ENABLING SUSTAINABLE MARINE TOURISM IN ISLAND COMMUNITIES: THE CASE OF GILUTUNGAN MARINE SANCTUARY

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ABSTRACT

This paper focuses on the enabling conditions to achieve sustainable tourism within an island ecosystem in the Philippines. It explores how a marine reserve, in the context of sustainable tourism, is being managed and governed at the local level. The study site is the Gilutungan Marine Sanctuary (GMS), in Cordova, Cebu, Philippines, one of the preferred diving sites in the country, after having its damaged coral reefs restored to health by the community. The study argues that community-based tourism can be a tool in the management of Marine Protected Areas. The paper discusses the strategies that have been initiated by the local government to pursue a self-sufficient and sustainable marine reserve. It also attempts to propose ways to address the issues and challenges in marine conservation, such as provision of local livelihoods, community empowerment, and benefit sharing. Certain conditions have to be in place to ensure the sustainability of marine tourism. This study shows that mass tourism in GMS is becoming a serious problem. Coral reef check and visitor impact monitoring should also be strengthened to assess the damage of tourism and appropriate action taken immediately. The enabling conditions necessary to achieve sustainability while conserving marine life at the GMS are: strict observance of Laws and regulations; greening of Local Governance; viable Management Plan; financial mechanism through the Environmental User Fee (EUF) system; benefit sharing of environmental fees; collaboration and public-private partnerships; community involvement and livelihoods; and, promoting responsibility of tourists and the tourism industry. Recommendations, applicable to the Philippines and similar sites elsewhere, are also presented to help ensure sustainable tourism in a marine sanctuary. The lessons learned from this study can provide valuable management ideas and impetus for healthy governance of marine reserves in the Philippines and other sites overseas that have similar situation and concerns.

Keywords: *sustainability, marine protected areas, eco-tourism development, marine sanctuary, coastal resources, buffer zone*

1. INTRODUCTION

Marine reserves can enhance biodiversity, fish production, tourist experience, and local livelihoods (e.g., Alcala et al. 2008; Uyarra et al. 2009, White et al. 2006). If not properly managed, marine tourism can have irreversible impact on the quality and quantity of the natural resources that visitors like to see and enjoy. For example, it was predicted that the visitation rate

at the Great Barrier Reef (Australia) would decline by as much as 80% if its marine diversity was compromised.

At the global level, the Convention on Biological Diversity has put forward the '2011-2020 Strategic Plan for Biodiversity'; it is comprised of a set of goals and targets (collectively known as the Aichi Biodiversity Targets) to save biodiversity and enhance its benefits to humanity (CBD, 2012). In the context of tourism, the Plan aims to conserve biodiversity at natural destinations while enriching tourist experience and sustaining the tourism industry. The *Future We Want* of the Rio+20 UN Conference on Sustainable Development states that "well-designed and managed tourism can make a significant contribution to sustainable development... and has close linkages to other sectors and can create decent jobs and generate trade opportunities" (United Nations, 2012, p. 25). The industry together with the tourists and relevant sectors of society is urged to be more socially responsible and environmentally accountable for its actions by maintaining the cultural and environmental integrity of nature-based tourist attractions, especially those in protected areas (Catibog-Sinha & Plantilla, 2012).

2 LITERATURE REVIEW

2.1 Marine Protected Areas

The International Union for the Conservation of Nature (IUCN) defines Marine Protected Areas (henceforth MPA) as "any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment." In this paper the term 'marine reserve' is used interchangeably with 'Marine Protected Area.'

All marine resources within an area up to 15 km from the shoreline of any particular municipal jurisdiction in the Philippines are now managed pursuant to the decentralization of political governance. Currently, more than 80% of all MPAs in the country are established and managed by Local Government Units (LGUs).

