

# REVISITING TENSIONS AND SUCCESSES OF MARINE PROTECTED AREAS IN A VISAYAN MUNICIPALITY

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Evaluating the success of a marine protected area (MPA) does not end with its establishment. This has to be seen in terms of its management and is a result of tedious and tense technological and social processes, evident in the clash among four ‘communities’: the scientists associated with the academe, the authorities from government and non-government organizations, the advocates comprised of conservation groups and donors, and the resource users represented by the fishery and tourism sectors. The enforcement of MPAs, promoted by conservation science and legitimized by the state, to regulate tourism and prevent fishing activities in certain bodies of water can be biologically successful but socially a failure if discontent is harbored by the affected communities of resource users. In this article, contested issues expressed in spatial claims and counter-claims, the traditional views of open access versus conservation science, and tourism representations of marine spaces, are re-examined employing a historical approach based on my work with MPAs in Dauin, Negros Oriental in Central Visayas, Philippines since 10 years ago, to demonstrate the still unresolved issues at present regarding the appropriation of marine spaces and benefits that have to be realistically felt by all stakeholders. Among others, these issues center on the reasonableness of the privilege extended to paying recreational divers, the imposed amount of user fees, restrictions of fishing within the buffer zone, benefits to displaced fishers but who are non-members of fishers associations.

***Keywords:** Marine protected area, biological success, social failure, fishery and tourism, Visayan municipality*

## Introduction

With the growing popularity of MPAs as conservation tools and tourism attractions, there are diverse ‘communities’ converging now along coastal zones. These communities, which are not demarcated by geographic

boundaries as normally defined, have their own sets of norms or ways of behaving and relating with the environment that manifest conflicting agendas and rationalities (see also Gollin & Kho 2008). Such social distinctions reflect the complexity of stakeholders to the establishment and management of MPAs (Fabinyi 2008, Jentoft et al. 2011). They are comprised of the scientists from the academe engaged in the production of knowledge in nature conservation, the managers represented by government and non-government organizations who have the authority to regulate human behavior and activities relative to the environment, the advocates for a quality environment composed of conservation groups and donors, and the different resource users from the fishery and tourism sectors who are affected by the closure of a portion of marine space from extractive activities (Christie et al. 2003).

As a public space governed by certain environmental norms and conservation ethics, an MPA has become a site of the politics of representation, where different systems of values and spatial practices intersect. MPAs were conceived and designed as a tool for the conservation or protection of certain marine species (Koldewey et al. 2010) and their habitats (Hansen et al. 2011), for maintenance of ecological balance, and food security. They also include declared heritage sites by the United Nations Education, Science, and Cultural Office (UNESCO), exemplified by the Tubbataha Reef (Tongson & Cola 2007). As an outcome of protection, a successfully managed MPA has become attractive to coastal and marine tourism (Job & Paesler 2013), thereby providing additional or alternative livelihoods to host communities. Arguably, the provisioning and cultural services of an MPA as an ecosystem by itself has made it a valuable resource beyond its inherent worth as a conservation tool that enhances its regulating and supporting services (see MA 2005, Roncina et al. 2008).

But an MPA like any other interventions always brings changes to what has traditionally been the culture or ways of life of a host community when new uses of a commons, or the resources available to all supposedly for free, have been identified, with growing or brewing tension among various stakeholders due to what Alejo (2000:19) calls the “internal complexity of contextual actors” which makes “internal cohesion” difficult to achieve (Gollin & Kho 2008:10). The emergent social tensions result from “social differences and divisions” (Eder 2005:167), which have become more pronounced, even in rural settings, because of the coming in of new sets of actors that are interested with the same resource base. As already mentioned, these new actors include conservationists and those in the tourism business composed of resort and dive shop operators

and tourists with varying perceptions and competing claims over spatial resources. How these differences persist or are reconciled is a rich area for anthropological investigation with a framework of analysis that exposes how power among multiple stakeholders is diffused or restrained by the positions they assume in a particular social and political space and time (Arquiza 1996, Alejo 2000). Resurreccion (1998:115) writes that resource use is “a symbolic marker of identity”, bestowing on people “a sense of community that distinguishes them from others”. This is one sensitive matter that natural scientists often overlook as they enter and intervene in the affairs of the host community.

Informed by the foregoing context and theoretical considerations, this paper goes behind the successful establishment of MPAs by a local government unit (LGU) as an exercise of its legal mandate, to focus on the management issues that were sources of tension in efforts of protecting municipal waters over the years (*see also* Fabinyi 2008 for a similar case in Palawan).

### **The case study and fieldwork**

Dauin, Negros Oriental in central Philippines is a fourth class municipality, with a land area of 14,432 hectares. It is located about 15 kilometers south of Dumaguete, the capital city of the province. Dauin had a population of 22,698 (RHU 2004) which increased to 25,239 in the most recent official census (NSO 2010), distributed in 23 barangays. Eight of these are coastal barangays, within a coastline of only 10 kilometers, and one is an island barangay. Dauin has become a coastal and dive tourism hub in the province. A significant increase in the population is expected as more businesses are established and more expatriates are showing interest to settle in this once sleepy municipality.

Excluding Apo Island<sup>1</sup>, currently nine MPAs are found off the seven of the eight coastal barangays of Dauin which were established during different years and under different mayors. The first three MPAs were established between 1995 and 2001 under three different mayors while the

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<sup>1</sup>The MPA located off Apo Island, a barangay of Dauin, is not only the first in the municipality but is also considered to be the first successful community-based coastal resource management project in the Philippines. This was initiated by Silliman University in 1985 in collaboration with the municipal government of Dauin and the barangay government of Apo Island (Ordinance No. 1, s. 1986). The management of Apo Island MPA was later handed to the Protected Area Management Board (PAMB) pursuant to the National Integrated Protected Area System (NIPAS) Act of 1992 (Republic Act 7586, see Hind et al. 2010).

other six MPAs were established between 2002 and 2005 under one mayor. For this program the Dauin LGU was a recipient of the *Galing Pook* Award in 2005 given by the Department of Interior and Local Government (DILG) (Oracion 2013).

