: Tubbataha Management Office, 2006b).**

| |
|---|
| ▪ ***Governor of Palawan (Chairperson)*** |
| ▪ ***Provincial Environment and Natural Resource Office (Vice Chairperson)*** |
| ***Members:*** |
| ▪ ***Commander, Western Command*** |
| ▪ ***Commander, Naval Forces West*** |
| ▪ ***District Commander, Coast Guard District-Palawan*** |
| ▪ ***Mayor, Municipality of Cagayancillo*** |
| ▪ ***Chair, Environment and Natural Resources*** |
| ▪ ***Committee, Cagayancillo Sangguniang Bayan[2]*** |
| ▪ ***Environment and Natural Resource Office- Province*** |
| ▪ ***Palawan Council for Sustainable Development[3] Staff*** |
| ▪ ***Executive Director, Philippine Commission On Sport SCUBA Diving*** |
| ▪ ***Provincial Officer, Bureau of Fisheries and Aquatic Resources*** |
| ▪ ***Provincial Board Chairman, Committee on Environment & Natural Resources*** |
| ▪ ***Provincial Board Chairman, Committee on Appropriations*** |
| ▪ ***President, World Wildlife Fund-Philippines*** |
| ▪ ***Executive Director, Conservation International*** |
| ▪ ***Chairperson, SAGUDA Palawan[4]*** |

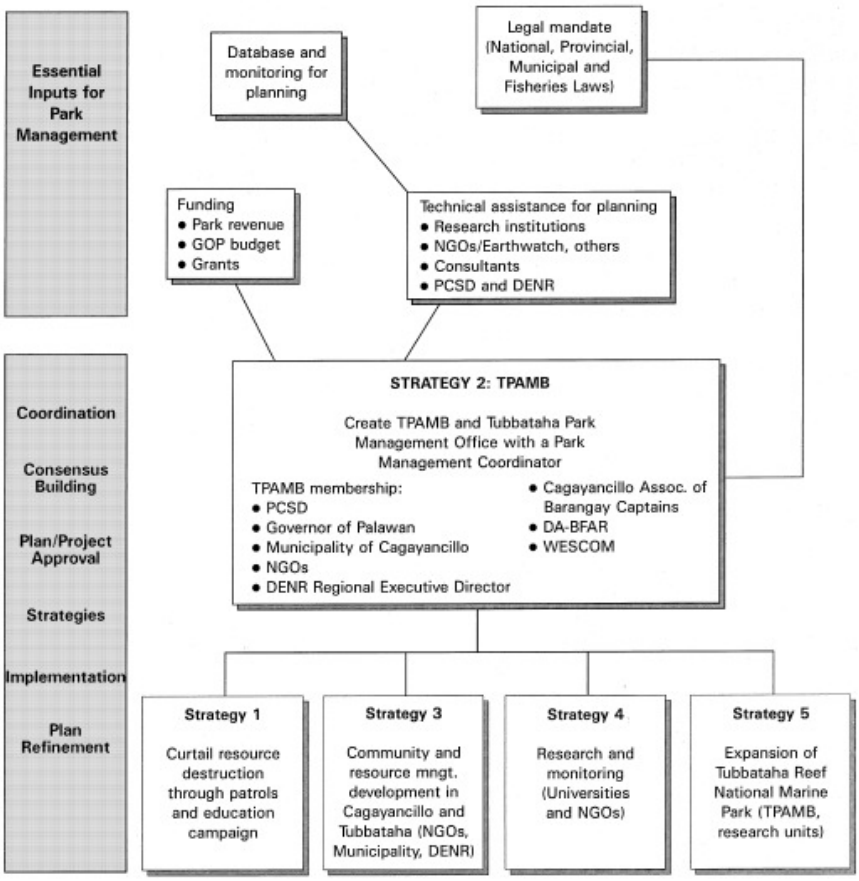
The TPAMB meets four times a year to discuss policy issues and decide on matters related to park management. An Executive Committee (Execom) meets on a monthly basis to address operational and administrative issues. Due to the many responsibilities of the PCSD, the secretariat function, the Tubbataha Management Office (TMO) was created. The TMO is headed by a Park Manager and the rest of the staff is recruited from nearby areas with three marine park rangers coming from

[2] A Filipino term for Municipal Council.
[3] The Palawan Council for Sustainable Development (PCSD) is a multi-sectoral and inter-disciplinary body, which under the law is charged with the governance, implementation and policy direction of the Strategic Environmental Plant for Palawan Act or Republic Act No. 7611. It is directly under the Office of the President of the Republic of the Philippines.
[4] SAGUDA – an acronym which means *Sagipin Gubat at Dagat* or *Save the Forest and the Sea*, a local environmental organization in the province of Palawan.

Cagayancillo. The TMO administers the day-to-day affairs of the park which translates into yearly work plans and budgets endorsed by the Execom and approved by TPAMB. Other responsibilities of the TMO includes assisting the military in law enforcement, producing information, education and communication (IEC) materials for schools and maintaining the TRNMP website, and fund raising. Fund raising is done through donations, collection of diver's fee and on-line contributions. The Naval Forces West of the Philippine Navy (PN) and Coast Guard District-Palawan (CGD-Pal) were eventually included as members of the Management Board. These units perform direct protection and enforcement functions through the deployment of personnel in Tubbataha year-round while community development in Cagayancillo and research activities at the Park are funded and undertaken by World Wildlife Fund (WWF)-Philippines.

The management structure of TRNMP reflects a significant level of collaboration among the government, NGOs and civil society groups. (See *Figure 4.*) The fishing ground access of Cagayancillo fishers was affected by MPA enforcement, so WWF-Philippines in partnership with the local government of Cagayancillo initiated a livelihood program for the affected communities and facilitated the development a coastal resource management program for the municipality. Also, WWF-Philippines assisted in the establishment of a park office, hired a full-time park superintendent, deployed two rangers and supported stakeholder consultations.

**Figure 4: Institutional structure for TRNMP Management (Source: White & Vogt, 2000:547).**




### *2.1.5. Critical Management Issues in Tubbataha Reef National Marine Park*

Despite its remoteness, Tubbataha and its marine biodiversity were not free from intrusion and destruction up until the late 1990s. Illegal fishing methods including the use of dynamite and sodium cyanide destroyed large areas of the reef in the past (White & Courtney, 2002:16). The lack of funding and institutional infrastructure are the major limiting factors preventing the implementation of the management plan to conserve and protect a 33,200 hectares MPA. Also, Subade

(2007:138) points out that one major reason for the excessive depletion of biological/environmental resources (i.e., marine biodiversity) is often the failure to account adequately for their non-market environmental values in development decision making.

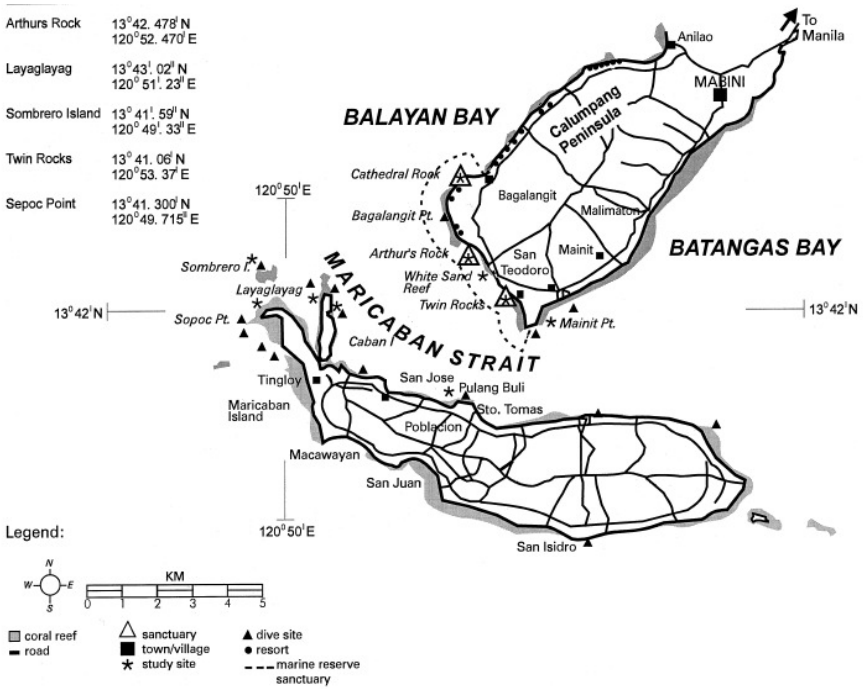
Due to the park's isolation and large area, the cost of maintaining the park is high. The management body needs technical assistance and public consultation in defining fines for damages caused in the park. A breakdown of operating costs and funding sources in 2001 by Tongson and Dygico (2004:19) reveals that excluding capital depreciation, the annual recurring cost of maintaining TRNMP is at least US$ 115,000 annually. This amount defrays the cost of deploying seven rangers, rotating patrol teams on a bimonthly basis, procuring supplies and maintaining facilities and equipment, information campaigns, research surveys, and park management and administration. The ecological, economic, and heritage benefits of TRNP, if managed in a sustainable manner with complete maintenance of the reef habitats will be very significant (White & Vogt, 2000:545). At the same time, Songco (2002:224) stresses the need to continuously upgrade the marine park ranger's appreciation for the environment through training, exposure trips, and education. The assignment of untrained military personnel in the field of conservation and resource management necessitates ongoing training.

## *2.2. Mabini-Tingloy, Batangas*

The neighbouring municipalities of Mabini and Tingloy in Balayan Bay are located in the province of Batangas and these two areas are popularly known as

Anilao which is about 120 km south of Manila. (See *Figure 5.*) Mabini is situated on the Calumpan Peninsula while Tingloy is located on Maricaban Island, two nautical miles from mainland Batangas.

**Figure 5: MPAs and diving destinations in Anilao (Source: White & Vogt, 2000:543).**




## *2.2.1. Ecological Significance of the Area*

The marine environment in the Batangas region is characterized by the coral reef ecosystem that supports approximately 290 species of hard corals and 481 species of fish (Milne & Christie, 2005:431). The Balayan Bay area has an extensive coral reef and coral-based marine ecosystem. Most coral reefs in Balayan Bay are actually coral communities growing on rocky substrate and not true reef formations, which have traditionally supported rich near-shore fishing and in recent years a growing ecotourism industry (White & Vogt, 2000:543).

### 2.2.2. Socio-cultural

Mabini has an area of 4,296 hectares with an estimated population of 37,474 while Tingloy has a total area of 1,269 hectares with a population of 17,028 (National Statistics Office - Philippines, 2000). In the 1970s, beach resorts and dive camps begin to appear along the West Coast of the Calumpan Peninsula. The development of further tourism enterprise was regulated by Presidential Proclamation Number No. 1801 in 1978 which declared "the whole of Batangas coastline and the offshore islands" as "tourist zones and marine reserves under the administration and control of the Philippine Tourism Authority (PTA)." With that proclamation, "no development projects or construction for any purposes" will be introduced without PTA. It was also locally understood that tourist diving in the designated area was permissible, but that spearfishing with SCUBA gear was prohibited along with other forms of illegal fishing (Oracion et al., 2005:400).