The Philippines has been establishing marine reserves since the 1970s, now reaching more than 1,000 (PhilReefs, 2008 in Maypa et al., 2012), and ranging in size from less than 5 hectares to as big as the transnational marine protected area between the Philippines and Malaysia (242,967 ha). Of the 453 MPAs assessed in the Philippines, about 94% were established by the local government. However, only 10-20% of these reserves are functional or effective as conservation areas (Christie et al., 2002; Maypa et al., 2012). In another report, 33% (187 out of 564) of the reserves in the Visayas Region are considered 'functional' (Alcala et al., 2008). On the other hand, Maypa et al. (2012) report that half of the MPAs in Central Visayas, where GMS is located, have an overall management performance rating of 'sustained' and 'very good.' The failures of some MPAs in achieving their conservation objectives are attributed to weak governance and enforcement, poverty, economic and political uncertainties, and inadequate funding and resources to sustain management activities especially after external funding support is withdrawn.

Marine reserves are established in the Philippines primarily to protect key sites from overfishing and destructive harvesting (e.g. blast fishing, cyanide poisoning). Because reserves have rich

marine life, they are very much in demand for recreational diving and snorkeling. They can be managed for tourism and sustainable fishing using a zonation scheme. The core zone or 'no-take zone, which contains the highest marine diversity, is usually demarcated using buoys from the buffer zone where recreational activities are permitted. This zoning scheme was found to be effective in promoting the so-called 'spill-over effect' where marine organisms are allowed to reproduce and grow inside the core zone with its surplus population spilling over into the buffer zone ('take zone') (Russ & Alcala, 2011; White et al., 2006).

2.2 Local Community Involvement and Governance

Community involvement can facilitate social cohesion, which could ultimately lead to self-sufficiency and self-determination. Community-based governance has been proven to be crucial to the success of MPA management in the Philippines (Alcala & Russ, 2006; Christie et al., 2002).

Local communities can become good allies in conservation and sustainable tourism if they benefit directly from tourism. Success in the management of marine protected areas is often attributed to the community's collective effort, which is driven by the common values that people hold in relation to the use of natural resources. Sustaining collective initiatives, however, requires a high level of institutional support wherein government bodies efficiently enforce appropriate laws and provide adequate services to enhance conservation and livelihoods (Beger et al., 2005; Catibog-Sinha, 2012b).

Certain conditions have to be in place to ensure the healthy governance and sustainability of marine tourism. Local governance, an important ingredient in sustaining tourism, consists of three key elements, namely (a) transparent and democratic political environment that facilitates community representation and participation, (b) coherent regulatory instruments, and (c) collaborative partnerships between the public and private sectors as well as the civil society (Wesley & Pforr, 2010). Indeed, the sustainability of both tourism and conservation is linked to the participation and involvement of local residents who are dependent on natural resources for livelihoods and subsistence (Catibog-Sinha, 2012). Through collaborative partnerships, marine reserves can support local livelihoods such as fisheries and tourism. Sound management of reserves, based on scientific and local knowledge complemented by timely and appropriate institutional support as well as policy and economic incentives, is also crucial (Weeks et al., 2009).

3. STUDY AREA DESCRIPTION

The Philippines is an archipelago of more than 7,000 islands that dot the western edge of the Pacific Ocean. The fringing coral reefs cover about 346,000 hectares of the coastal area, representing approximately 10% of the total territory of the country. About 60% of the coastal and island inhabitants in the Philippines depend on marine resources for subsistence and livelihoods (Aliño et al., 2002).

Gilutongan Marine Sanctuary (henceforth GMS) is a 14.89-ha marine reserve along the western edge of Gilutongan Island in the island of Cebu within the Region of Central Visayas. It is

accessible by motor boat, about 30-40 minutes from the nearest port. GMS, which is under the administrative jurisdiction of the Municipality of Cordova, was legally established in 1999, after about a decade of several public consultations and government resolutions. GMS was initially established in 1991 as a 10-ha fish sanctuary; eight years later it was expanded to its present area including the establishment of a 20-meter buffer zone where tourism is permitted.

GMS is managed through a zoning system that delineates the protected core zone from the buffer zone (MCC, 2011). It is one of the 120+ marine reserves established in Cebu and one of the 50 sites which is considered 'functional' and with fair to medium levels of live hard cover and fish biomass (Acala et al., 2008).