Comparing the successful establishment of MPAs during different political periods supports the observation that one particular mayor was more zealous in implementing the LGU mandate that 15 percent of the municipal waters can be declared into MPAs (see also Pollnac & Seara 2011). This is also an exercise of the mandate in the Local Government Code of 2001 to regulate the use of the LGU's coastal and marine resources and address their deteriorating conditions due to the growing populations in coastal communities of the municipality. The sizes of the MPAs in Dauin, which are now named after fish species which serve as tourist attractions, range from two to nine hectares and cover a total of about 52 hectares (Table 1).

**Table 1.** Marine Protected Areas in Barangays of Dauin

Barangays	Names of Marine Protected Areas	Estimated Size (in hectares)	Year Enforced*
Masaplod Norte	Stingray/Spotted Whale MPA	9.00	1997
Maayongtubig	Nemo/Clown Fish MPA	3.00	2000
	Mandarin MPA	4.22	2000
Poblacion 1	Sea Turtle MPA	9.00	2001
Masaplod Sur	Yellow Snapper MPA	6.00	2002
Lipayo	Lion Fish MPA	2.00	2004
	Frog Fish MPA	8.00	2004
Bulak	Barracuda MPA	7.42	2004
Poblacion 2	Ghost Pipe and Sea Horse MPA	2.85	2005

\*The years refer to when the Municipal Ordinances were passed to legalize enforcement but some MPAs were actually established earlier. For example, the MPAs of Masaplod Norte and Poblacion District 1 were established in 1995 and 1996, respectively.

Arguably, the limited stretch of the coastline had initially constrained the livelihoods of affected households at the early years of its Coastal Resource Management (CRM) program since fishing is restricted inside

the MPAs while yet waiting for spillover effects. I conducted initial fieldwork in Dauin from 2004 to 2005 for my dissertation which coincided with the incumbency of a mayor who became known for his strict enforcement of the CRM ordinance (Oracion 2006a, 2006b). He was strongly inspired to establish several MPAs which generated the ire of the drastically affected fishers and those in the dive tourism business, but he drew praise from members and officials of fishers' associations because of his strong will to enforce what the CRM ordinance authorized. I conducted sample surveys of resort and dive shop operators and guides, *bantay dagat* or fish wardens,<sup>2</sup> as well as of the members and non-members of fishers associations who are affected by the establishment of the MPAs. After this I did key informant interviews and participant-observation to capture the dynamics and the tensions behind the persistence of Dauin LGU to establish more MPAs despite the resistance of some disgruntled resource users from the fishery and tourism sectors.

Since completion of my dissertation, the proximity of Dauin to Dumaguete has allowed me to continue to visit the former and remain aware of some developments in the municipality related to its MPAs, tourism, and local politics. It was in the early part of 2015 that I decided to re-examine the issues surrounding the establishment and management of MPAs and engaged in second period of fieldwork. With the help of research assistants, forty key informant interviews were done with officials of the municipality and barangays who are involved in overseeing MPA management, the sea wardens, the officials and members of fishers associations who directly managed the MPAs, the fishers who are non-members of these associations, the resort and dive shop operators, and dive guides.

In the succeeding sections, I will compare and analyze past and current perceptions and experiences of various MPA stakeholders, specifically on some management issues. Although other new MPAs will

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<sup>2</sup> There are currently two types of sea wardens. The first type includes the municipal sea wardens who are currently composed of a chief, two deputy officers, and 19 members. They are under the Office of the Coastal Resource Management (CRM) Coordinator and assigned in all coastal barangays of the municipality. The second type, in existence since 2005, includes those affiliated with fishers' associations managing particular MPA. Municipal sea wardens did not exist during my first fieldwork and must have been introduced to provide "check and balance" to MPA management. The number of sea wardens being employed in addition to the number of sea wardens affiliated with fishers' associations, is an indicator that the MPAs have significantly provided alternative employment opportunities to some fishing households.

also be mentioned, more attention is given to the two MPAs located off the barangays of Masaplod Norte and Poblacion 1, which were established earliest. The investigation specifically focuses on the conditions of coastal and marine resources before and after protection, conflicting spatial perceptions, access claims by the tourism and fisheries sectors, enforcement of the MPA buffer zone which limits fishing opportunities, the collection and appropriation of user fees for MPA management, and the imposition of higher user fees. The goal is also to determine whether or not changes in perceptions and experiences on these issues over time and across sectors are evident in the responses of key informants. The analytical aim is thus to highlight the issues that are non-negotiable and those that can be adjusted as a form of adaptive management to collaboratively ensure mutual and sustainable benefits from the MPA.

### **Perceptions of past resource quality**

During my first fieldwork period there was a generally held perception that the coastal and marine resources of Dauin were already in a crisis. The crisis had affected the quality of life of the residents in terms of their sources of protein food from the sea. But any introduced or adopted interventions such as the MPA were not easily appreciated because such would take years to produce tangible positive results—and only if properly managed—moreover the MPA imposes limits on the traditional use of coastal and marine resources of local communities (Jentoft et al. 2011). Therefore, it is necessary to start with the reconstruction of the specific instances when the coastal resources of Dauin had been used and abused in the past to provide the context for the efforts of protection and conservation, and to understand how multiple stakeholders with conflicting agendas had supported or resisted the LGU's call for support.