In 1991, three MPAs were established with the help of Haribon Foundation, the oldest environmental organization in the Philippines. These sites are the Cathedral Rock in Barangay[5] Bagalangit, and Arthur's Rock and Twin Rocks both situated in Barangay San Teodoro. Majority of the residents situated living near Balayan Bay are fishers. Of the seven coastal villages within the Balayan Bay area of Mabini, San Teodoro has the most fisherfolk, with approximately thirty five percent of 230 households (Arciaga, 2001:135). Around thirty percent of the inhabitants are farmers and the rest are working at resorts hired for certain services as workers or are boatpeople for scuba divers. The small-scale fishers in San Teodoro frequently use

[5] The basic level of political unit in the Philippines.

the traditional methods of catching fish such as hook and line, spear, drive-in gill net, and other kinds of fish nets (Haribon Foundation, 2005:197).

There is an enormous range of resource users dependent on Balayan Bay, although they are not all residents of the area. They represent different socio-economic and ethnic origins making the interaction and communication complicated among stakeholders. The website of the Municipality of Mabini (2007a) reveals that nine out of thirty-four dive resorts in the area are owned/managed by non-Filipinos, although this number does not reflect cases where ownership is listed as being in the name of Filipino wives who are married to foreigners. Many of the resort owners reside in Manila and some fishers are resentful that tourism has invaded their traditional fishing grounds. They have resisted working closely with the tourism community to jointly solve their problems (White & Vogt, 2000:544).

### *2.2.3. Economics*

Due to the rich marine biodiversity, as well as proximity to Manila, Mabini-Tingloy began to emerge as a recreational dive destination in the 1970s. Tourism became a major industry in the 1990s, and currently there are approximately sixty small to mid-size resorts in Mabini located in eight out of the 34 barangays (Majanen, 2007:480). In barangay San Teodoro, thirty percent of residents farm the hilly and upland areas while the rest the households derive their income from an expanding local tourism industry or from relatives overseas (Arciaga, 2001:136).

On the other hand, the town of Mabini situated along the shore of Batangas Bay serves as a business corridor of the province. The development of the commercial industry began on the eastern side along the coastline of Barangay Mainaga that includes Petron and the Philippine National Oil Company-Exploration Corporation (PNOC-EC) occupying more than nineteen hectares in barangays Mainaga and San Francisco, serve as warehouses and storekeeping points for materials and equipments unloaded by big foreign vessels to the various establishments in Metro Manila and other provinces. At present, the Batangas Terminal Plant of Petron Corporation is operating in Mainaga, Mabini, and Batangas (Municipality of Mabini, 2007b). Other multi-million dollar industries within the municipality include farm feeds and fertilizer factories, a steel corporation and a cement plant.

### *2.2.4. Governance*

The municipal ordinance has set guidelines for the formation of a Resource Executive Committee (REC) that supervises the municipal MPA. The REC is composed of the mayor as the presiding officer, two town officials, an official from the Office of Agriculture, the Barangay Chairs of San Teodoro and Bagalangit and scientists from Haribon Foundation and the Bureau of Fisheries and Aquatic Resources. The REC was commissioned to form the Resource Management Committee (RMC) made up of landowners, fishers and resort owners as well as *the Samahang Pangkaunlaran ng San Teodoro, Inc.*[6] (SPSTI) (Haribon Foundation,

[6] The organization's name translated in English means *"Progressive Organization of San Teodoro,"* the fishers' organization in the area which was organized by Haribon Foundation in 1990 through

2005:201). The local government units (LGUs) of Mabini and Tingloy fund their coastal management efforts primarily through an internal revenue allotment (IRA)[7] (Milne & Christie, 2005:431). Mabini and Tingloy started its unified dive collection last September 2005. Half of the total monthly collection is retained by Mabini, while the other half goes to Tingloy. The average monthly collection by each municipality for the past three years however, has been increasing: PhP 83,000 (US$ 1,660) in 2004; PhP 104,000 (US$ 2,080) in 2005; and PhP 114,000 (US$ 2,280) (implementation of unified diver's fee system) in 2006 (WWF-Philippines, 2006).

### *2.2.5. Critical Management Issues in Mabini-Tingloy area*

Fishers, boat operators, resort owners and operators, and MPA managers in Mabini all have different interpretations of the regulations, different preferences for particular management options, and they are uncertain about the consequences of economic development and population growth for the area, particularly the economic development generated by tourism (Oracion et al., 2005:407). There are growing concerns among some community members and fishers in Mabini that divers are disturbing the fish in the MPA and boats anchored near the reef are damaging the reef structure. According to Christie (2005:265), Arthur's Rock MPA is no longer enforced while Twin Rocks and Cathedral Rocks MPAs are protected only by the resort owners rather than by members of the local fishing community.

The Municipal Ordinance No. 11-91 in 1991 established portions of Barangays San Teodoro and Bagalangit in Mabini, Batangas as ''fish sanctuaries,''

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various environmental education seminars, organizational development and networking with the municipal government.

[7] These are funds from the municipal government's budget derived from internal revenue source or local revenue-generating mechanisms.

namely: Twin Rocks, Arthur's Rock, White Sand Rock, and Cathedral Rock. The Ordinance also declared as a marine reserve the entire shoreline and reef up to 700 meters offshore. In 1993, an amendment was made to Ordinance No. 11-91 excluding White Sand Rock as an MPA and retaining only three fish sanctuaries. The amended Ordinance provides, under Section 3 thereof, that SCUBA diving and snorkeling are prohibited inside the sanctuary, and in Section 4, catching of fish and gathering of corals within the sanctuary is banned. On the other hand, traditional fishing using hook and line, spearfishing without SCUBA or compressors, use of nets or *salok* (scoop net) for catching *dulong* (anchovies) and traps are allowed outside of the fish sanctuaries but within the marine reserve. Perhaps, the rules and restrictions that apply to marine reserve are biased since diving is allowed while fishing is not, despite both being prohibited in the sanctuaries (Majanen, 2007:483).

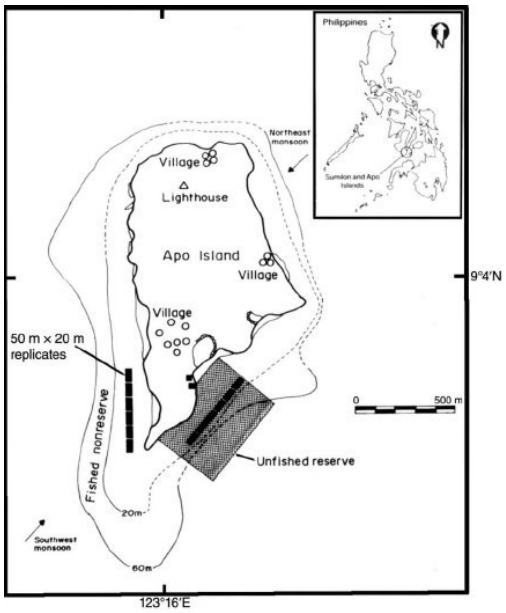
Although resort owners were influential in the establishment of Mabini sanctuaries, currently, the issue most frequently raised by Mabini residents is the increasing control by resort owners and managers over the management of MPAs (Majanen, 2007:482). The members of the SPSTI have lost interest in being a partner of the Anilao Balayan Resort Owners Association (ABROA) in patrolling and managing the Twin Rocks MPA. Currently, Planet Dive Resort located in front of the sanctuary takes the lead in MPA enforcement. This has resulted in misunderstanding between some of the members of the community, and the owners and caretakers of the resort because though fishing is prohibited, some people have been permitted to dive or snorkel and anchor their boats inside the sanctuary (Haribon Foundation, 2005:201).

Another threat to destroy the tourism industry within the municipalities of Mabini and Tingloy is the oil spill coming from various commercial industries and ships navigating in the Batangas region. From July to October 2006 alone, the two municipalities have experienced four incidents of oil spill which is attributed to local ships discharging bilge oil – a mixture of water, used oil and other residual pollutants. Currently, WWF-Philippines is working with other stakeholders to establish the navigational area of Batangas as a Particularly Sensitive Shipping Areas (PSSA) and to ban all maritime vessels bearing potentially hazardous materials from using the areas as a sea lane.

## *2.3. Apo Protected Landscape and Seascape (Apo Island)*

Apo Island, a seventy-four hectare volcanic island located off the southern coast of Negros Oriental in the middle of the Mindanao, is one of the nine barangays along the coast of the town of Dauin, which is comprised of twenty-three barangays. It is the only island in the municipality of Dauin. (See *Figure 6*.) The entire island with an area of seventy-two hectares is hilly, but a third of it is a plain used for agriculture (Haribon Foundation, 2005:214).

**Figure 6: Map of the Apo Island MPA**
**(Source: Alcala et al., 2005:100).**




## *2.3.1 Ecological significance of the Area*

The entire Apo Island was declared as a marine reserve and a small portion as a fish sanctuary (no-take zone area). This model includes limited protection for the coral reef and fishery surrounding the entire island and strict protection from all extraction or damaging activities in small 'sanctuary' normally covering up to twenty percent of the coral reef area (White, 1988b; White & Vogt, 2000). In a recent coral reef cover survey, the MPA has an existing 86.88 percent coral cover, 53.75 percent live hard coral cover and 33.13 percent soft coral cover. Forty species of coral were identified using the random quadrant method to assess the massive coral reef cover, with the most dominant genera being *Galaxea, Acropora* and *Porites.* Of the 146 species of fish representing 27 families that can be found in the MPA, 23.29 percent are damselfish or anemone fish and 19.18 percent are wrasse (Haribon Foundation,

2005:215). It is estimated that the annual fishery from Apo Island increased eight times between 1981 and 2002 (Alcala, 1988; Maypa et al., 2002; Russ et al., 2004; Abesamis et al., 2006; Alcala and Russ, 2006).

### 2.3.2. Socio-cultural

Apo Island has 684 living in 129 households. About ninety-five percent of the residents rely on fishing for their livelihood. Commonly used fishing gears are hook and line, gill net and hand spear (Haribon Foundation, 2005:214). Other households and individuals are engaged in small business of selling household needs to island residents known locally as *sari-sari store*; fish trading to the mainland; vending of souvenir items to tourist; and employment at the local resorts as carpenters, cooks or food server and in other menial jobs in order to earn. There are two resorts in the area owned by foreigners who were formerly tourists to the island but later married locals, and eventually engaged in the tourism business (Oracion, 2001:16).

### 2.3.3. Economics

The average monthly income per household in Apo Island is Philippine peso (PhP) 1,450 (approximately US$ 29; exchange rate: US$ 1: PhP 50). About thirty-eight percent of the population has a secondary source of income such as vending, hollow block making, and hat/mat-weaving. Farming is also practiced by seventy percent of the households but since there is a lack of arable land, crops such as corn, sweet potatoes, cassava, beans, coconut, vegetables, other fruit trees and ipil-ipil are cultivated in small farm plots (La Viña, 2001:114-115). Tourism has been estimated

to earn US$ 100,000 annually for the Apo Island community with an additional US$ 35,000 annual income in diver's fees (Alcala, 2001; Alcala & Russ, 2006).