4. METHODS

Several field visits of the study area were conducted in 2011-2012. Foreign and domestic visitors, sanctuary guards, and community members, who were willing to participate in the study, were interviewed. Attending one of the meetings of the GMS Management Board was done to get a broader insight into the current issues affecting the study area. Follow-up and in-depth meetings with key government officials of the Municipality of Cordova and some members of the GMS Management Board were held in several occasions. A comprehensive review of relevant literature was also conducted.

5. RESULTS AND DISCUSSION

5.1 Socio-Demographic Profile of Residents

Gilutongan Island is considered one of the poorest *barangays* (local village) in the country (National Statistics Coordination Board, 2012). Gilutongan Island is inhabited by about 1,300 residents in 251 households. About 80% of the residents do not own the land where they live, and the majority has low educational attainment. Their main occupations include small-scale fishing and seaweed farming, vending, running convenience (*sari-sari*) store, gleaning and gathering marine products (e.g. seashells, sea cucumber, collectors urchins). Marine tourism is considered one of the means to alleviate poverty.

5.2 Marine Biodiversity

GMS is endowed with rich fringing reefs. The fish biomass/density is considered high (38,000 per ha). The seagrass beds, which are also the habitat of other marine life such as small cowries (*Cyprea*), are extensive (MCC, 2011; Sotto et al., 2001).

GMS has a long history of over-fishing and dynamic fishing that resulted in coral reef damage and decline in fish diversity and abundance. It takes at least 3-5 years and up to several decades before coral reef ecosystems can recover and show biodiversity improvements (Anticamara et al., 2010; Russ & Alcala, 2010). Some 5-10 years since GMS was established as a marine reserve, the coral reef has shown some recovery. For instance, the 2006 survey (Raymundo et al., 2007) revealed that the condition of live hard coral is 'good' inside and fair' outside the Sanctuary's boundary. The densities of all fish species, including the target species (e.g.

groupers, snappers, jacks), both inside and outside the Sanctuary, have also increased.

5.3 Tourism Trend

Table 1 shows the number of visitors recorded during the period 2009-2012. The average volume of tourists was 52,000 - 56,000 per year or an overall monthly average of 4,572. During peak months the density can be very high, such as in March 2009 with 6,123 visitors. During low peak season (e.g. September - December 2010), the average number was 3,430 visitors. The marine warden and resident (T. Menguito, personal communication 5 July 2012) said that during high peak season, about 10-20 boats (with an average holding capacity of 7-10 persons per boat) are anchored on the dive site at a time. Nearly 26,000 dives were recorded in 2003 (Uy et al., 2005), which was five times the prescribed yearly carrying capacity of GMS. The demand for diving and snorkelling continues to increase.

Table 1. Number of visitors at GMS, 2009-2012)*

	Yearly average	Monthly average**
Total visitors	52,000-57,000	4,000-4,600
Number of snorkelers	42,000- 47,000	3,500-4,000
Number of divers	700-1200	58-100
Number of divers with video camera	600-670	50-56

Source: Planning Unit, Municipality of Cordova, Cebu Province, 2012

* Computed from official reports with complete data in 2009-2010, and partial data in 2011 and 2012.

** Average monthly visitation is not consistent throughout the year.

The tourism market at GMS is dominated by international visitors (81%). The favorable foreign exchange rate, accessibility, and premium natural attractions have pulled many Southeast Asian tourists to the country. Among the visitors recorded, the Japanese followed by Koreans were the most numerous (Fig. 1).

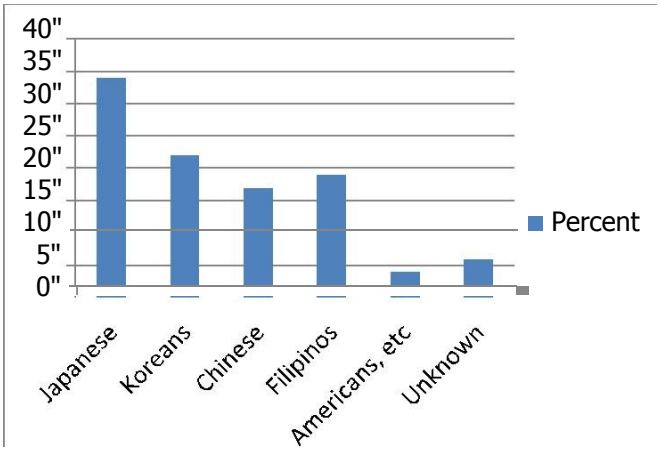

Figure 1. Distribution of foreign market at GMS, 2009-20012. (Computed from raw data from the Planning Unit, Municipality of Cordova, Cebu Province, 2012).