The participatory coastal resource assessment document compiled by the USAID-funded Coastal Resource Management Project (CRMP) in 2000, with external technical support led by the Department of Environment and Natural Resources (DENR) and non-government organizations, showed how a combination of anthropogenic factors made Dauin an appropriate host for this type of project. The problems included: the encroachment of outside fishers into the municipal waters, illegal fishing, and overfishing, which were aggravated by administrative and legal issues. As a result, the supply of fish and other marine organisms available to local fishers and gleaners had seriously diminished (Yambao et al. 2001). Moreover, a growing coastal population, poor waste disposal, poor enforcement of fishery laws, and a lack of concern of the various stakeholders to protect and conserve the fishery and marine resources of

the town, were the weaknesses identified, and which the CRM Plan subsequently addressed (Municipality of Dauin 2001).

The interviews we conducted among fishers and officials of fishers' associations that managed MPAs in the barangays of Masaplod Norte and Poblacion 1 confirmed the CRMP assessment document. Asked about the past conditions of the coastal zones and the coral reefs in their barangays before they were delineated and appropriated according to appropriate uses, the fishers all reiterated that the damages could be attributed to overfishing as well as the use of destructive and illegal fishing methods. They agreed that increasing numbers of fishers living not only along the coast, but also coming from the interior or upland barangays of the municipality and even from outside, had contributed to the deterioration of the quality of the coral reefs and resulted in their poor catches. They generally rated *poor* the supply of fish and the conditions of the coral reefs before these were protected with the establishment of MPAs.

### **Perceived improvements attributed to MPAs**

In 2005 I had asked the sea wardens, fishers' association officials, and fishers in the two barangays where the first MPAs were established to evaluate, based on their observations and experiences, the effects of the MPAs on the condition of the fish and corals. They generally agreed that the conditions of fish and corals within the MPAs had *moderately* improved when they compared conditions before and after their declaration. Those in the dive tourism business and the members of fishers' associations shared the same observations about the conditions after the establishment of MPAs, but they had variable observations about the improvement of fish and coral conditions within the MPAs. The fishers perceived significant improvements compared with those in the tourism business, although the latter were directly exposed to the underwater conditions inside the MPAs.

Meanwhile, observed biophysical improvements in the surrounding waters of the MPAs, particularly fish density, can be appreciated as indicators of MPA spillover effects which are relative to the ages of the MPAs. The Apo Island MPA is older than those off the mainland of Dauin. In a separate study, I have shown that, compared with a fishers in the mainland, Apo Island fishers sampled perceived higher spillover effects for their MPAs during the same period (Oracion 2005). Similar improvements in their surrounding waters can be expected for the other MPAs as they age if fishing pressure is subsequently reduced through strict enforcement of the buffer zone regulation. Biophysical assessments

made by the scientists of an NGO that provided technical assistance have reinforced the general perceptions of stakeholders about improvements in fish and coral conditions of its MPAs (White et al. 2002). These MPAs are catching up with the conditions of Apo Island MPA and have served as alternate dive sites during bad weather when going to Apo Island is dangerous. However some members of fishers' associations claim that the spillover effects of MPAs are not enough to compensate for the growing population of fishers in the municipality.

Experts have explained that the abundance of "target species", which include those that they preferred to catch because of their market or consumptive value, is a measure of MPA effectiveness. The assessment done in 2001 by White et al. (2002) showed that Masaplod Norte MPA, the earliest of the MPAs from the mainland, had the highest density of target fish species, as compared with Apo Island and Poblacion 1 (in this order). The same report added that Masaplod Norte MPA is "consistently high in diversity and abundance in both reef fish and target reef fish" (White et al. 2002: 11). In Poblacion 1 MPA hard coral cover was fairly high and all reef fish were also quite abundant but its target reef fish were by comparison less abundant than in Masaplod Norte. According to the experts the presence of small sharks within and in the vicinity of the MPA of Poblacion 1 suggested improved fish stocks therein that attracted these predators. Sea turtles and schools of barracuda are also reported. But what have attracted more recreational divers to Poblacion 1 MPA are the beautiful and colorful corals as well as the smallest species of fish and other marine organisms which are targets of macro-photography.

### **Tourism growth**

The increase in the number of resorts and dive shops in Dauin over the years is further indication of the improvement of the coastal and marine attractions of the municipality. There were 14 resorts and dive shops that I recorded in 2005 as compared to the 28 by 2015, a sign of the growing coastal and dive tourism industry in the municipality. There were establishments that had closed but more new ones had opened. The significant increase in user fees collected for the same period reflects the growing interest in the MPAs of Dauin which are being featured in the websites of resorts and dive shops. Over the years, there has been increasing collection of user fees, for an average of ₱4,502,559.38 per month (Table 2). But the coming in of foreign tourists is seasonal, influenced by the climate in the Philippines as well as in the countries of origin of tourists (see also Oracion 2007).



The generated MPA user fees had significantly picked up since 2002, when the ticketing system for the touristic use of the MPA was initiated with the assistance of an NGO, due to the more efficient collection procedure. The abrupt increase (668.27%) in 2005 likewise marked the increase in the price of tickets following the passage and implementation of the Revenue Code of 2004 of Dauin (Ordinance No. 05-01). In the ticketing system, no cash is paid on site but the tourists through the dive shops have to purchase entrance tickets ahead of time from the Treasurer's Office in the municipal hall. The sea wardens on duty collect the tickets and keep these, which the fishers' association has to report to the Treasurer's Office every end of the month. The amount of the accumulated tickets constitutes the collection of MPA user fees of the association from which its share is computed. There was a decrease in the 2014 collections which was due to the reduced rates starting September of that year in response to the request of resorts and dive shops operators according to the CRM Officer of Dauin.

