Rethinking Community-based Conservation:
Participation in Marine Conservation in Two Case Studies from
Southern Leyte, the Philippines

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Glossary

Image (1):
Front-page, Mila Salazar cutting a sea urchin, Santa Lucia 21-02-2014

Banka
Small boat. Usually a dugout canoe with outriggers, sometimes with a roof of bamboo.

Barangay
Village or district. Municipalities and cities are composed of barangays.

Barangay captain
Head of the barangay, also called punong barangay.

Barangay council
Legislative body of the barangay. Composed of seven members, also called barangay kagawad, and headed by the barangay captain. It is the lowest level of elected government in the Philippines.

Bantay dagat
Watchdogs of the sea. Local sea patrol.

Barangay tanod
Barangay police officer

BFAR
Bureau of Fisheries and Aquatic Resources

Kamote
Sweet potato

Cleaning
Cleaning seashells is an act of removing shells. Often done by women with low tide. A knife is used to remove seashells attached to the stones and rocks.

CoMSCA
Community-managed Savings and Credits Association

Coral Cay Conservation
International marine conservation NGO which is “dedicated to providing the resources to help protect coral reefs and tropical rainforests throughout the developing world”.

Copra
Dried coconut meat from which coconut oil is expressed.

DENR
Department of Environment and Natural Resources

Emperador
Local brandy, 40 % alcohol.

Habagat
Habagat refers to the southwest monsoon, which is characterized by humid weather, frequent rainfall and prevailing wind from the West.

Habal-habal
Motorbike with extended seat to accommodate more passengers in a row.

Jeepney
A popular means of public transportation. Jeepneys are made from U.S. military jeeps left over from World War two.

Kabao
Water buffalo

**Local Government Code**  The Philippine congress introduced the Local Government Code in 1991 to provide a more responsive and accountable local government structure instituted through a system of decentralization².

**Malungay**  A multipurpose plant, as the leaves, pods, fruits, flowers, roots and bark of the tree can be utilized. Also called *moringa*.

**MFARMC**  Municipal Fisheries and Agriculture Resource Management Council

**MFLET**  Municipal Fisheries Law Enforcement Team

**MPA**  Marine Protected Area

**MPAOC**  Marine Protected Area Oversight Committee

**Nipa hut**  Native house, which is traditionally constructed with bamboo tied together and covered with a roof of leaves.

**NIPAS**  National Integrated Protected Area System

**ORC**  Ocean-action Resource Center is a local NGO “that answers the call for active marine-oriented environmental education and awareness in areas where it is most needed – in rural communities where marine conservation directly affects livelihood [...]”³

**Purok**  Smallest political unit. A purok consist of several households. The term also refers to a nipa hut, which is built in every purok.

**SariSari store**  Small convenience store selling candies, canned goods, cigarettes, cooking oil, salt, sugar, etc.

**Typhoon Yolanda**  Internationally called Haiyan took landfall in the Philippines on November 8th 2014 killing more than 6,000 people⁴.

**Yucca**  Cassava

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1. Introduction

It is windy and chilly and people are hiding their faces from the rain with blankets that come through the open windows on the second floor of the ferry. The smell of gasoline dominates the cool and fresh air of the night. People are waiting patiently for the third attempt of the ferry to dock at the pier of Hilongos. The first tropical storm of the year 2014 is affecting daily life and routine in the Philippines. It is the end of typhoon season and only two months have passed since super typhoon Yolanda struck Leyte killing more than 6000 people. I am on my journey to Santa Lucia in Southern Leyte where I am going to do research on the way how community participation in marine conservation is affected by the occurrence of natural hazards.

Having spent one night at the port to safeguard myself from possible landslides in the mountains I wake early to get a first glance of the damage Yolanda has left behind. To my own surprise the villages along the road to Santa Lucia do not appear to have any long-term damage from the typhoon and Santa Lucia is located outside the affected region. Although the village certainly has to cope with the occurrence of natural hazards I realized that, in order to study what is locally relevant, I had to change the focus of my research. What soon captured my attention and determined the further progress of this research was the Marine Protected Area (MPA) of Santa Lucia which is known to be one of the most popular dive sites of the province and frequently visited by divers. However, with the concerns of people in relation to the MPA, I became curious about the way how people actually perceive and participate in marine conservation activities. This is how community participation in marine conservation became the new focus of this study (based on field notes, 15-01-2014).