### *2.3.4. Governance*

In 1976, Silliman University initiated a marine conservation and education program in Apo Island. Six years later, an informal agreement was endorsed between the municipality of Dauin and Silliman University to implement the sanctuary with the local community protecting the 0.45 km long section of the southeast side of Apo Island. The *barangay captain* (elected chief of the village) revealed that the original objective of the sanctuary was for the sustainability of artisanal fisheries to address food security at the community level (White, 2001; c.f., Oracion, 2001:17).

In 1984, the Marine Conservation and Development Program of Silliman University implemented a comprehensive coastal resource management programme in Apo Island to establish "no take" marine reserves. A year later, Silliman University along with the local government and the community led the formation of the MCC, a core group composed of fisher folk, with the Philippine Constabulary – Integrated National Police and the Philippine Coast Guard assisting in law enforcement (Rosales, 2003:62), and the academic institution providing scientific and management advice. A marine management plan, part of which established the sanctuary was approved formally by the municipal government (though the original municipal ordinance was dated November 3, 1986) and established under the local government legislation with the following objectives as highlighted by Russ and co-author (1999:312):

1. To prevent the following activities:
   - fishing around the island by non-residents
   - fishing and gathering within the "no take" sanctuary
   - the use of destructive fishing methods, specifically dynamite fishing, muro-ami drive net fishing with weighted scare lines, spear fishing with SCUBA, cyanide fishing, and gill nets with very small mesh
2. To protect the coral habitat of fish;
3. To provide an undisturbed breeding site for fish in the sanctuary;
4. To allow build up of fish biomass in the sanctuary;
5. To increase local fish yield by export of fish (both adult and larval) from the sanctuary to the local fishing grounds; and
6. To encourage tourism.

In 1994, however, Apo Island was declared a Protected Landscape and Seascape under the Presidential Proclamation Number 438 making it part of the National Integrated Areas System (NIPAS). The management was then transferred under the administration of Protected Area Management Board (PAMB) with the majority of members from the national government. The Board created and standardized rules and regulations and a system of fixed fees for visitors. When the PAMB was not yet organized, Oracion (2001:20) describes the uncontrolled movement of off-site brokers and tourists in Apo Island. It was only in 1999 when PAMB Resolution No. 1 was enacted regulating tourist landing and activities to prevent further damage to the coral reef ecosystem. The amount of tourist entrance fees cost PhP 20.00 (US$ 0.40) and PhP 10.00 (US$ 0.20) for foreigners and Filipino tourists, respectively. Based on the regulations, only fifteen divers are allowed each day and no more than eight snorkelers are permitted at any one time in order to minimize the cumulative impact of human activities in the reserve area. Additional fees are charged depending on specific tourist activities including scuba diving,

snorkelling, camping, filming, lodging and cottages, using the picnic shed, mooring and anchoring.

The PAMB mandate stated that 75 percent of tourist-generated income would be channelled into development projects that the community selected to improve their livelihoods, with 25 percent going to the national treasury. Raymundo (2002:3) assessed that the participation of local communities through the Marine Management Committee (MMC) was reduced after Apo Island was declared a NIPAS site. The implication of declaring the Apo Island as a NIPAS site is discussed in the following chapter.

### *2.3.5. Critical management issues*

At present, one of the biggest problems confronting the Apo Island protected area is dive tourism. Because of its excellent coral cover relative to the rest of the country, Apo has become an increasingly popular destination for SCUBA diving. The large number of tourists and dive boats has become a threat to reef quality. In addition, local fishers claim that tourist divers drive away fish in their fishing grounds, and have reported incidences of fish traps being destroyed by tourists. The community decided to mark off a prime fishing ground with buoys to prohibit divers from entering the area (Raymundo, 2002:7).

While tourism has reduced overfishing in the area, the major recipients of tourism revenue are still resort owners, and dive and boat operators who visit the island (Cadiz & Calumpong, 2002; c.f., Raymundo, 2002:6). Sixty-two percent of the tourists are foreigners and the remaining thirty-eight percent are Filipinos. Since

forty-five percent of the tourists in the island are divers, the diving shops are the biggest brokers earning PhP 5,755,000 (US$ 115,100) from tanks and gear rental (Oracion, 2001:18). La Viña (2001:118) interviewed a community leader in Apo Island who states that dive resort owners and tour operators are well paid by the tourists but pay only token fees to the community. For example, rates are PhP 100 (US$ 2) per day for big pump boats, PhP 50 (US$ 1) per day for bancas, and PhP 50 (US$ 1) per tourist. The mainland area of the municipality the Dauin, which faces Apo Island, started constructing resorts that are owned by foreigners in partnership with Filipinos. Although tourism has improved the standard of living by bringing infrastructure to make the area more accessible, the danger exists that people who are not originally residents in the area starts building different establishments, thus reducing the benefit to the fishers (Vogt, 1998:28).

## *2.4. Summary of Findings*

The distinct characteristics of the different MPAs in terms of its legislation, management, enforcement, resource use, number of dive resorts, and user's fees are summarized in *Table 2*. The different policies affecting MPAs reflect the kind of discourse among the different stakeholders. The study of power arrangements is therefore vital to the analysis of the impacts of tourism because power governs the interplay of individuals, organizations, and agencies influencing, or trying to influence the direction of policy (Lyden et al., 1969; Hall, 1994).

**Table 2: Major Characteristics of the MPAs as Coastal Tourism Sites.**

| MPA Characteristics | Tubbataha | Anilao | Apo Island |
|---|---|---|---|
| MPA Legislation | ▪ Presidential Proclamation No. 306 (1988)<br>▪ UNESCO World Heritage Site (1993) | ▪ Presidential Proclamation No. 1801 (1978) as tourist zone<br>▪ Municipal Ordinance No. 11-91 declaring portions of various barangays as MPAs | ▪ Municipal Ordinance (1986)<br>▪ Presidential Proclamation No. 438 designating the area under NIPAS |
| Management | Tubbataha Protected Area Management Board (TPAMB) | Resource Executive Committee (REC) | Protected Area Management Board (PAMB) |
| Enforcement | TMO through its marine park rangers in partnership with the Philippine Navy and Coast Guard | Resort owners | *Bantay Dagat* (fish wardens coming from Apo Island residents) |
| Resource Use | ▪ Tourism<br>▪ Diving<br>▪ Limited to municipal fishing | ▪ Tourism<br>▪ Diving<br>▪ Both commercial and municipal fishing<br>▪ Commercial Industries | ▪ Tourism<br>▪ Diving<br>▪ Limited to municipal fishing |
| Number of Dive Resorts | - [a] | Mabini – 34 [b]<br>Tingloy – 5 [b] | 2 [c] |
| Amount charged for the Entrance Fee or Diver's Fee (in US$) | US$ 25/visit– local divers [d]<br>US$ 50/visit – foreign divers [d] | US$ 2/day [e]<br>US$ 36/year [e] | US$ 3/day – diving within the sanctuary [f]<br>US$ 1.50/day – diving outside the sanctuary [f]<br>US$ 0.40 – entrance fee for foreigners [f]<br>US$ 0.20 – entrance fee for locals [f] |

[a] *Due to absence of freshwater in Tubbataha, there are no dive resorts within the area. Only dive operators from Puerto Princesa, Palawan and other places like Manila and Cebu bring in divers.*
[b] *Milne and Christie, 2005.*
[c] *Laviña, 2001.*
[d] *Tongson, 2004.*
[e] *Based from the Memorandum of Agreement signed by both municipalities of Mabini and Tingloy implementing a unified fee scheme for the two LGUs.*
[f] *Cadiz and Calumpong, 2002.*

As an important natural asset, the Tubbataha is protected by various local and international policies as a global priority area under the World Heritage Site. Before Tubbataha was a national park, overfishing was experienced due to the absence of

property rights or institutions that might provide exclusive control and management of resources. Historically, the management of TRNMP was a trial-and-error process given the complexity of management issues and a lack of defined roles and responsibilities among different government agencies. Eventually, the day-to-day operations were handed over to the TMO whose members are all based in either Puerto Princesa or the communities closest to Tubbataha. The direct support from the TMO office allows greater flexibility and faster response time than when the management was under the national government.

It is paradoxical that the coastal area of Batangas, historically declared as a tourism zone, was also developed as an industrial site under the Resource Executive Committee headed by the municipal government, The situation illustrates the lack of coastal zone management planning by the previous authorities when it was declared as a tourism zone in the late 1970s. Indeed, this is a major threat not only to the tourists, but also to the MPAs and the communities living in the area. In contrast, the relative success of Apo Island is attributed to the sense of ownership by the local communities that persist even after it was declared as a NIPAS site despite the bureaucratic nature of the current management structure.

The MPA law enforcement in Tubbataha is handled by the Philippine Navy and Coast Guard with support from marine park rangers trained by WWF-Philippines and other NGOs to appreciate the ecological importance of the area. In Anilao, local communities were once active in enforcing and guarding the MPAs due to the strong presence of environmental NGOs in the area who assisted the residents in establishing the MPAs. However, one perceived weakness seen in organizing fisherfolk

communities is their inability to link with other stakeholders despite the amount of time spent by NGOs during the early 1990s to build organizational capacity in MPA management. Institution building is a long-term and costly process which can take three to five years to put a self-sufficient organization in place (Carlos & Pomeroy, 1996; Berkes et al., 2001). The proximity of Anilao to Manila also made the area vulnerable to rapid urbanization and migration. Later, when the dive resort was established right across the sanctuary, the residents lost its interest in the managing the resources. Unlike Anilao, Apo Island is relatively far from Manila (a one-hour flight from Dumaguete City, the capital of Negros Oriental) and the community support for the Apo Island MPA is actively maintained since the original ideas and concepts in the management of marine resources evolved from the local community itself (Alcala & Russ, 1999:317).

In order to effectively manage the MPAs, all the study areas employ a user's fees system. Comparing the three sites, the user's fee in Tubbataha is more than fifteen times higher than in Apo Island and Anilao allowing flexibility for the TMO to efficiently utilize the funds and fulfill its management responsibilities to protect the MPA while providing livelihood assistance to adjacent fishing communities. In comparison, the minimal fees charged for the divers and the various sources of livelihood opportunities in Anilao does not translate to effective management of MPAs but only promotes mass tourism which ultimately threatens the coastal resources. On the other hand, while coastal tourism is a source of financing for conservation in Apo Island, the conflict arises as the national government needs to clarify the jurisdictional mandates and responsibilities of those involved in the

protected area planning and management. Prior to the inclusion of Apo Island as a NIPAS site, the local communities directly benefit from the user's fees while being involved in the drafting of the municipal ordinance, surveillance and collection of user's fees, donations, and in the construction of community education centre which are all critical factors in maintaining the interest of the residents towards marine conservation.

# CHAPTER 3: ANALYSIS AND DISCUSSION

This chapter analyzes the effectiveness of policies and their integration to tourism and development, and the impacts of coastal tourism on MPAs mentioned in the previous section. While MPAs have promoted tourism and development, it must be acknowledged that this growth has generated a number of socio-economic, environmental and political problems. In the Philippines, poverty and inequality have remained persistently high, but with significant differences between the country's fifteen administrative regions (Balisacan & Pernia, 2001; Irz et al., 2007). Thus, it is necessary to analyze the politics of State-community relations in understanding how these connections are experienced in the Philippine coastal waters and communities. The next section of the paper will show the interplay of structural and institutional factors.