**Table 2.** MPA user fees collections

Year	Amount (₱)
2002	93,050.00
2003	66,050.00
2004	302,150.00
2005	2,321,320.00
2006	3,518,050.00
2007	4,989,850.00
2008	6,223,660.00
2009	6,349,661.00
2010	6,572,965.00
2011	6,845,188.00
2012	7,015,130.00
2013	7,337,005.00
2014	6,899,193.00
<i>Average</i>	<i>₱4,502,559.38</i>

Allocation of shares from the collected user fees is done at the end of every month (Ordinance No. 10-02). Forty percent is for the general fund special account of the municipality which is for coastal resource management projects, coastal law enforcement, livelihood program for fishers, research, training, and education. Another 40 percent is given to the fishers' association that enforces and maintains a particular MPA, and

20 percent is the share of the barangay where a particular MPA is located. However, the barangay governments and fishers' associations have to submit their respective accomplishment report and approved work and financial plan (WFP) before they can claim their respective shares. The municipal LGU also maintains and pays its own sets of sea wardens, as mentioned earlier.

### **The open access claim of fishers**

The perceived improvements in the quality of fishes and corals within the MPAs raises the question of "Why are some resource users still against MPAs?" For instance, anecdotal reports that fish trappers, gleaners, and hook and line fishers still insisted in fishing inside the MPAs despite the prohibitions and warnings when these areas were delineated were common in the past.

It should be noted that those who originally voted for the MPAs were not really fishers; as the anti-MPA fishers commented, the former had nothing or less to lose. In contrast, those who were into subsistence fishing were mostly non-members of fishers' associations, they considered the MPAs to have deprived them of their traditional fishing grounds and refused to accept them, even at present. However the sea wardens and those linked with fishers' associations consider the resistance to MPAs from both the fishery and tourism sectors to have been more intense in the past compared to the present. Anti-MPA sentiment has lessened in response to the favorable results of the MPAs being felt now, but it clearly still maintains divisions in the community between members and non-members of fishers' associations, between friends and relatives.

There were also fishers insistent on fishing within the buffer zone, which can be interpreted as expression of resistance. A net fisher suggested that the buffer zone should be removed to be fair to every fisher since it was anyway poorly enforced and poorly complied with, even by those who are supposed to guard it. But the buffer zone was instead expanded to 30 meters, which aggravated the resentments of those affected; they contend that it now extends very far from where the fish are and had also reduced the area for beach seining. The fishers asked, why is free access to the buffer zone denied when it is outside of an MPA's core zone? Generally speaking, almost half of the fishers I interviewed during my first period of fieldwork, majority of whom were not members of fishers' organizations, strongly objected to the buffer zone regulation. The same trend is evident at present. The fishers argue that using their hooks and lines, nets, and fish traps in the sandy areas outside the restricted

zones result in poor catches because the fish abound near the coral reefs—precisely why the fish are generically referred to as “*isda sa bato*” or ‘reef fishes’.

The disgruntled fishers grumbled, ‘how could food security on their table be assured if given their types of fishing gear they were prohibited from fishing close to the MPAs?’ They argued that their small boats, paddled by hand, only permit of fishing near the coast. I recall the remark of a young fisher who said: “*Mora pud sila nakapanag-iya sa dagat. Maayo man sila kay gadawat og binulan nga sweldo. Ngano mang did-an ang gagmay nga mananagat?*” (‘It’s like they own the sea. It is well for them because they receive a monthly pay. But why should they deprive the small fishers (of a living)?’). A sea warden recalled how he was told by a fisher he prevented from fishing within the buffer zone that ‘those who are moneyed have no problem because they can buy fish’. It is more difficult for small fishers to make a living now that almost all the waters off the coastal barangays of Dauin have MPAs or are “fenced”. Allowing them to fish within the buffer zones might have been a consolation for the subsistence fishers even if more MPAs proliferate in the municipality.

Enforcement against fishing within the buffer zone has a better biological than economic reason. One municipal official who was sympathetic to the fishers was also against the ban, but not necessarily ignorant of its rationality. He believed that only fishing within the core zone is intolerable; for him, as long as they do not intentionally fish inside the MPA, fishers should not be deprived of the means of honestly earning a living. The small fishers also find support from an environmental lawyer who states that the Fisheries Code is actually silent about the buffer zone fishing restriction. This lawyer also said that allowing use of a non-destructive fishing method within the buffer zone is in accordance with the *principle of social equity*. This could be a compensatory move for the fishers who are deprived of their traditional fishing grounds whereas recreational diving is allowed inside the MPA. Thus, even up to the present, a feeling that the MPA does not benefit them prevails among non-members of fishers’ associations. The MPA as a social class issue is evident here (which is also true in the study of Fabinyi 2008).

### **The free access claim of tourism**

The tourism sector associates an MPA with user fees, for them it becomes a symbol of restrictions on free access as compared to previous time when these areas were not yet opened or were undeclared as protected. By contrast, the sea wardens and fishers’ association officials consider an

MPA as a regulatory structure to prevent destructive activities and that the collected user fees are meant to restore whatever damages there may have been to the area. The conversion of a coral reef area into an MPA near a cluster of resorts during my first fieldwork provoked resistance from them because of anticipated obligatory payment of user fees as well as the prohibition against night diving. Incidentally, no similar clamor was heard about existing or old MPAs like those located off the barangays of Masaplod Norte and Poblacion 1 except on the user fee hike because these were established before most of the resorts and dive shops started operation in Dauin. In the past, tourists who went diving or snorkeling inside these MPAs were not obliged to pay any fixed amount. The tourists were not bothered by the practice of giving any amount as a donation, which, however, was hardly accounted for by the concerned fishers' associations that managed particular MPAs.