5.4 Tourism Income

The main sources of tourism income are the diving and snorkelling fees, which are usually paid when tourists make their bookings with accredited/registered tour operators and dive shops. All monetary collections from the recreational use of GMS are managed by the Local Government Unit through an Environmental User Fee (EUF) system established to finance the protection and management of GMS.

Table 2 shows the reported gross income from user fee tickets issued from 2000 to 2012 (MCC, 2011). The yearly average income is about Php 2.4 million (USD 50,000), ranging from Php 300,000+ (USD 6,000) to Php 5.9 million (USD 140,000) in gross total. The highest collection was reported in 2011, which indicates higher visitation and/or better collection and/or reporting system of entrance fees during this period. The teething problem in implementing the EUF system is reflected in the low income recorded in 1999 (the year the Municipal Resolution creating the EUF was adopted). It was estimated by White et al. (2000 in Ross et al. 2000) that in addition to the tourism income and 'off-site' and indirect benefits, the potential annual economic net revenue of GMS could be as much as US$ 200,000.

In the Philippines, many divers are willing to pay more for a diving experience in marine reserves. For example, Arin (1997 in White et al., 2000a, 2000b) reports that scuba divers in GMS are willing to pay an entrance fee of USD 5.00 per person and an additional donation of USD 5.00 for buoy maintenance. An increase of the user fee at GMS in 2008 had not affected the visitation rates of tourists thereafter (T. Menguito, personal communication, 5 July 2012). The same observation was reported by Thur (2010) who states that nature-based tourists who are supportive of environment-friendly tourism in Bonaire National Marine Park (Netherlands, Antilles) are willing to pay more for a memorable tourist experience.

Table 2. Gross income reported from 2000-2012.

Year	Gross Income in Pesos	Gross income in USD*
2000	316,850	7,582
2001	866,280	20,723
2002	1, 767,900	42,305
2003	1,997,325	47,796
2004	2,107,990	50,444
2005	2,744,305	65,671
2006	3,069,150	73,444
2007	3,834,767	91,765
2008	3,125,000	74,780
2009	3,645,866	87,245
2010	1,560,467	37,342
2011	5,874,869	140, 584
Total	29,142, 869	599,097
Ave yearly	Php 2,428,572	US$ 49,925

Source: MCC, 2011
*Foreign exchange rate as of 2012

5.5 Recreational Activities – Snorkelling and Diving

Snorkelling (80%) is the most popular activity at GMS. Scuba diving and underwater photography represent, respectively, 19% and 1% of the visitors during this period. The divers and snorkelers are day-time visitors, with an average of 2-3 hour stay. Regardless of the season, the percent distribution of the recreational users has been more or less consistent from 2009 to 2012. Visitors on packaged tour usually culminate their recreational activity with a sumptuous meal at *Payag* Seafood Restaurant, a privately owned establishment built along the shoreline facing the buffer zone/diving zone.

5.6 Tourism Impacts on Coral Reefs

Corals can be fragmented and/or pulverized by reckless diving, boat mooring, and other water-based recreational activities (e.g., surfing, sail boarding, jet skiing). The major impacts of diving/snorkelling at GMS include fin contact on corals, disturbance of sediments, and stony coral breakage (Uy et al., 2005). Unregulated scuba diving and snorkelling in many other reefs have shattered coral colonies (specially branching corals) leading to the loss of hard coral cover, high mortality of associated marine organisms, and increase in predation and algal growth over reef formations (Worachananant et al., 2008). Even the mere presence of snorkelers and scuba divers was found to reduce fish densities in Andaman Sea, Thailand (Dearden et al., 2010). In Palua, divers with cameras and gloves, were reported to exhibit much more damaging impacts on corals (Poonian et al., 2010). Aside from tourism, the main causes of coral reef degradation in the Philippines are sedimentation, pollution, over-fishing, coral bleaching, and mining (e.g., Nañola et al., 2011; Melbourne-Thomas et al., 2010).