## *3.1. Conflicting Laws and Policies on MPAs*

The Local Government Code (LGC) of 1991, the NIPAS Act of 1992, and the Fisheries Code of 1998 establish the legal and policy framework for MPAs in the Philippines. Under the LGC, the authority for the management of the coastal zone, including the establishment of MPAs, is delegated to the municipalities. The law establishing NIPAS contains provisions for securing communities in the protected areas. However, because the majority of DENR personnel have forestry, the actual implementation of the NIPAS suffers from a heavily terrestrial orientation backgrounds (Licuanan & Gomez, 2000:21) without due consideration to the distinct

nature of the coastal and marine ecosystems. The Philippine Fisheries Code is particularly important as it encourages the establishment of reserves, refuges and sanctuaries and also requires all coastal communities to set aside fifteen percent of their coastal areas, where applicable, as marine sanctuaries (Licuanan & Gomez, 2000:19).

Some national and international policies for the sustainable use of marine resources and to ensure equity in resource use and distribution of benefits are set out in *Table 3*. These policies are the foundation for establishing a systematic, effective and integrated mechanism or structure to democratize and rationalize access to, and control of, resources between different stakeholders and bring about a just distribution of resources.

**Table 3: Some National and International Policies Addressing Resource Use Conflict and Sustainable Use of Marine Resources.**

| | | |
|---|---|---|
| ***Agenda 21, Chapter 17. (United Nations Department of Economic and Social Affairs, 1993)***<br><br>***Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources.*** | Section 17.1. | a. Integrated management and sustainable development of coastal areas, including exclusive economic zones;<br>b. Marine environmental protection;<br>c. Sustainable use and conservation of marine living resources of the high seas;<br>d. Sustainable use and conservation of marine living resources under national jurisdiction;<br>e. Addressing critical uncertainties for the management of the marine environment and climate change;<br>f. Strengthening international, including regional, cooperation and coordination;<br>g. Sustainable development of small islands. |
| ***Local Government Code of 1991 (Republic Act 7160)*** | Section 3 Article I | Local government shall share with the national government the responsibility in the management and maintenance of ecological balance within their territorial jurisdiction. |

**Table 3…continuation**

| | | |
|---|---|---|
| ***National Integrated Protected Areas System (Republic Act 7586)*** | Section 2 | It is declared that the policy of the State to secure for the Filipino people of present and future generations the perpetual existence of all native plants and animals through the establishment of a comprehensive system of integrated protected areas within the classification of national park as provided for in the Constitution.<br><br>The National Integrated Protected Areas System (NIPAS) shall encompass outstanding remarkable areas and biologically important public lands that are habitats of rare and endangered species of plants and animals, biogeographic zones and related ecosystems, whether terrestrial, wetland or marine, all of which shall be designated as protected areas. |
| ***Philippine Constitution of 1987*** | Article II, Section 10 | The State shall promote a just and dynamic social order that will ensure the prosperity and independence of the nation and free the people from poverty through policies that provide adequate social services, promote full employment, a rising standard of living, and an improved quality of life for all. |
| | Article II, Section 10 | The State shall promote social justice in all phases of national development. |
| | Article XIII, Section 1 | The Congress shall give highest priority to the enactment of measures that protect and enhance the right of all the people to human dignity, reduce social, economic, and political inequalities, and remove cultural inequities by equitably diffusing wealth and political power for the common good. To this end, the State shall regulate the acquisition, ownership, use, and disposition of property and its increments. |
| | Article XIII, Section 2 | The promotion of social justice shall include the commitment to create economic opportunities based on freedom of initiative and self-reliance. |
| | Article XIII, Section 7 | 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. It shall provide support to such fishermen through appropriate technology and research, adequate financial, production, and marketing assistance, and other services. The State shall also protect, develop, and conserve such resources. The protection shall extend to offshore fishing grounds of subsistence fishermen against foreign intrusion. Fish workers shall receive a just share from their labour in the utilization of marine and fishing resources. |
| ***Philippine Fisheries Code (Republic Act 8550)*** | Chapter I, Section 2.E. | To provide support to the fishery sector, primarily to the municipal fisherfolk, including women and youth sectors, through appropriate technology and research, adequate financial, production, construction of post-harvest facilities marketing assistance, and other services. The protection of municipal fisherfolk against foreign intrusion shall extend to offshore fishing grounds. Fishworkers shall receive a just share for their labour in the utilization of marine and fishery resources |
| | Chapter I, Section 2.G. | The State shall ensure the attainment of the following objectives of the fishery sector:<br>1. Conservation, protection and sustained management of the country's fishery and aquatic resources<br>2. Poverty alleviation and the provision of supplementary livelihood among municipal fisherfolk |

At the national level, government agencies are generally too understaffed and under-funded to carry out effective management and monitoring of marine resources, and there is a lack of properly trained personnel within government. For this reason,

Luna (1997) and White and Courtney (2002) feel that municipal level-managed MPAs where management is devolved to the local communities with support from the municipal government are a more realistic management option given the amount of available resources. They feel that municipal ordinances provide sufficient protection for local MPAs since the municipality can offer a similar level of protection to coastal areas within their jurisdiction as the national government. In addition, they have the ability to support on-the-ground activities in managing the coastal zone.

Agrawal and Gibson's (1999:641) study on the role of community in natural resource conservation considers experiences in institutionalizing community-based conservation that requires local groups to have access to adequate funds for implementing the rules they create. Unlike the local communities living near Tubbataha that were provided with supplemental livelihood when the MPA was established, both the local communities of Apo Island and Anilao were disenfranchised. Despite the success of Apo Island as community-initiated MPA, there are unresolved issues about who is ultimately responsible for managing the area. For example, there are contradictions between the NIPAS Act and the Local Government Code. The LGC has provisions that allow local governments to receive as much as thirty percent in the wealth generated from resources found within their jurisdiction. Although the LGC was drafted earlier, the NIPAS Act did not specifically override the revenue-generating functions of the LGUs for the environment and natural resources sectors. In Rosales's (2003:35) analysis, the municipal government of Dauin in Apo Island is pitted against the PAMB in trying to

generating received revenues, creating considerable confusion and consequently delaying the implementation of plans and programmes for the MPA.

Another issue raised by Rosales after interviewing stakeholders among selected NIPAS areas in the Philippines is the overly complicated and centralised process of releasing Integrated Protected Area Fund (IPAF)[8] to the different sites. (See *Figure 7.)* The entire process can take around five months to complete.[9] Documents are delayed by the Department of Budget and Management (DBM) for the longest time, taking about three months to clear. It can take about a month each for the central DENR office and the Protected Area and Wildlife Bureau to clear documents, while the Provincial Environment and Natural Resource Office (PENRO)[10] and the Community Environment and Natural Resource Office (CENRO)[11] take around three weeks. The quickest turn around occurs at the DENR regional office level, where it takes less than two weeks to endorse the papers. Considering that these financial resources are essential for the livelihoods of the local community dependent on the natural resources as well as for improving ecotourism in the area, the delays not only cause problems in delivering essential services, but also create public mistrust among stakeholders.

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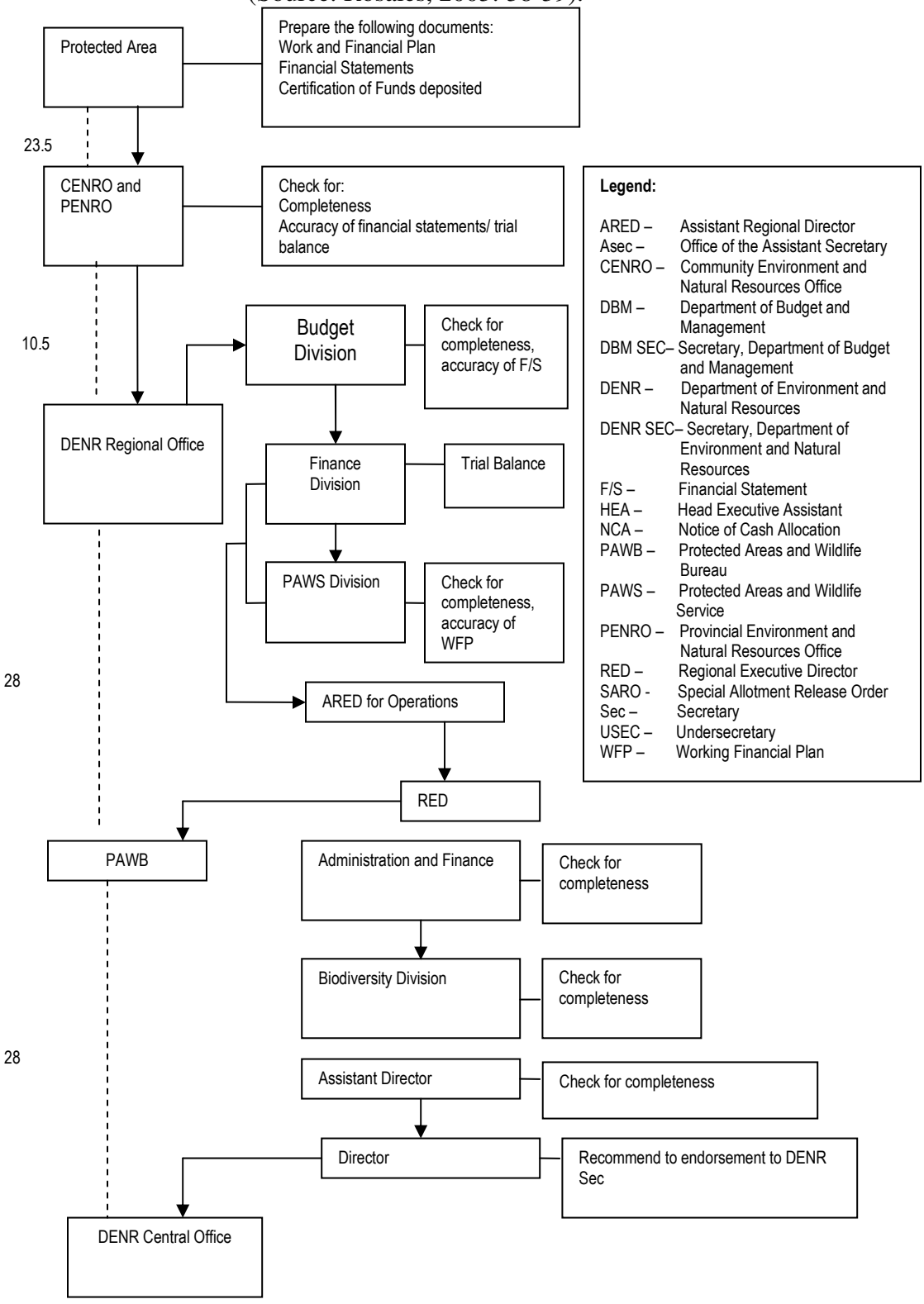
[8] Under Section 16 of NIPAS Act, the IPAF is established as a trust fund for purposes of financing projects of the System. The protected area may solicit and receive donations, endowments, and grants in the form of contributions, and such endowments shall be exempted from income or gift taxes and all other taxes, charges of fees imposed by the government or any political subdivision or instrumentality thereof.