The resistance to the declaration of a protected coral reef near the cluster of resorts, mentioned earlier, was due to the fact that these resorts had been using this area freely; thus, they referred to it as their "house reef" (Zubi 2005). Resort guests were brought here for diving anytime they wanted, including at night. Calling the said site as "house reef" implies some sense of symbolic ownership by virtue of proximity and suggests that the resort felt entitled to free access. Although the name was originally intended as a locator of a dive site and is advertised in websites to enable tourists to imagine the convenience that awaits them once they come, the sense of property this promotes has given the resort and dive shop operators which use this term a business advantage over others. In fact, one resort in the past installed a floating bar above the coral reef fronting it where its guests could spend time drinking and eating. It was eventually removed by order of the mayor at that time upon reports of coral damage underneath the bamboo raft.

The coral reefs fronting the resorts are favored for night diving not only because they contain fascinating nocturnal species (Maypa 2004), but also because of the sense of security for the divers who do not have to travel far at night. The declaration of the area into an MPA had stopped night diving for a while which would result to a reduction in the income of dive shop operators. Meanwhile, the imposition of user fees for diving inside the artificial reef of Poblacion 2, including its conversion to an MPA, was also questioned at first. It was argued that a declared MPA must have considerable coral cover to protect. The waters off Poblacion 2 all have sandy bottoms except for the dilapidated buses and bancas that were dropped there for diving purposes by a private resort (hence, it is called a wreck dive site). Given this, majority of the resort operators and

dive guides were against the imposition of user fees for diving within the artificial reef in 2005. But realizing now the value of protecting the artificial reef from fishing, a resort manager in a recent interview voiced agreement to its declaration as an MPA.

Generally, the tourism sector is willing to pay to dive inside the early MPAs in exchange for the protection efforts of the local government, but they are against excessive imposition of fees. They resisted the increase in the rate, the payment of fees per dive and per site rather than per day, restrictions placed on night diving, and the declaration of more MPAs to include popular dive sites that the divers had discovered. The same sentiment is still expressed at present. Furthermore, they proposed that some coral reefs that they claimed are not ecologically feasible for MPA status should be spared and remain free for recreational diving, especially for those under training. Lower rates for Filipinos compared to the rates for foreign divers were also desired (Oracion 2007). More importantly, they always hope that the collections must be seriously utilized in MPA maintenance such as in removing underwater debris, repairing boundary and mooring buoys, and improving the roads toward the MPAs.

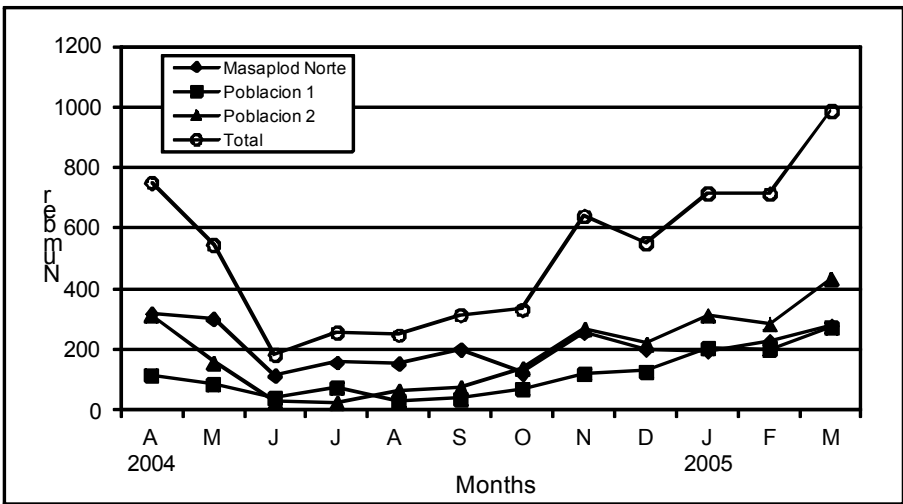
Meanwhile fishers who are non-members of fishers' associations also hoped that the user fees are realistically translated to livelihood projects for all affected local fishing households.

### **On user fees for MPA privilege and maintenance**

Individuals or groups that enjoy the use of a commons given up by or deprived to others should pay for the privilege to compensate the latter based on *principles of benefit and equity*. This notion underlies the imposition of user fees, and increases in these fees, which are used in MPA maintenance and enforcement of regulations. The MPA users that include the resort and dive shop operators, and tourist divers, are expected to pay more because it directly benefits them when they are given access privilege. In reality, the resort and dive shop operators are not burdened because the increase is just transferred to the recreational divers who actually pay the fees. The former would argue, however, that an increase in the user fee rates will discourage the tourists from diving again in Dauin. The officials and members of fishers' associations for their part believe that the amount is just a small portion of the total expenses that tourists spend for their travel, food and accommodation (Oracion 2007).

From the point of view of Dauin LGU, the collection of fees follows the same principle as in the imposition of annual business taxes. Needless to say, the user fees collected still benefit tourism business as an offshoot

of well-maintained MPAs. It also cannot be denied that the user fees have significantly contributed to the meager budget to sustain the financing of Dauin’s CRM program. From this point of view, the increase in the user fee rate is justified due to the high cost of materials for MPA maintenance. The increase in the user fee rates is deemed only fair, and according to fishers’ association officials it is also a preventive measure because it will discourage more tourists from diving inside the MPAs, thus reducing potential damage. The feared decrease in the volume of tourist arrivals and revenues due to hiking user fees was disproven however because this is already offset by the increased price of user fees in 2005 which averaged to 186 percent. Figure 1 also shows that there was an increasing trend in scuba diving in three MPAs monitored during my fieldwork. The increase in the number of dive resorts in Dauin, as mentioned earlier, further suggests that increasing numbers of dive tourists have been coming in recent years.