The popularity of GMS as a premium dive site may be considered "both a blessing and a curse" because while tourism income is substantial, the risk to the ecological integrity of coral reefs could be massive and irreversible (J. Baguio, personal communication, 4 July 2012). In addition, several tour operators in the country do not regulate recreational diving; others even construct tourism facilities very close to the coast despite the mandatory required easement zone of 20 meters from the shoreline (DAO No. 29/1997).

5.7 Enabling Conditions for Sustainability

The conditions to achieve sustainability are achievable depending on the ability of the government and local community to identify opportunities, prioritize actions, develop and implement legislative measures, and monitor management effectiveness. The following are the enabling conditions that support the initiatives of GMS to achieve sustainability. However, strong political will and external support are essential to institutionalize better and consistent sustainability measures. Judicious implementation and monitoring are also essential.

Enabling condition 1: Laws and regulations

The management and conservation of coral reefs and coastal areas in the Philippines are provided for in the Fisheries Code (RA 8550/1998), National Integrated Protected Area System (NIPAS) Act (RA 7586/1992), and Local Government Code (RA 7160/1991). Despite the enactment of these legislations, some coral reefs in the country are still being damaged by exploitative human activities, notably dynamic fishing and poisoning which are now considered

illegal.

The establishment of MPAs at the local level is sanctioned by the Local Government Code (RA 7190, 1991). One significant community-based initiative at GMS, which aims to balance local economy and coastal protection and sustainability, is the Integrated Coastal Resource Management Program. The national program focuses on the proper use of coastal resources for local livelihoods, fisheries, and tourism through local governance, multi-sectoral partnerships, community involvement, and law enforcement (Lucas & Kirit, 2009; Maliao, et al., 2009; Samoilys et al., 2007 ; White, et al., 2006).

Local groups, with the financial and administrative support of LGUs and other stakeholders, can work together to enforce coastal resource and tourism regulations at the community level. At GMS, incentives to marine watch groups/wardens (*bantay dagat*) volunteers may include the provision of patrol boats and daily allowances.

Enabling condition 2: Local Governance
Addressing tourism issues involves a better understanding of power distribution and power relations (Hall, 2011). Patterned after the structure of the Protected Area Management Board (PAMB) and as stipulated in the NIPAS Act and the Local Government Code, the Municipal Government of Cordova established the GMS Management Board (GMSMB). Led by the Municipal Mayor, the Board is represented by relevant government units and non-government organizations.

The main duty of GMSMB is to regulate and manage GMS, which includes imposing rules on the level and nature of recreational activities including penalties for violations (i.e., spear fishing, collection, jetskiing); issuing accreditation and registration permits to tour operators, dive shop owners, boat owners, etc.; collecting user fees; and other relevant actions as required (Section 6, Ordinance No. 004-2008). As an incentive, the Board members may receive honoraria/allowances whenever possible subject to the availability of funds. Nonetheless, the success of local governance will all depend on honesty, transparency, and political will of the Board members as well as other relevant decision makers and stakeholders.

Enabling condition 3: GMS Management Plan
Through the endorsement of GMSMB, the GMS Management Plan (2012-2016) was adopted by virtue of a Municipal Resolution (No. 312-12-12). The main goal of the Plan is to protect "the marine ecosystem while promoting ecological tourism as a sustainable way of development" (MCC, 2011). The Plan highlights the following issues that need immediate attention: (a) illegal entry and use of the core zone, (b) coral reef destruction by the crown-of-thorns starfish (*Acanthaster planci*), (c) coral bleaching, (d) irreversible diving and boat anchoring, (e) tourist influx and over-crowding, (f) solid waste washed from mainland Cebu, (g) odor pollution from untreated human waste from island residents, and (h) unregulated fish feeding.

The successful implementation of the GMS Management Plan will depend partly on the availability of funds, thus, the local government should ensure the timely release of the national/provincial budget allocated for the marine park. In addition, the income from tourism should be ear-marked only for marine protected area management. External funding from donors and grants should also be sought. Transparency in all transactions, however, is crucial.