[9] See ***Appendix*** for a detailed explanation of the administrative flowchart.

[10] Under DENR Administrative Order No. 30 or *"Guidelines for the Transfer and Implementation of DENR Functions Devolved to the Local Government Units,"* the PENRO refers to the DENR office, headed by the Provincial Environment and Natural Resources Officer appointed by the Secretary of the DENR, which is responsible for the implementation of DENR policies, programs and projects in the province.

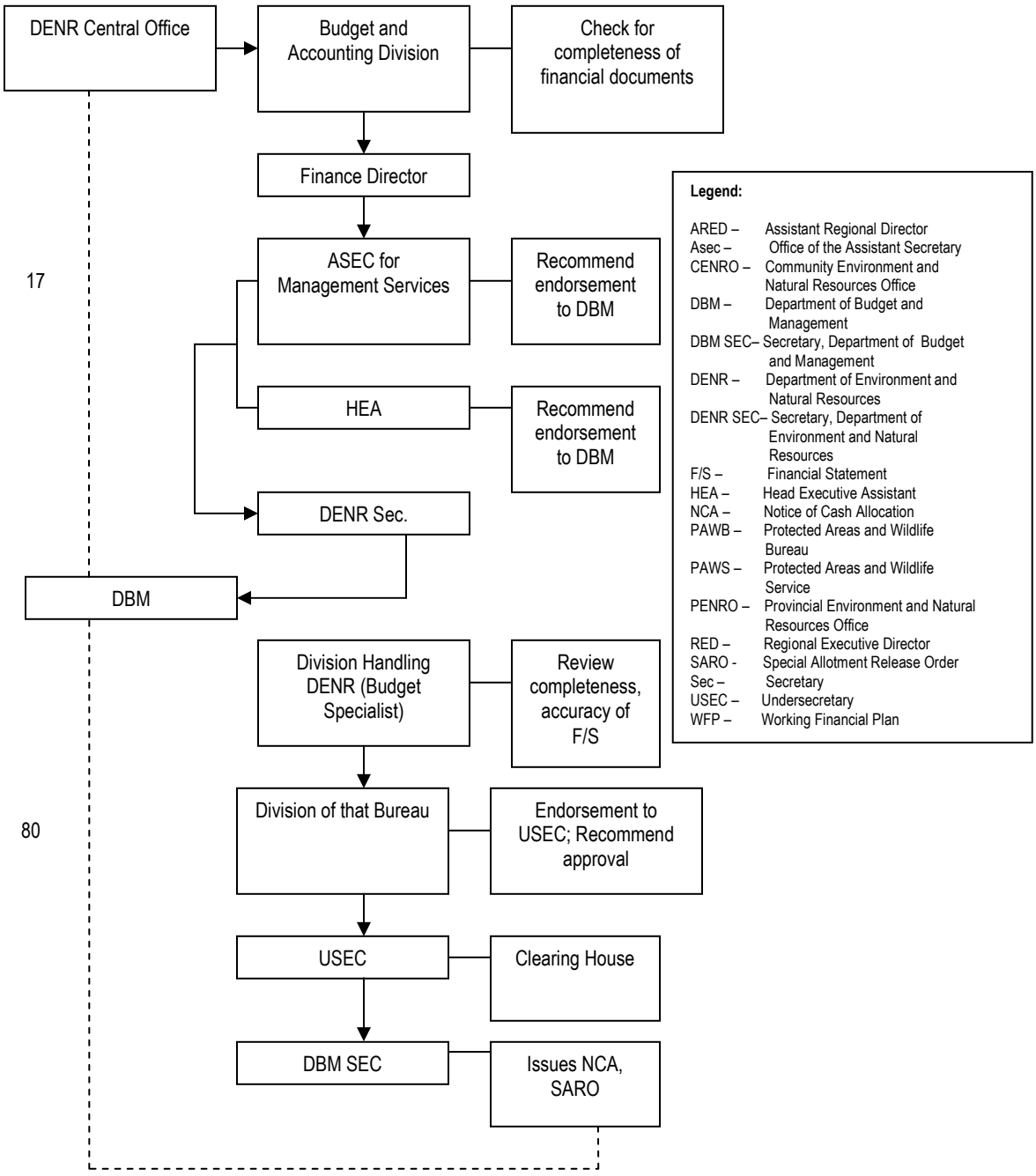
[11] Under the same policy, the CENRO refers to the DENR Office, headed by a Community Environment and Natural Resources Officer appointed by the Secretary of DENR, which is responsible for the implementation of DENR policies, programs, project and activities and the enforcement of environment and natural resources laws and regulations in the community level.

Figure 7: Administrative Flowchart of Current IPAF Process
(Source: Rosales, 2003: 38-39).[12]




[12] Numbers beside the broken lines represent the average number of days it takes before received by the next agency.

**Figure 7….continuation**




Average number of days = 187 days

It is ironic that Apo Island, the most successful example of a community-based management MPA, has resulted in legislation placing it back under the control of the national government (Russ & Alcala, 1999; Alcala & Russ, 2006). A change in policy that supersedes the municipal ordinance and putting the control under the national government only prevents the active involvement of local communities in MPA management in deciding how they want to manage their resources. Thus, the national government needs to clarify the jurisdictional mandates and responsibilities of the PAMB involved in protected area planning and management, since it is widely recognized that governments have a great potential to shape how tourism is promoted, planned, managed, and regulated (Wearing & Neil, 1999:24).

Well-planned and managed MPAs are developed within the local context to give adequate consideration to the different parties involved. While both Tubbataha and Apo Island are managed under the national government, the advantage of the former is that even though the park remains under the national government, the DENR turned over its overseeing function over the TPAMB to the PCSD (though the secretariat function was then turned over to the TMO). The representation of DENR is delegated from the Regional Executive Director to the PENRO, which actually serves to greatly increase the department's participation in parks management because the PENRO is based in Puerto Princesa and not Manila (Dygico, 2006:18). Given that the Tubbataha and Apo Island as MPAs are both under the jurisdiction of the national government, the same policy mechanism can be possibly applied to the latter in delegating the role to the provincial or municipal government. This management structure means that administrative decisions are made at the local rather

than at the national level for a faster, more effective, and efficient decision making minimizing bureaucracy and delays in transfer of funds that affects MPA operations. The delegation of responsibility also minimizes bureaucracy and delays in transfer of funds that affects MPA operations.

## *3.2. Resource Use Conflict*

Of all stakeholders, local communities directly experience the socio-cultural impacts of tourism and are significantly vulnerable to the deleterious impacts of tourism development (Wearing & Neil, 1999:73). In Anilao, there is an increasing concern that local people's traditional uses of coastal resources are not being adequately protected. Hence, protecting these uses is very important management goal. The people residing permanently in tourist destinations suffer most when tourism becomes uncontrollable and has reached its peak (Oracion, 2001:9). In addition to the loss of access to resources, the local fishers lament that the construction of hotels and boat landings on beaches that have accompanied the growth of the tourism industry has caused a decrease of shellfish populations (Christie, 2005:265).

Unfortunately, the ordinance amendment banning SCUBA diving in the sanctuaries of Anilao is not well enforced because it is understood in different ways by different stakeholders, and there is a general lack of understanding of the legal definitions of the MPAs. In a study conducted by Oracion and co-authors (2005:401), fifty percent of those interviewed believed that diving inside the MPAs is legal and that fishing is illegal, while thirty nine percent of those interviewed (correctly) stated that both SCUBA diving and fishing are illegal in the MPA.

Pollnac and Pomeroy (2005:249) conclude that participation in MPA management does not happen spontaneously, but is influenced by the potential economic benefits, and the sharing and continuance of these benefits. All of which has an impact on the sustainability of the resource management efforts. In Anilao, some fisherfolk communities have lost their interest in resource conservation and must first understand how coastal resource management can address resource degradation. The fisherfolk communities should realize the link between habitat destruction and decreasing fish catches, and how resource conservation can bring benefit to their livelihoods before they take appropriate steps to protect marine resources. Perhaps, an important lesson from the experience in Tubbataha that can be applied in Anilao is that displaced fishers and others who pay the conservation cost deserve some financial benefit to empower them to negotiate with those such as tourism operators who are benefiting from resource conservation (Dygico, 2006:29). For example, the livelihood assistance provided by WWF-Philippines in Cagayancillo decrease fishing pressure in the area.

Unfortunately, coastal tourism within MPAs in Anilao and Apo Island only creates problem by favouring privileged sectors in these areas that may be able to access and control the resources. For instance, despite providing logistical and financial support for the *bantay dagat*[13] (fishwarden/guard)), resort owners in Anilao argue that they have the authority to make unilateral decisions about the MPAs (Oracion et al., 2005:407). After the NGOs left in Anilao, the community was not

[13] *Bantay Dagat* members are usually fishers who are residents in a particular coastal area. Normally, they only receive a decent honorarium either from the municipal government or some private institutions for guarding the MPA.

adequately prepared to take full responsibility for managing the resources and eventually lost all decision making power as the resort owners took over. Also, the accessibility of Anilao to Manila encouraged investors in building resorts within the area. In Apo Island, the relatively isolated area and the involvement of the local communities in the decision making process at the time the MPA was established assures strong participation from the residents. Until now, support for the MPA remains due to the strong social relationship that exists in a homogenous community. The capacity of community groups to nurture development within MPAs is more sustainable and appropriate due to their ability to respond to local socio-economic and cultural needs.

Coastal resource management should extend beyond reducing the conflict among stakeholders and promote the sustainability of the community and MPAs. Effective resource management works best where there is a mechanism for re-circulating back into the communities some of the wealth generated by more intensive, superior management (Noble, 2000). At the moment, only Tubbataha has managed to resolve resource use conflicts at the local level with the cooperation of various sectors. However, Tubbataha remains at risk from commercial fishing and poaching from vessels from outside the local area.

## *3.3. Economic valuation of natural resources*

The Philippine coastal resources have long been vulnerable to over-exploitation, destructive fishing practices, pollution, and other development-related activities. Unfortunately, the economic, as well as environmental policy systems have frequently viewed these resources as marketable goods. Often local communities who

may have contributed to the degradation of resources are pitted against the State, local politicians, and private and multi-national investors who have converted the coastal areas into tourism zones without due consideration of the negative externalities that the tourism industry may create. One strategy that can be used to counteract the continuing degradation of coastal resources from development and from everyday actions of many people is to inform them about the economic value of the resources being lost.