**Figure 1.** Incidence of scuba diving inside three MPAs within a 12 month observation period (Oracion 2006b:107).

In a separate development, the imposition of separate fees for the use of underwater cameras arises from the suspicions of some fishers’ association officials that tourists are making money when they go back home from sale of the pictures and footages they have taken. Those in the tourism business come to the defense of the tourists and deny this

allegation as hasty and without basis: these are simply taken as souvenirs. The pictures of the exotic, diverse, and fascinating underwater creatures of MPAs are artifacts that document the travels and the places visited by tourists, which they can be proud of, and show to relatives and friends upon returning home. Picture-taking behavior of tourists is environmentally friendly and replaces the past practice of taking home underwater organisms such as corals and shells, as souvenirs.

One resort operator argues that local officials should be grateful to the tourists who in effect serve as promotional agents regarding the attractions in Dauin without cost to the government. The Department of Tourism (DOT) spends millions of pesos for promotions and the circulation of pictures and footages taken by tourist divers are of help in that effort. It was argued that tourists who come to Dauin show these to relatives and friends back home which entices them to come and visit the Philippines. However, one fishers' association president held that the said promotions actually serve best the business interests of resort and dive shop operators. In 2005, when the said fees were made part of an ordinance (Ordinance No. 05-01), an official of an NGO assisting Dauin agreed about the promotional value of the pictures and films taken by tourists but not the in reasonableness of the fees.

### **Persistence of tension amidst success**

Various types of communities can agree about the deteriorating condition of coastal and marine resources but not really on what appropriate mitigation has to be introduced and how this has to be done. Personal and sectoral interests when threatened are hindering factors in introducing a well-intentioned mitigation. Scientists and advocates have viewed MPAs as conservation tools while the LGU leaders in addition to their ecological relevance, consider MPAs to be sources of revenues to finance CRM programs. In contrast, those in the fishery sector favorably view MPAs according to how these can provide food on their tables while those in the tourism sector enjoy them as spectacles. Any disruptions to the traditional ways coastal communities perceive, live with, and utilize marine resources expectedly create two types of tensions. First, there is resentment among those who were already advantaged under the pre-MPA period, and second, there is opposition among those who are deprived of their resource base, which they have silently or violently expressed towards people who pushed for changes in the manner the MPAs have to be managed and appropriated.

The scientists from the academe and non-government organizations as well as advocates and funders of marine conservation generally worked and rallied behind the Dauin LGU for the creation of more MPAs to form a network. The MPAs were cited as investments for ecological and food security in justifications for this massive effort of the past administration, including the formation of fishers' associations that would manage them (Oracion 2006a). The past leadership of the LGU was open to technical and financial supports from scientists, advocates, and funders. Interestingly, despite their political differences and rivalry, the incumbent administration also continued the management and enforcement of all the MPAs amidst resentment from some fishers and resort operators. The MPA benefits enjoyed by the incumbent administration must be a holding or sustaining factor. And like what Fabinyi (2008) describes in his own study, such ability of Dauin LGU to push for more MPAs is a successful assertion of territorial claims and advancement of agenda with seeming benefits to the coastal and marine environment.

Disgruntled fishers, composed mostly of non-members of fishers' associations, together with those in the tourism business, however, are not against the MPAs per se. They have seen the relevance of having MPAs but they are displeased about how some MPA management policies and practices, which are ecologically sound, have deprived them of their income. This problematic paradox in nature conservation also intrigues other authors (Roncina et al. 2008, Suuronen et al. 2010, Bennett & Dearden 2014). The affected fishers complained that they are grossly denied of their traditional fishing grounds, prevented to fish even within the buffer zone which they believe is already outside of the MPAs, and deprived of alternative sources of income from projects using the MPA user fees (which are only enjoyed by members of fishers' associations). On the other hand, the private tourism brokers have reacted to the practice of the LGU to declare all dive sites as MPAs, which now require payment of excessive price of user fees, for having too many other fees aside from for snorkeling and diving, and their proper use of the user fees in MPA maintenance.

A sense of entitlement to fishing within the buffer zone prevails among affected local fishers, 'in exchange for' losing their traditional fishing grounds turned into MPAs. The persistence of passive and "non-destructive" fishing gears within the buffer zone manifests resistance to such dispossession. The fishers perceive the tourism sector to be more favored because they are allowed inside for a fee while the poor fishers compete for the promised spillover of mature fishes outside of the MPAs—spaces that are heavily fished or exploited (see also Oracion et al.



2005, Tongson & Cola 2007, Fabinyi 2008). Meanwhile, some in the tourism business seek for free access to MPAs as their entitlement for having paid taxes and for providing employment. But the LGU cannot agree with this because MPA maintenance and enforcement require funds. The LGU also considers user fee imposition as regulatory in the exercise of its legal mandate to protect municipal waters (Oracion 2007). The Dauin LGU and fishers' associations, moreover, are also viewed as not really concerned about conservation but more about the money sourced from the dive tourism industry. Nevertheless, the recent reduction in the price of user fees in Dauin in response to clamor from the tourism sector recognizes the latter's contribution to the local economy and marine conservation program.

### **Conclusion**

The success of the CRM program of the Municipality of Dauin with MPAs as tools can be measured in two ways: direct and indirect. The direct measure is the observable improvement in the fish density and coral cover within the MPAs per reports of scientists affiliated with NGOs that had assisted the Dauin LGU in its CRM program. One of the indirect measures is the increase in the number and network of MPAs being established and enforced in Dauin. Another related measure is the increase in the number of resorts and dive shops due to the influx of more tourists. The attractiveness of the MPAs leads to the growth of the dive tourism industry which subsequently resulted to the increase in the collected user fees. All these indicate successful co-management between the LGU and fishers' associations although the quality of MPA maintenance and enforcement are debatable. The national recognition received by Dauin LGU even before the increase in the number of resorts and dive shops in this municipality attests to the success of its CRM program.