Enabling condition 4: Financial mechanism through the Environmental User Fee (EUF) system
The main tenet of the EUF system is to generate money to be used exclusively for the management, maintenance, and protection of marine reserves. Generating conservation funds through the EUF system is becoming a common and practical strategy in the Philippines (Casiwan-Launio et al., 2011; Catibog-Sinha, 2011). For example, it was estimated that an annual collection of US$ 300,000 could be generated from entrance fees and donations in a marine reserve in Mabini, Batangas (White et al., 2000a).

The establishment of EUF system at GMS is stipulated in the local ordinance (Municipal Ordinance No. 004-2008). The EUF system spells out the fee schedule, revenue sharing scheme, and creation of a Board to decide on budget disbursements. However, maintaining the social/moral integrity in the collection and disbursement of funds is necessary. After all, tourists feel great satisfaction knowing that the conservation fees that they have paid are being used judiciously for conservation and maintenance of the tourist destinations (Catibog-Sinha, 2012c).

Enabling condition 5: Benefit sharing of environmental fees
The United Nations Environment Programme (UNEP 2011, p.13) in its report *Towards a Green Economy* states that the benefits derived from the use of natural resources should be shared with the local communities as a means of alleviating poverty and better conservation of the 'ecological commons.' In the context of tourism, market-based benefits when not shared with the local community can trigger further exploitation of the natural resources upon which they depend for survival.

At GMS, a municipal ordinance (No. 004-008) was issued to spell out the benefit-sharing scheme of EUF. The distribution scheme is as follows: 60% - Municipality; 30% - Barangay Gilutongan; 5% - Livelihood projects of Accredited Umbrella Fisherfolks Organization; and 5% - United Municipal Employees of Cordova (UMEC). The Planning Unit of the LGU (L. Ator, personal communication, 6 July 2012), states that the Municipality's share is budgeted for major expenses such as the construction and maintenance of the guardhouse/Visitor Center, payment of salaries, reef monitoring, and purchase of boats. The Barangay's share is used to support livelihood programs, honoraria, garbage collection and law enforcement. UMEC assists in local marketing and promotion.

Because the official financial acquittal reports were not available during the time of study, no analysis was made on the matter. The estimated management cost of GMS could be as much as US$22,000 per year (White et al, 2000 in Ross et al., 2000). Thus, it can be surmised that GMS can be financially self-sufficient. Nonetheless, a less bureaucratic process of facilitating the fair and equitable distribution and access of funds to improve sanctuary management and alleviate poverty of local residents should be taken into account in the implementation of the benefit-sharing scheme.

Enabling condition 6: Collaboration and public-private partnerships
Productive and harmonious collaboration is an effective governance strategy for marine protected areas in the Philippines (Horigue et al., 2012). The management of small marine reserves in the country is usually a joint effort of the local communities and the local/national governments (e.g. Christie et al., 2002; Sotto et al. 2001). Establishing public-private partnerships is also considered a 'green' strategy for a more effective way of sharing and

spreading the costs and risks of tourism development (UNEP, 2011). A private-led entrepreneurial scheme set up in Indonesia, for example, was found to be effective in sustaining tourism and conservation of marine protected areas (Bottema & Bush, 2012).

Public-private entrepreneurial partnerships aimed at balancing marine-based tourism and conservation in small protected areas seem suitable in cases where the government is unable to effectively protect and manage these areas (deGroot & Bush, 2010). At GMS, a public-private partnership between the Municipality of Codova and a tourism entrepreneur (Hei Yang Sports Management Corporation) was initiated in 2011. In accordance with the usual public bidding process and in consultation with the GMSMB, a Memorandum of Agreement (MOA) on joint management was signed (Table 3).

As part of the public-private partnership agreement, the tour operator should manage and protect the buffer zone of GMS under a 3-year lease contract, which may be renewed every other 3 years. They are also responsible for marketing and promoting GMS as a marine-based tourist destination. The lease contract amounts to Php 6 million per year (USD 145,000) less all the expenses incurred by the tour operator in managing and protecting the sanctuary. The MOA also stipulates that the local government shall not compete with the private partner on matters pertaining to tourism marketing and promotion. The GMS Management Board is the ultimate decision-making entity on issues and concerns raised by either or both Parties. However, an oversight and monitoring mechanism should be enforced to ensure that the agreements are sustained and consistent with the objectives of marine protected area management and sustainable tourism.