The Philippines is an archipelagic nation where the majority of the 92 million citizens live in coastal areas (Longhurst, et al. 2012). With such a great number of people living along the coastline Filipinos are highly reliant on marine resources as a primary source for food and income (Alcala & Russ, 2006). However, the state of the marine ecosystem is at risk. Besides many other factors human induced climate change and overfishing pose a threat to the marine environment (Roff & Zacharias, 2011). In reaction to this the government initiated laws to protect and conserve marine resources. With the establishment of more than 1600 MPAs since the 1970s the Philippines are known internationally to be a modern success story for community-based marine conservation (Alcala & Russ, 2006; Pollnac & Tarsila, 2011).
Community-based marine conservation as it exists today started in the 1970s at Sumilon and Apo Island. The Islands provided evidence that communities can, and often do play a key role in conservation (Pollnac & Tarsila, 2011; Goldoftas, 2009). The main objective in community-based conservation is to make people part of conservation (Hill, 2002). This objective is based on two main arguments: First of all, community-based conservation is based on the idea of benefit-sharing, where benefits for the environment have to go alongside with benefits for the community (Berkes, 2007). Second of all, it is assumed that conservation can only be effective with the support of communities (Alcala & Russ, 2006; Pollnac & Tarsila, 2011). This shift towards a people oriented approach to conservation is increasingly handing over the responsibility for natural resource management to communities. Advocated internationally through the Rio Declaration\(^5\) and United Nations Conference on Environment and Development Agenda 21\(^6\), governments at all levels have taken the responsibility to ensure opportunities for community participation in the management of natural resources (Burton, 2004; Clarke, 2008).

However, although governments at all levels support active forms of community involvement, and community participation in marine conservation is frequently required by governmental institutions, participation is often not well understood and the desired outcomes not always achieved (Beierle, 1998; Butterfoss, 2006; Clarke, 2008, Minter, et al. in press, Moote, et al. 1997). How communities actually participate in conservation is often taken for granted and remains unclear (Minter, et al. in press). In other words, how to effectively involve communities in conservation is an area that is underresearched (Clarke, 2008; Chase, et al. 2004). Given the inadequate attention of participation in community-based conservation this research aims to provide a systematic analysis of community participation in marine conservation. With this in mind the aim of this research is to answer the following research question: *How do people of Santa Lucia and Bulacan participate in marine conservation activities?*

To answer this question I will compare community participation in marine conservation in two different barangays\(^7\) in the province of Southern Leyte in the Philippines. The barangays are

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\(^6\) Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment, (UNCED, 1992).

\(^7\) Village or district. Municipalities and cities are composed of barangays.
called Santa Lucia and Bulacan. Although both places have been influenced by the conservation discourse on national level and are examples of community-based marine conservation, they take a different approach to conservation. To protect and conserve marine resource Santa Lucia has a Marine Protected Area. In Bulacan the main approach to conservation is based on Alternative Livelihood Programs. Although both approaches highlight community involvement in marine conservation, the two locations entail different outcomes in terms of community participation in marine conservation. This research wants to find out what the differences are and how the type of approach is affecting public support for marine conservation.

This research is based on ten weeks of anthropological fieldwork conducted from January until mid-March 2014. The main approach used is (participant) observation (Bernard, 2006; DeWalt & DeWalt, 2011). By visiting people at home, talking to barangay officials and participating in the daily life routines of fishermen and women I was able to unravel how people perceive and participate in marine conservation activities. Besides (participant) observation, I used techniques from the Participatory Rural Appraisal (Chambers, 1994a) and other methods like secondary data, focus group discussions and semi-structured and qualitative interviews, which are discussed in detail in the methodological chapter. This research also has its limitations and only covers a certain amount of time, a specific location and a limited number of people I have been able to talk to. Using the benefits of triangulation and methodological accountability, I tried to tackle the possible subjective character of a small scale, short time research in which the researcher himself is the instrument. This is how I aim to increase the validity and reliability of this research.