But there are unresolved management issues that sparked both silent and open resistance and tensions between the various resource users and the MPA management which subsequently have undermined MPA success. This is not unique to Dauin, Fabinyi (2008) had earlier reported similar situations in his study of MPAs in the Calamianes Islands in Palawan that have also become dive tourism destinations. He wrote that there are "tensions over different understandings about the purpose of MPAs among stakeholders, no presentation of realistic scenario of the economic costs and benefits that fishers can expect over what timeframe, and failure of a compromise between the diverse and frequently opposing perspectives of MPA stakeholders" (p.93). Such tensions can be avoided if only the appropriation is socially accepted relative as to what MPAs are

intended for and how they are technically designed. This process includes whether or not the different representations of MPA by various stakeholders are carefully negotiated and eventually reconciled (see Trist 1999, Tongson & Cola 2007).

There are management issues that I believe can still be negotiated although it means losing some initial accomplishments of the MPAs that already benefited the LGU and fishers' associations. These issues include the presence of MPAs in almost all coastal barangays of Dauin and the prohibition of fishing within the buffer zone, which the subsistence fishers view as inimical to them, given the limitations of their fishing technology. Another is the non-members of fishers' associations' specific complaint of not enjoying the benefits of MPA user fees. Issues that concern the tourism sector include the collection of user fees, which some dive shop operators consider exorbitant and not properly used for MPA maintenance. All of these issues require trade-offs depending on the available options. Fishing may be allowed using passive gear within the buffer zone if empirically proven to be non-destructive. The dive tourism sector must see that a portion of the user fees, whose rate was recently reduced, are properly used to maintain MPA quality and that alternative livelihood is provided to all affected fishers, not only the members of fishers' associations, so they will not be continuing threats to the MPAs.

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### **References**

- Alejo, Albert E. (2000). *Generating Energies in Mount Apo: Cultural Politics in a Contested Environment*. Quezon City: Ateneo de Manila University Press.
- Arquiza, Yasmin D. (1996). Turning Green in the Country's Last Frontier. In S.S. Coronel (ed.) *Patrimony: 6 Case Studies on Local Politics and the Environment in the Philippines*. Pasay City: The Philippine Center for Investigative Journalism. Pp.45-63.
- Bennett, Nathan James and Philip Dearden. (2014). Why Local People Do Not Support Conservation: Community Perceptions of Marine Protected

Area Livelihood Impacts, Governance and Management in Thailand, *Marine Policy* 44:107–116

Christie, Patrick, Bonnie J. McCay, Marc L. Miller, Celia Lowe, Alan T. White, Richard Stoffle, David L. Fluharty, Liana Talaue McManus, Ratana Chuenpagdee, Caroline Pomeroy, Daniel O. Suman, Ben G. Blount, Daniel Huppert, Rose-Liza Villahermosa Eisma, Enrique Oracion, Kem Lowry and Richard B. Pollnac. (2003). Toward Developing a Complete Understanding: A Social Science Research Agenda for Marine Protected Areas. *Fisheries*, 28 (12):22-26.

Eder, James F. (2005). Coastal Resource Management and Social Differences in Philippine Fishing Communities. *Human Ecology*. 33:147-169.

Fabinyi, Michael. (2008). Dive Tourism, Fishing and Marine Protected Areas in the Calamianes Islands, Philippines, *Marine Policy* 32:898–904.

Gollin, Karin L. and James L. Kho. (2008). Introduction: The Promises and Premises of Community-Based Natural Resource Management, Chapter 1 In Karin L. Gollin and James L. Kho (eds.) *After the Romance: Communities and Environmental Governance in the Philippines*, Quezon City: Ateneo de Manila University Press, pp.1-15.

Hansen, Gretchen J.A., Natalie C. Ban, Michael L. Jones, Les Kaufman, Hazel M. Panes, Maï Yasué, and Amanda C.J. Vincent. (2011). Hindsight in Marine Protected Area Selection: A Comparison of Ecological Representation Arising from Opportunistic and Systematic Approaches. *Biological Conservation* 144:1866–1875.

Hind, E. J., M. C. Hiponia and T. S. Gray. (2010). From Community-Based to Centralized National Management—A Wrong Turning for the Governance of the Marine Protected Area in Apo Island, Philippines? *Marine Policy* 34 (1):54-62.

Jentoft, Svein, Chuenpagdee, Ratana and Pascual-Fernandez, Jose J. 2011. What Are MPAs for: On Goal Formation and Displacement, *Ocean and Coastal Management* 54: 75-83.

Job, Hubert and Ferdinand Paesler. (2013). Links Between Nature-Based Tourism, Protected Areas, Poverty Alleviation and Crises—The Example of Wasini Island (Kenya), *Journal of Outdoor Recreation and Tourism* 1-2:18–28

Koldewey, Heather J., David Curnick, Simon Harding, Lucy R. Harrison and Matthew Gollock. (2010). Potential Benefits to Fisheries and Biodiversity of the Chagos Archipelago/British Indian Ocean Territory