While the national and local governments have full control over coastal resources through the issuance of resource access and use permits, the tendency is that they authorize the exploitation of coastal zones in a manner that conflicts with community management. The situation in Anilao is a case in point in which local communities are on a losing side particularly when tourist resorts deprive them from fishing or the use of coastal areas. To aggravate the situation, the user's fees institutionalized in the area amounting to US$ 2 per day do not compensate with the resources being exploited by the dive resorts and tourists in the area and the loss of access to the fishing grounds by the local communities. Comparably, the value of long-term protection of the MPA contributed by the communities in Apo Island for more than twenty-five years is not commensurate to the amount of user's fee of US$ 3 per day while resorts constructed in adjacent islands are flourishing and can be a threat to the natural resources in the future. However, the contribution of the local communities in establishing the MPAs in Anilao and Apo Island has been undervalued and have allowed the resort owners to benefit from their efforts. In Tubbataha, due to the autonomy of TMO from the national government, the

remoteness of the area and the limited number of interest groups involved (primarily preservationists and resource users such as fisheries, commercial fishing operators, tourists, and dive operators), the TMO was able to put a premium on the resources by charging fees more than US$ 50 considering the remoteness of the area. Eighty percent of the fees go to law enforcement while twenty percent is allocated for IEC, capacity building, ecosystem research, policy and advocacy, and assistance to the municipality of Cagayancillo in developing alternative livelihoods and sustainable coastal resource management strategies. Indeed, the economic value of a protected area not only depends on the biological and economic factors, but also by the institutions that are established to manage the resources contained in the protected area (Munasinghe & McNeely, 1994:4). The distribution of benefits derived from user's fees among the MPAs is highlighted in the following section of this chapter.

Resource valuation offers a strong economic argument to preserve MPAs by showing the value of the coastal resources and how host communities and tourists can value them. A study indicates that an investment of US$ 100,000 per year for management and conservation produces an annual revenue from the natural resource base through improved fisheries and tourism yields of US$ 3,871,000 after five years (White et al., 2000; White & Rosales, 2003). However, the user's fees collected for all the MPAs must reflect the management cost of tourism and of managing the MPAs. The non-market environmental values of the coastal resource must also be weighed in decision making. Protected area management can only be achieved if there are clear tourism objectives which are compatible with sound coastal resource

management as well as transparency and accountability in generating revenues that are then translated into direct benefits to local communities.

## *3.4. Economic Incentives and Equitable Sharing of Benefits*

An enabling environment for MPAs within tourism areas needs to fully integrate the poor to participate in tourism and development, and create spaces and opportunities for the equitable distribution of economic benefits. This is not easy since these prejudices have their roots in the values, culture, beliefs, and social structure, and are embedded in the social institutions, markets and economic processes. Such biases cannot be simply eradicated by providing the poor with materials, training, or credit.

Community groups are crucial for the conservation and sustainable use of coastal resources. In Anilao, the dive shop owners who are most involved in resource management are generally from Manila, much more affluent than local fishers, and well connected politically with local officials (partly as a result of election campaign contributions). As a result, these elites are able to exert greater influence over MPA management practices and have usurped control from the fisherfolk (Peluso 1992; Trist 1999; Sandersen & Koester 2000; Lowe 2003; Oracion 2003; Christie 2004). Also, it is not impossible that local government officials have a vested interest in encouraging local or foreign elites to invest in a coastal tourism area because they can be powerful political allies and continue promoting their political interest. Thus,

instead of placing MPA-related laws in the hands of a small number of local elites, the potential for involving local groups in enforcing rules, incentives and penalties and developing a shared understanding of effective resource use and conservation should be explored.

The distribution of benefits within the community is equally important. This may be facilitated by a local institution operating in a transparent and accountable manner. A study by Arin and Kramer (2002:178) showed that because of the lack of transparency cumbersome bureaucracy, and corruption within the Philippine government, tourists visiting in Anilao would prefer an environmental NGO as the institution to manage entrance fee revenues. Local and national government agencies were the least trusted by the respondents. However, the NGO should not focus exclusively on conservation at the expense of local community needs.

Benefits should also commensurate with the impacts on the local communities from lost access to resources, damages to land-based activities, and how much of the tourism revenue goes back to local communities. In Tubbataha, local claim to traditional rights to the park area were addressed in the management plan with more livelihood projects to directly benefit Cagayancillo residents along with some provision for access to resources in the buffer area of the park and revenue sharing (White & Courtney, 2002:20). However, before regulating diving activities becomes a major priority in resource management, enabling the artisanal fishers to receive benefits from the results of the MPA management is more important for them to sustain their livelihoods. Establishing linkages with policy-makers, policy

formulation processes, and networking with other stakeholders are important means of an empowering process resulting to social change. As soon as the fisherfolk communities organized themselves into collective action and find their voice, they can manage to control their resources in order to sustain their livelihoods.

When a protected area is managed as an ecotourism site, biodiversity conservation should co-exist harmoniously with local resource use and livelihoods. The conservation of coastal ecosystems should incorporate the perspective of sustainable livelihoods and sharing benefits equitably. For example, Raymundo (2002:6) reports that the funds derived from tourism in Apo Island are used to support a monthly health care clinic on the island, including the transportation and meals costs of a team of volunteer doctors and nurses from the Marina Clinic in the Municipality of Dauin. During rough weather, the clinic of the mainland is inaccessible to islanders. Some of the tourism funds are also used to pay the honorarium for the *bantay dagat* members, garbage collectors, and those in charge in the tourism assistance centre. These social services not only benefit the local communities but also support the welfare of the tourists.

## *3.5. Equal participation of stakeholders*

The issue of centralized control over resource management is important when these power relations influence the environment. Some possibility of success at decentralizing resource management exists with the appropriate combination of community participation, environmental education, economic incentives and a clear legal mandate operating in conjunction with long-term institutional support from

government, NGOs, academe or other institutions (White & Vogt, 2000:549). Similarly, D'Amore (1983:152-156) and Murphy (1988:97) suggest that tourism planning should be based on development goals and priorities identified by residents. They predict that a concern for "maintaining the integrity and quality of local opportunities for fishing, hunting and outdoor recreation would be high among these goals."

The Philippine national government should recognize the archipelagic nature of the country and how it affects local participation. The Philippine archipelago offers a mix of large, densely populated islands with many communities and multiple resource users, as well as smaller remote sites with few commercial or industrial activities. While Tubbataha which is an isolated area with no resident population, the Mabini-Tingloy and Apo Island study sites show that the management of these islands should be linked to socio-cultural characteristics of the site to provide a sustainable mechanism for the inhabitants to manage MPAs. A distinct advantage of community-based management is its intergenerational nature. An organized community, with three or four generations living in the same community, provides an ideal social structure to help ensure the continuity of management and protection of coastal areas, hence, a high probability of long-term sustainable and successful management (Alcala & Russ, 2003:19). Building the capacity and the involvement of local communities in tourism and development, and MPA management is essential in empowering resource users to participate in resource management.

Participation has different meaning in different contexts. It should be related local people, issues, and programs or initiative, and it must be the people involved in

the process who decide how a specific framework should evolve. Participation has no meaning if the people involved do not share an understanding of its purpose and a belief in its merits in the broadest sense. The process of participation is itself as important as the outcome of the procedure (Treby & Clark, 2004). In Tubbataha, people participate in management the management process by establishing institutional commitments among government agencies, NGOs, the private sector, and the local communities. In Apo Island, participation is more wide spread but less formal as communities have a common understanding of community-based management of MPAs even before the enactment of the municipal ordinance and its designation as a NIPAS site. The community assist as volunteers in the protection, research, and monitoring and evaluation of the coastal resources. In Anilao, most decision making is done by resort owners and participation of the local communities are limited to enforcement as bantay dagat.

### *3.6. Active enforcement of MPA laws*

Marine patrols are one important means of preventing illegal fishing boats from entering MPAs. To achieve this, law enforcement must be complemented by IEC. Training is one of the most common strategies to enhance capacity. Training provides knowledge about the concepts and practical aspects of resource management. In the early years of managing Tubbataha, a training needs assessment revealed that the military personnel and park rangers assigned to protect the MPA had limited understanding and knowledge of the ecological and socio-economic importance of conserving the MPA. They also lack paralegal knowledge in the event

of apprehensions and subsequent legal suits. They also do not have the equipment and facilities for law enforcement.

Strengthening the management capability of different stakeholders is critical for the conservation and sustainable use of the coastal resources. In order to build the capacity of law enforcers in Tubbataha, a Comprehensive Training for Marine Park Rangers among the various institutions involved in enforcement was developed by WWF-Philippines with the following training objectives and scope (Dygico, 2006):

- Basic ecology/the marine environment – to enhance the participants' understanding and appreciation of the resources they are tasked to protect
- Visitor management – to provide pointers and advise on how to deal with tourists visiting the park
- Philippine environmental laws – to familiarize law enforcers with all the laws that apply to Tubbataha
- Paralegal procedures – to increase participants' understanding of law enforcement procedures and operating practices, such as the conduct of arrests, searches, and seizures, proper documentation, procedures, etc.
- The TRNMP management plan – to impart understanding of the management structure and the strategies being implemented, and to increase appreciation of the vital role of effective enforcement in park management
- Crisis management – to enable participants to determine appropriate courses of action to take in crisis and/or emergency situations, and to develop a contingency plan for Tubbataha
- Equipment maintenance and trouble shooting – to minimize the need to send technicians and spare parts, because of the inaccessibility of, and costly transport to the reefs
- Study tours – to expose the enforcements to educational opportunities and lessons learned in other MPAs
- Briefings prior to assignment and after a tour of duty – to enable the rangers to give feedback and recommendations on how to improve procedures and performance of their functions

Enforcement of MPA laws is even more difficult in Anilao due to the confusion between the municipal ordinance prohibiting diving and fishing in the MPAs. After more than a decade, it was only in 2006 that divers are now "legally" allowed to dive in the MPA in Mabini through the amendment of Municipal