This thesis is divided into six chapters. The following chapter discusses methodology and ethical considerations of conducting anthropological fieldwork. In the third chapter I will ground my research in the theoretical debate. To do so I embed this research in the ongoing discussions about community-based conservation, community participation and the two main approaches to marine conservation in the Philippines. In chapters four and five I elaborate on empirical data collected and portray the two case studies of Santa Lucia and Bulacan. Both chapters take a first glance on community participation in marine conservation. Chapter six compares the two case studies and discusses the outcomes of this research in relation to the theoretical debate on community-based conservation.

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8 The names of people and places are all anonymized.
2. Methodology and Ethics
To unravel community participation in marine conservation I relied on qualitative anthropological research methods. Qualitative research has several advantages. Among others it provides an in-depth understanding of human behavior and the reasons that govern such behavior. In addition it offers the unique opportunity to change focus in order obtain a study that is also locally relevant (Bernard, 2006; Boeije, 2010). The main technique I used is (participant) observation. (Participant) observation is “a method in which a researcher takes part in the daily activities, rituals, interactions, and events of a group of people as one of the means of learning […] their life routines and their culture (DeWalt & DeWalt, 2011:1)”.

It is through (participant) observation that I was able to unfold the explicit and tacit aspects of daily life routines and find out how people are participating in marine conservation activities. Besides this, (participant) observation has the advantage to establish rapport which is needed “to grasp the world from their perspective (Robben, 2012:177)”.

Apart from (participant) observation, I adopted methods from the Participatory Rural Appraisal (PRA) to gather data. According to Chambers (1994a) PRA is described as a family of approaches and methods to encourage rural people to identify and analyze the most pressing problems in their community (Chambers, 1994a). In Santa Lucia this approach was beneficial in discovering the underlying reasons why some people expressed their concerns about the MPA.

To apply techniques from the Participatory Rural Appraisal I organized two community workshops. During the first workshop, which was public, I introduced myself to the community and informed them about my role as a student conducting fieldwork. The first workshop attracted forty-two participants, including women and men of different ages, as well as children and youth. The aim of the workshop was to allow the community to identify and analyze their relationship with their natural environment⁹. I applied various participatory techniques, which allowed me to find out what the struggles are of the people in relation to their natural environment. Some of the outcomes are portrayed in detail in chapter 4.1. The second workshop was a focus group discussion with twelve people. The workshop had as its goal to unravel the way how people rely on marine resources to sustain their livelihoods and what they know and how they think about marine conservation⁹. To do so I asked participants to indicate

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⁹ Appendix 1: Community Workshop 1: Environmental Problems, Communities Perception on their Relationship with the Environment and Identification of Core Problems, (05-02-2014).

ⁱ⁰ Appendix 2: Community Workshop 2: Marine Environment, Communities Perception on their Relationship with the Marine Environment and Identification of Core Problems, (19-02-2014).
on a map where their fishing grounds are, how much fish they catch on an average day, what type of fish and whether they used it for self-consumption or for commercial purposes. Later on they identified the problems they encounter with their marine environment and how they think about the MPA.

Based on Participatory Habitat Mapping I found out that the majority of informants experience restrictions to their fishing grounds. First of all, the majority of fishermen does not have a motorized banka, which is why they only fish along the municipal coastline. Second off all, the Municipal Ordinance (Elliott, 2011) allows them only to fish inside municipal waters. Limited in their mobility to fish further out in the sea, this is why some participants indicate that they experience the MPA as another restriction on their fishing grounds. Although not everyone is advocating the MPA, they are aware of the fact that marine resources have to be protected and conserved. Among other things participants point at illegal types of fishing, such as cyanide and compressor fishing, surface trolling, aquarium trade, fish aggregating devices and commercial fishing to be a threat to marine resources and affecting their fish catch. To find out whether people perceive the MPA to be a good approach to conserve marine resources I asked them to write down their opinion about the MPA on a piece of paper. The anonymous statements revealed that not that not everyone is advocating the MPA, but they do have suggestions for future improvement, which are discussed in chapter 4.3. The following diagrams present the techniques applied for both research locations more in detail:
### Santa Lucia