- as a No-Take Marine Reserve, *Marine Pollution Bulletin* 60:1906–1915.
- MA (Millennium Ecosystem Assessment). (2005). *Ecosystems and Human Well-being: Synthesis* Island Press, Washington, DC.
- Maypa, Aileen P. (2004). A Rapid Assessment of the Contribution of Night Diving to the Income of the Municipality of Dauin, Negros Oriental: Interviews from Dive Resorts and Dive Groups. Coastal Conservation and Education Foundation, Inc., Cebu City, Philippines.
- Municipality of Dauin. (2001). Coastal Resource Management Plan 2001–2005. Dauin: Municipality of Dauin, Negros Oriental, Philippines.
- NSO. (2010). Census of population. National Statistics Office. [Accessed: 22 August 2012 from <http://www.census.gov.ph/data/census2010/index.html>]
- Oracion, Enrique G. (2005). Economic Benefits and Income Distribution due to Marine Protected Areas: Apo-Dauin Field Learning Sites. Final Report Submitted to the Environment, People and Protected Area Project-Silliman University Angelo King Center for Research and Environmental Management, Silliman University, Dumaguete City, Philippines.
- Oracion, Enrique G. (2006a). A Mayor and His Politics of Marine Protected Areas: A Case Study in Political Anthropology of Environmentalist Discourse. *Philippine Quarterly of Culture and Society* 34 (4):338-375.
- Oracion, Enrique G. (2006b). Appropriating Space: An Ethnography of Local Politics and Cultural Politics of Marine Protected Areas in Dauin, Negros Oriental, Philippines. Unpublished Dissertation in Anthropology, University of San Carlos, Cebu City.
- Oracion, Enrique G. (2007). Dive Tourism, Coastal Resource Management, and Local Government of Dauin. *Philippine Quarterly of Culture and Society* 35 (3):149-178.
- Oracion, Enrique G. (2013). Cultural Resistance to Marine Protected Areas: A Political Anthropological Perspective. *Philippine Quarterly of Culture and Society* 41 (3/4):230-251.
- Oracion, Enrique G., Marc L. Miller and Patrick Christie. (2005). Marine Protected Areas for Whom? Fisheries, Tourism and Solidarity in a Philippine Community. *Ocean and Coastal Management* 48:393-410.
- Ordinance No. 1, s. 1986. An Ordinance Protecting the Reserve Fish Sanctuary Area of Apo Island, Dauin, Negros Oriental. Office of the Sangguniang Bayan, Dauin, Negros Oriental. November 3, 1986.

- Ordinance No. 02-01. An ordinance supplementing Sec. 3 (Definition of Terms) and Sec. 4 (Prohibition) of Ordinance No. 97-02, declaring a portion of the municipal waters located east of Masaplod Norte, Dauin, Negros Oriental as marine reserve area for the protection, conservation, regeneration and rehabilitation of the fishery and aquatic resources of this municipality and amending Sec. 5 (Fees) and Sec. 6 (Allocation of Shares) PAR. "a", "b" and "c". Office of the Sangguniang Bayan, Dauin, Negros Oriental. February 18, 2002.
- Ordinance No. 05-01. An Ordinance Adopting the Revenue Code of 2004 of the Municipality of Dauin, Negros Oriental and Amending Ordinance No. 93-01 entitled the Municipal Tax Ordinance of 1993. Office of the Sangguniang Bayan, Dauin, Negros Oriental. January 3, 2005.
- Ordinance No. 10-02. An Ordinance Amending Section 6.13 (A) (1) (2) (3) (4) (5) (6) (7) (C) (D) (k) (m) (E) (23) (F), Section 6.41, 6.42), Section 61(1a) and (4) of Article F, Chapter VI of the Revenue Code of 2004 of the Municipality of Dauin.
- Pollnac, R. and T. Seara. (2011). Factors Influencing Success of Marine Protected Areas in the Visayas, Philippines as related to increasing protected area coverage. *Environmental Management* 47:584–592.
- Resurreccion, B.P. (1998). Women at the Epicenter? Theoretical Reflections on Gender Relations, Development and Environment. In E.E. Sajor and B.P. Resurreccion (eds.) *People, Power and Resources in Everyday Life*. Diliman: Institute of Popular Democracy. Pp.55- 135.
- Rural Health Unit (RHU). (2004). Population Data of Dauin. Municipality of Dauin, Negros Oriental, Philippines.
- Roncina, Nicolas, Frédérique Albana, Eric Charbonnelb, Romain Crec'hriouc, Raquel dela Cruz Modinod, Jean-Michel Culiolie, Mark Dimechf, Raquel Gonig, Ivan Gualah, Ruth Higgins, Elodie Lavissea, Laurence Le Direachj, BeatrizLunak, Concepcio´n Marcosl, Francesc Maynoum, Jose Pascuald, Jeremy Persona, Philip Smithn, Ben Stobartg, Emese Szelianskyd, Carlos Vallek, Stefano Vasellio, Jean Boncoeuira. (2008). Uses of Ecosystem Services Provided by MPAs: How Much Do They Impact the Local Economy? A Southern Europe Perspective. *Journal for Nature Conservation* 16:256-270.
- Suuronen, Petri, Pekka Jounela and VesaTschernij. (2010). Fishermen Responses on Marine Protected Areas in the Baltic Cod Fishery, *Marine Policy* 34:237–243.
- Tongson, Edgardo and Raoul Cola. (2007). Negotiating Stakeholder Agreements for Conservation: The Case of Tubbataha Reefs, Philippines. *Science Diliman* 19 (1):47-63

- Trist, C. 1999. Recreating Ocean Space: Recreational Consumption and Representation of the Caribbean Marine Environment. *Professional Geographer* 51: 376- 387.
- White, A.T., P. Christie, J. Apurado, A. Meneses, M. Ovenden, S. Tesch and E. White. (2002). Coral Reef Monitoring Surveys for Conservation in Cebu, Negros Oriental, and Siquijor, Philippines. The Coastal Conservation and Education Foundation Incorporated and the Coastal Resource Management Project, Cebu City, Philippines.
- Yambao, A.C., A.T. White, W.E. Ablong and M.R. Alcala. (2001). *Coastal Environmental Profile of Negros Oriental, Philippines*. Coastal Resource Management Project, Cebu City, Philippines.
- Zubi, T. (2005). Dive sites in Negros  
<<http://www.starfish.ch/dive/print/Negros-print.html>> Accessed on June 17, 2005.

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