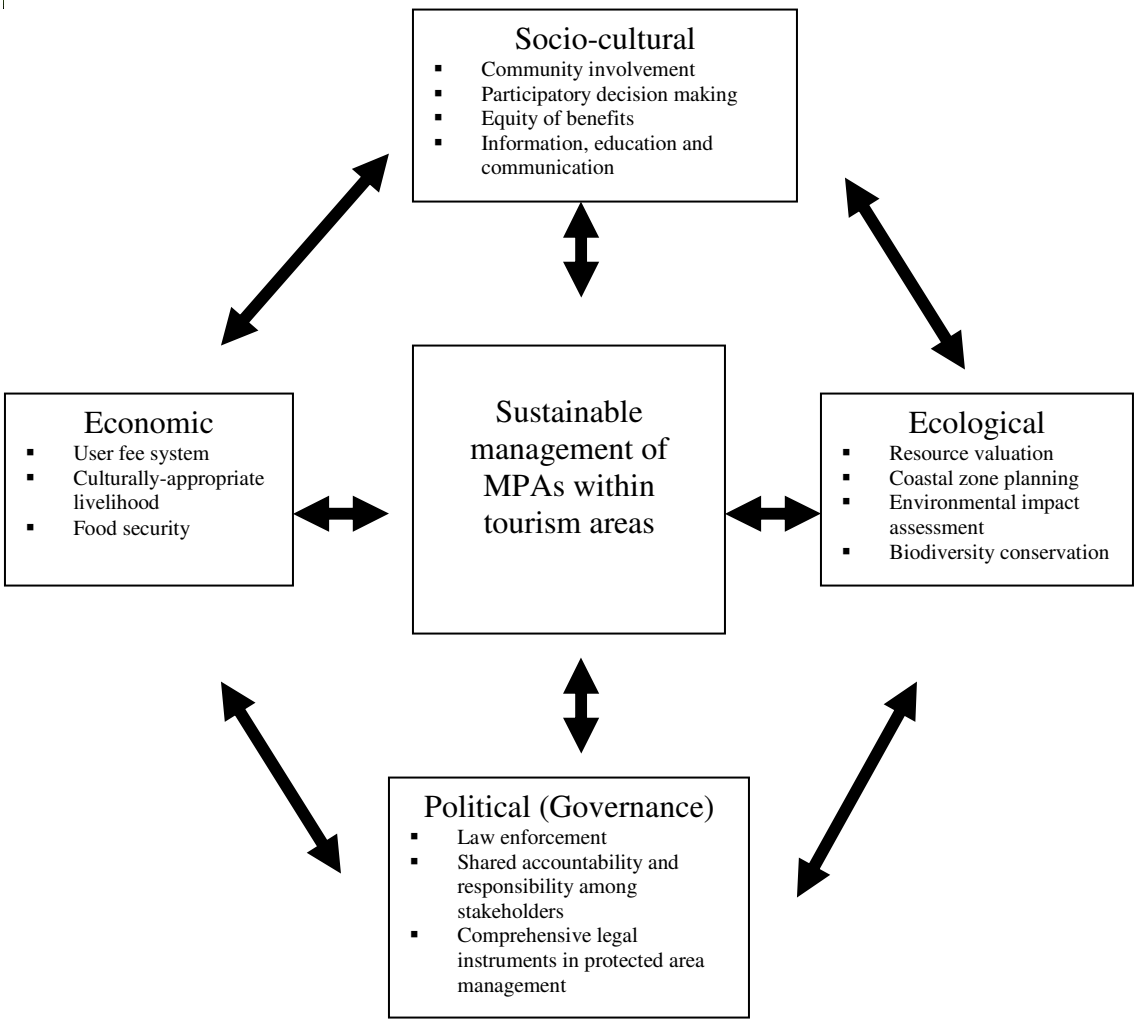
Ordinance 06-93 that earlier disallowed diving among the three MPAs (Twin Rocks, Arthur's Rock and Cathedral Rock). The amending ordinance (No. 04-2006) entitled, *"An ordinance declaring portions of Barangay San Teodoro and Bagalangit, marine sanctuary and reservation area"* redefined the allowed and prohibited uses in the area. Previously, diving without penalties has been an issue particularly among some local fisherfolk who acknowledges the "no-take, no-entry" zone policy imposed on all users including the divers. After due consultations, it is now clear that fishers are banned from fishing in the sanctuaries while divers will be allowed only upon paying certain fees. The amendment to the ordinance highlights key provisions regarding the use of the three MPAs with its core zones including: (a) diving and snorkeling are allowed in which a user fee system shall be observed prescribing a "no ticket-no entry policy"; (b) crowding of dive sites must be avoided and there shall only be a maximum of two dive boats allowed at a given time per sanctuary; (c) check out dives or refresher diving courses are not allowed inside the sanctuary; (d) fishing is strictly prohibited. On the other hand, traditional fishing methods will still be allowed in the marine reserve area that is outside the marine sanctuaries (Medina-Dolor, 2006).

## *3.7. Integrated Management for MPAs in Tourism Areas*

After analyzing and discussing various issues confronting the MPAs, this paper attempts to integrate the socio-cultural, economic, ecological, and governance aspects of managing MPAs in tourism areas as described in *Figure 8*. Coastal tourism should address the negative impact of development to the environment and its

degradation by linking biodiversity conservation of MPAs with socio-cultural and economic development. For example, linking the user's fees system (economic) with the equitable distribution of benefits (socio-cultural) within the tourism area can be translated into improved social services like provision for health care and supplemental livelihoods for local communities. Similarly, in integrating governance and ecological factors, institutional strategies should identify the carrying capacity and minimize the creation of unnecessary infrastructure. Indeed, dialogue is necessary among various stakeholders. The sustainability of resources indicated in the framework is not necessarily considered as an endpoint, but serves as a guiding principle that incorporates different disciplines involving the interaction of people with the natural resources.

Figure 8: A Proposed Framework for Coastal Tourism within MPAs in the Philippines.




The long-term goals of an integrated management of MPAs are the sustainable use and the management of coastal resources, regeneration of depleted resources, and equitable access and use of resources. In addition, one important part of integrated management is the formulation of a coastal resources management plan. The management plan is an output of consultative meetings among government

agencies, NGOs, local communities, and the private sector. The stakeholders involved in the tourism area point out various coastal resource management issues and possible strategies in the area. Government agencies concerned with implementing specific MPA management strategies are also defined. Higher-level institutions that have research capacity and access to scientific information should be of service to communities. In the case of Apo Island, Raymundo (2002:7) proposes that results of tourism monitoring by community members be used to plan a follow-up workshop for dive operators to formulate additional management strategies to address fishers concerns. Data from the fish catch monitoring by the *bantay dagat* may also be applied in fisheries management. The case of Tubbataha acknowledges the importance of providing supplemental livelihoods for adjacent communities to decrease fishing pressure in the area while involving stakeholders from the municipal, provincial, and national government while the challenge for Anilao is to manage tourism and seek the cooperation of the private sector, including resort owners and dive operators to assist local communities in managing MPAs.

## *3.7. Summary*

The three case studies illustrate many different strengths and weaknesses of linking marine conservation, tourism, and development in the Philippines. As a community-based initiative, Apo Island is arguably the most successful area because of strong community cohesion and that it was maintained for almost three decades. The Anilao study presents challenges in establishing MPAs that brings both benefits to both the marine environment and local communities. Over time, the local participation has declined and resource-use conflict is increasing and as a result the

community is deprived of the benefits of having a marine conservation initiative. Because of the remoteness of the area, Tubbataha is an exceptional case as there are only few competing resource users.

Coastal tourism needs continuous support from the government, NGOs and the private sectors in ways that does not overlook local communities. Improving the performance of natural resource systems requires an emphasis on institutions and property rights (Berkes & Folke, 1998; Plummer & Fitzgibbon, 2004). The common denominator among the MPAs in this study is that these sites need to clarify and establish commitment from stakeholders at all levels. Participation takes many forms and is not limited to people's contribution of time, labour, and money alone, but includes to some extent, the notion of influencing, sharing or redistributing power and control of resources, benefits, knowledge, and skills gained through community involvement in decision-making process. As long as the government sector or the elites have the means to decide the access and control of MPAs, it is only a temporary relief if communities are only made to feel that they are being empowered by means of *tokenism* – for example, fishers hired as fish wardens and as casual employees in resorts, tour guides, boat operators, among others.

In reality, encouraging participation means identifying the different stakeholders involved and clarifying the roles and responsibilities of these stakeholders. For participation to work, constituency building must be made for a long-term commitment to resource management. Coastal resource management should extend beyond reducing the conflict among stakeholders and promote the sustainability of the community and MPAs. Effective resource management works

best where there is a mechanism for re-circulating back into the communities some of the wealth generated by more intensive, superior management (Noble, 2000). Management approaches need to be adaptive and dynamic to enhance sustainability. Local resource management issues related to tourism and developments affecting the livelihood of local communities need to be addressed. Cognizant to an integrated management approach are mechanisms to scale up community-based initiatives. The ultimate question is that how can various stakeholders agree to achieve its goals towards sustainable management of MPAs? This calls for examining the distribution of power and wealth, the role of governments and local communities and class-based politics.

# CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

Experiences from the case studies suggest that for MPA management to complement tourism and development efforts, it should: (a) be integrated into broader development planning – either at the national, regional, provincial, or municipal level; (b) have the institutional, legal and financial support of government in addition to links with the private sector, and (c) have the support of local communities. While Choi and Sirakaya (2006:1278) have developed a model of sustainability indicators for community tourism, these authors acknowledge that the index used should be quantitatively or qualitatively manageable, and be easily implemented in a timely manner at the tourism site and the community level. The effective MPA management tools of Pomeroy and co-authors' (2004) are modified to accommodate the necessary flexibility for managing MPAs in tourism areas. (See *Table 4*.) For example, biological goals can be integrated into tourism development strategies by identifying and minimizing environmental and social repercussions, and by protecting the resources to make the destination attractive (Robinson, 1996; c.f., Aguiló and colleagues, 2005:227).

**Table 4: Socio-economic, Biological and Governance Indicators for MPAs in Tourism Areas**
**(Modified from: Pomeroy et al., 2004).**

| | |
|---|---|
| *Socio-Economic Indicators* | *Livelihood development* |
| | ▪ Food security and nutritional needs of small-scale fishers improved |
| | ▪ Supplementary income or income diversification to reduce pressure and dependency on fisheries |
| | ▪ Improved access to market and capital for local communities |
| | *Equity of benefits derived from the MPA* |
| | ▪ Equal allocation of access rights to coastal resources |
| | ▪ Monetary (including user-fees) and non-monetary benefits distributed equitably to and through coastal communities through various social services |
| | *Improved well-being of host community* |
| | ▪ Improved quality of life at the household level |
| | ▪ Other social services provided including education, health, and medical needs |
| | *Enhanced environmental awareness and knowledge* |
| | ▪ Involving the general public in biodiversity conservation to help mitigate rapid loss of biodiversity in the tourism area |
| | ▪ Building organizational capacities to manage the resources – including the park rangers, fish wardens, etc. |
| | ▪ Respect for local knowledge, traditions and cultural practices in the community |
| | ▪ Recreational opportunities for tourists and residents enhanced or maintained to appreciate coastal resources |
| | ▪ Educating local residents about their rights and promoting their representing their interest in decision making |
| Biological Indicators | Water quality |
| | Solid waste management and sanitation |
| | Minimized human impact from fishing and diving |
| | Biological and individual species protected |
| | Habitat protection |
| | Restoration of degraded areas |
| | Improved fish stocks |
| Governance Indicators | *Multi-sectoral participation in MPA management in tourism areas* |
| | ▪ Resolving and addressing resource use conflict among and within resource users |
| | ▪ Participation and influence of local communities in community affairs and coastal resources management |
| | ▪ Compliance and enforcement of coastal and fishery laws |
| | ▪ Involvement of local stakeholders from planning to management – including monitoring and evaluation and law enforcement |
| | ▪ Regular monitoring and evaluation and adaptation of management plan |
| | ▪ Building public and private sector partnerships |

**Table 4…continuation**

| | |
|---|---|
| Governance Indicators | *Financial sustainability of MPA* |
| | ▪ Transparency in appropriation of collected user-fee system |
| | ▪ Sufficient financial resources used efficiently and effectively |
| | *Appropriate legal instruments implemented* |
| | ▪ Well-defined MPA boundaries |
| | ▪ Surveillance, monitoring and evaluation of coastal areas |
| | ▪ Trained park rangers and fish wardens in law enforcement |

Developing mechanisms to sustain coastal tourism is essential. The indicators mentioned earlier are only a guide that may be applicable in certain biological, socio-economic and governance contexts. Each situation in which the national or local government lacks the resources to manage MPAs is different. For example, in some situations the area's geographical distance makes governance difficult, or the circumstances are too complex for centralized managers to have the knowledge and capacity to effectively manage resources. Other aspects to examine include capacity building by stakeholders, appropriate policies, public involvement, IEC among resource users, networking, and financial support and community development. Further, the long-term goals for managing sustainable tourism should include preserving the natural resources and the livelihood of local communities.