Table 3. The MOA conditions covering the period October 2011- October 2014.

Responsibility	Brief description
Management of buffer zone ('recreational zone')	This is delegated to the private partner; it includes the control and regulation of visitor use, collection of fees, hiring of guards, enforcement of zone protection, construction and maintenance of tourism facilities, tourism marketing and promotion.
Lease/rental payment	Php 400,000 per month payable to the Local Government Treasury; it may be increased whenever necessary and appropriate.
Environmental regulations for proposed tourism projects	Strict compliance with the Philippine EIA regulations; a refundable guarantee fund (called the Environmental Guarantee Fund) of not less than 1.25% of the contract amount (i.e. Php 225,000) shall be deposited by the proponent to the Local Government Treasury; it will remain as a trust and may be refunded at the end of the contract.
Progress Report	Submission of monthly reports (financial and activity) to the LGU.
Penalty	For non-compliance with the provisions of the MOA; it may include termination of the contract and, if applicable, a non-refund of the Environmental Guarantee Fund.

Enabling condition 7: Community involvement and livelihoods

The involvement of local communities, especially those who are directly affected by tourism development, is crucial in sustaining tourism through the enhancement of the local economy and alleviation of poverty (UNEP, 2011). Although support for local livelihoods such as soft loan

scheme for seagrass farming and small-scale fisheries has been initiated, it needs more equitable and better implementation and monitoring. When local concerns are collectively addressed, community satisfaction and 'sense of community' are established, which eventually result in greater motivation to cooperate with the industry. As a result, tourism is likely to become more successful and sustainable.

Conflicts in the management of MPAs may also arise, often as a result of unclear or inadequate understanding of the costs and benefits associated with resource use (Fabinyi, 2010). The study of Pietri et al. (2009) reveals that the presence of local leadership in marine conservation as well as community environmental education can promote effective marine protected area management in the Philippines.

Enabling condition 8: Responsibility of tourists and tourism industry
Good practice and code of conduct in tourism can be facilitated through appropriate and well-planned and designed interpretation program aimed at increasing conservation awareness and cognitive knowledge and appreciation of the reefs (Coghlan et al., 2011; Thomassin et al., 2010). Conservation awareness program that focuses on the diving impacts on reefs and pointing out specific examples of such damages should be required as part of the briefing kit (Camp & Fraser, 2012).

More specialised divers, compared with amateurs, tend to have a stronger sense of obligation to conserve and practice good conduct in marine tourism. Many of these divers demand conservation education when negative impacts of diving on reefs become apparent (Anderson & Loomis, 2012). The precautionary measures that GMS management may adopt should focus on regulated access to the buffer zone. The study of Sorice et al. (2007) reveals that scuba divers in marine protected areas do not mind reducing their level of recreational use for as long as restrictions and regulations would result in better management and richer marine life.

6. CONCLUSION AND RECOMMENDATIONS

Despite the remarkable initiatives of the LGU in promoting an ecologically sound and socially responsible marine tourist at GMS, some other issues and concerns have to be addressed. The results of this study may benefit other marine reserves in the Philippines as well as those overseas with similar situations.

a. This study shows that mass tourism in GMS is becoming a serious problem. Coral reef check and visitor impact monitoring should be strengthened to assess damage and to take appropriate actions immediately.

b. Although some members of the local community have benefited from tourism, majority of the residents of Gilutongan Island remain impoverished and unemployed. Government support to initiate backyard or cottage industries (e.g. souvenir-making using local materials) should be integrated within the coastal resource management program.

c. A more democratic and transparent process in the use and allocation of the Environmental User Fee should be in place and consistent with the tenet of the EUF system.

d. Joint management underscores the value of community involvement and partnerships based on transparency and trust. It is crucial to determine how power/authority is shared and distributed to ensure social and economic equity among relevant stakeholders.

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