Coastal tourism can only be sustainable if local communities have control and share the resources equitably. A high level of institutional involvement and coordination among stakeholders is needed. Tourism and development are frequently biased towards earning a profit for the privileged sector and only emphasize the potential revenue that tourists, resort owners, and residents can generate from resource exploitation.

Tourism management of coastal areas should not only depend on economic sustainability. Decision making on environmental issues is equally important with its economic repercussions. Despite the improved efficiency of the national government, interventions by the national government cannot cope with the maximizing social costs of the bureaucracy. The local communities, through the MMC who autonomously managed the Apo Island MPA should be respected. Significantly, the bureaucratic process in fund management which does not only exist among MPAs areas, but also among terrestrial (forest) protected areas included under the NIPAS law.

Participation must relate to the people, problem and the program or initiative concerned, and it must be the people involved in the procedures who decide how a specific (MPA) framework should evolve (Treby & Clark, 2004). The success and failures of the different MPAs presented earlier show that coastal resource management should maintain an adaptive character in order to meet challenges or changes to the social and political environment. Participation would have no meaning if the people involved do not share understanding of its purpose and a belief in its merits in the broadest sense. The process of participation is itself an important as the outcome of the procedure. What development projects failed to do is to ensure the active participation of resource users and giving them the full potential to manage the resources.

At the community level, a mutual correlation between tourism and development should be developed. Originally managed by local communities with the technical assistance of the scientists, the Apo Island experience is a useful case study

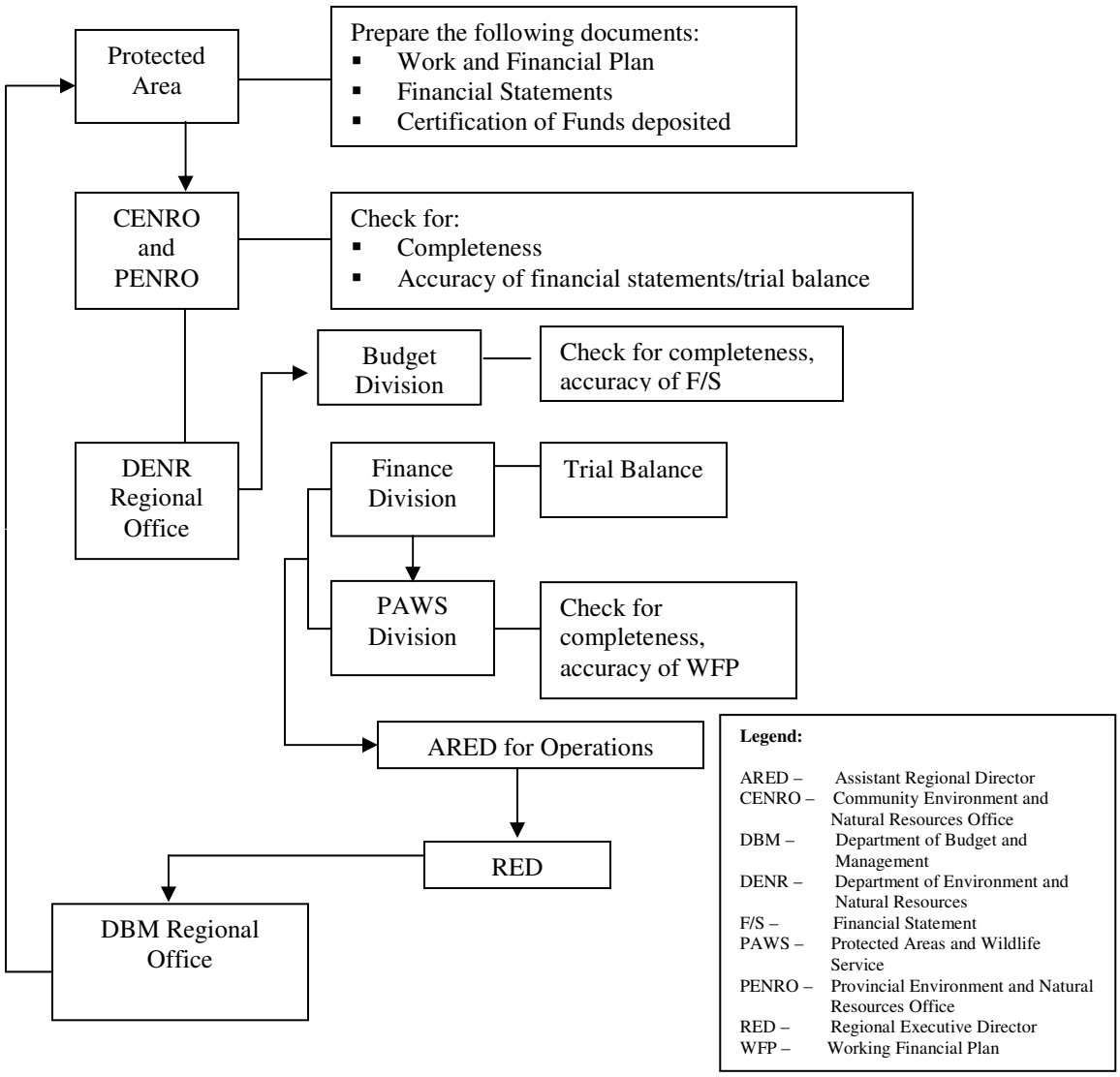
for coastal management practitioners planning for coastal tourism that considers not only the socio-cultural, economic and ecological impacts of tourism, but also the institutional conflicts that may arise in developing a tourist area. However, future MPA models must consider that Apo Island is based on a small, relatively isolated island with lesser stakeholder groups involved.

In terms of ecological management of MPAs, the legislation prescribes at least fifteen percent of the area should be protected either by a barangay or municipality (Aliño and co-authors, 2004:222). The management and sustainability of MPAs depends on the level of participation of stakeholders in planning and implementation while providing enabling regulations and ensuring socio-economic benefits derive from their active participation.

At the policy level, for example, Rosales (2003:45-46) recognizes that one possible solution is for PAMB and national government agencies is to come up with tentative agreements on how to delineate roles and responsibilities for each MPA. The author proposes an administrative flowchart for transferring IPAF funds to effectively and efficiently deliver services to protected areas. (See *Figure 9*.) While it may be difficult to come up with specific agreements at the national level, particularly the bureaucracy being experienced by Apo Island, arranging institutional mechanisms may depend on the various level of organization of the PAMB. Further, management of Apo Island MPA may come up with its own set of agreements, delineating each stakeholder's role for all resources found within their area. For instance, in some areas where the LGU has a strong presence, and is very active in protection activities, the municipal mayor can be given a co-chairperson position in the PAMB.

A broad set of guidelines can be issued by the national government agencies involved, which may be coordinated among themselves. In the same way, local initiatives require active collaboration with the government in enforcing user rights. When user rights are clearly specified, legitimate, and enforced, there is much greater chance that the intervention will be maintained (Katon and colleagues, 1999:793). Despite impediments in MPA management in Apo Island, the community-based approach in the management of resources is effective due to the resiliency of local communities and their sense of ownership over the natural resources.

**Figure 9: Proposed administrative flowchart of IPAF process (Source: Rosales, 2003:45).**




Management of MPAs is based on all stakeholders sharing responsibilities. It must fit within the local context to guarantee stronger support at the local political level. Though NIPAS addresses various protected area management issues, it cannot do much to implement policies, plans and programs on-the-ground without the active

support of the local government and communities. While problems in MPA management in tourism areas range from inadequate funds, political obstacles and inadequate social understanding, these problems should incorporate conservation strategies appropriate to socio-cultural practices. There is a need for a strategy to create livelihood opportunities that is compatible with conservation. As both MPAs managed under the national government, both Apo Island and Tubbataha Reef, needs to ensure community involvement and support of the other sectors, the local government and the PAMB (or TPAMB, for the case of Tubbataha) in establishing institutional arrangements necessary to foster cooperation.

Coastal tourism in the context of working with local residents is like any other community development initiative involving any kind of change. For a change process to be sustainable, the local community must be involved. In order to achieve community participation, a commitment among stakeholders towards empowerment, institution building and strengthening social relations must be ensured.

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# Appendix

Administrative Steps in Processing of the Integrated Protected Area Fund (IPAF)[14]

*Step 1:* The PAMB issues a resolution requesting that their Integrated Protected Area Fund (IPAF) funds be released based on an attached Work and Financial Plan (WFP) approved by its members. Along with the WFP are the other budgetary statements as required by DBM and DENR.

*Step 2:* The documents are submitted first to the respective Community Environment and Natural Resources Officer (CENRO), then to the Provincial Environment and Natural Resources Officer (PENRO) concerned.

*Step 3:* Upon checking whether the WFP is in line with what was agreed upon, and upon checking the budgetary statements and reconciling it with the province's total budgetary statements, the documents are submitted to the DENR Regional Office.

*Step 4:* Within the DENR regional office, the documents pass several offices. First, they go to the Protected Areas and Wildlife Service (PAWS) Division, which checks the WFP's technical aspects and sees whether they are within the priorities and plans for the region. They also go to the budget and accounting division, which reconciles the figures with the regional budget figures. Upon recommendation of the respective division chiefs, the documents are submitted to the assistant regional director, who then recommends endorsement by the Regional Executive Director (RED). The RED then endorses the request to the Protected Areas and Wildlife Bureau (PAWB) of the DENR in Manila.

*Step 5:* At the PAWB, the request goes through two divisions: the Biodiversity Division and the Administrative Division. Both check for the completeness of the documents. Upon approval of both division chiefs, the request is endorsed to the assistant director of PAWB, who recommends the endorsement of the director to the DENR central office.

*Step 6:* When it reaches the DENR Central Office, the request is processed by two more offices. First, it goes through the Financial and Management Service Bureau, which checks whether the attachments to the budget request are complete or not. It then forwards the request to the Office of the Assistant Secretary (Asec) for Operations, who either signs it him/herself or forwards it to the Head Executive Assistant (HEA) of the department secretary (Sec), for the latter's signature. Upon signing by either the Asec, the HEA or the Sec., the documents get endorsed to the DBM.

[14] Based from an interview by Rosales (2003:37).

*Step 7:* At the DBM, the documents are processed by the division handling DENR requests. An analyst checks the financial attachments of the request, and verifies whether the amounts stated are accurate. The division chief then endorses the request to the director, who then recommends approval by the secretary, through the assistant secretary. After approval, the secretary issues the Notice of Cash Allocation (NCA), and the Special Allotment Release Order (SARO). The NCA is issued as proof that the cash has indeed been deposited in the bank account of the agency concerned, while the SARO is the authority of the agency to withdraw the cash for whatever purpose is stated in the WFP. Only then is the process complete.