<table>
<thead>
<tr>
<th>Techniques applied</th>
<th>Specification</th>
<th>Number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative Interviews</td>
<td>Questions related to the MPA</td>
<td>5</td>
</tr>
<tr>
<td>Semi-Structured Interviews</td>
<td>Community workshop 1 &amp; 2</td>
<td>10</td>
</tr>
<tr>
<td>Participatory Habitat Mapping</td>
<td>Community workshop 1 &amp; 2</td>
<td>42 &amp; 12</td>
</tr>
<tr>
<td>Problem Tree Analysis</td>
<td>Community workshop 1 &amp; 2</td>
<td>42 &amp; 12</td>
</tr>
<tr>
<td>Anonymous Letters</td>
<td>Community workshop 2</td>
<td>12</td>
</tr>
<tr>
<td>Focus Group Discussion</td>
<td>Community workshop 2</td>
<td>12</td>
</tr>
<tr>
<td>Secondary Literature</td>
<td>Coral Cay Conservation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Municipal Department of Agriculture and Fisheries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Municipal Department of Disaster Risk Reduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barangay Council</td>
<td></td>
</tr>
<tr>
<td>(Participant) Observation</td>
<td>Cleaning seashells</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sitting at the beach, talking to fishermen and bantay dagats</td>
<td>up to 5</td>
</tr>
<tr>
<td></td>
<td>Walking in the center of the town, chatting with women and children</td>
<td>up to 20</td>
</tr>
<tr>
<td></td>
<td>Visiting barangay hall, talking to barangay officials</td>
<td>up to 8</td>
</tr>
</tbody>
</table>

### Bulacan

<table>
<thead>
<tr>
<th>Technique applied</th>
<th>Specification</th>
<th>Number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative Interviews</td>
<td>Ocean-action Resource Center</td>
<td>5</td>
</tr>
<tr>
<td>Secondary Literature</td>
<td>Barangay hall</td>
<td></td>
</tr>
<tr>
<td>(Participatory) Observation</td>
<td>Birthday celebration</td>
<td>more than 50</td>
</tr>
<tr>
<td></td>
<td>CoMSCA meetings every Saturday night</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Daily meetings at Allan’s house</td>
<td>up to 40</td>
</tr>
<tr>
<td></td>
<td>Expedition to San Pedro Island</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Construction of nipa hut</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Cutting and planting malungay trees / root crops</td>
<td>17</td>
</tr>
</tbody>
</table>
Considering the basic English skills of the people in both barangays the main language of communication was English. To guarantee no language barriers and make sure that informants were able to express themselves freely, I decided to work with a translator. Although in literature it is often argued that the use of a translator is affecting the validity of research (Squires, 2009), I also encountered many benefits. My translator was a twenty-eight year old Filipino, working for Coral Cay Conservation\(^{11}\). Although not from Santa Lucía originally he lived there during the week and knew the people well. To counter possible misinterpretations I told him explicitly to translate word for word of what my informants are saying. He was a good translator and very valuable for my research in addressing people in the community and gaining their confidence. Especially when asking them to express their opinions regarding the MPA he made them feel at ease and encouraged them to speak. In addition he provided his assistance in choosing my informants who had to be representatives of the community. Speaking to people of different age, gender, class and occupation my aim was to get a holistic picture of the community and include everyone in my research. At the same time, however, he was affecting the outcomes of this research. Working for a marine conservation NGO my translator is advocating the sustainable use of marine resources. This may have affected the responses of my informants into socially desirable answers. All in all I enjoyed working with a translator and he mentioned to continuing my research with his own socio-economic study.

During the process of gaining entrance to the community and selecting people to talk to I soon was confronted with the ethical dimension of anthropological research. In both barangays I first introduced myself to the barangay captain, who I asked permission to conduct this research. With the approval and signature from the barangay captain of Santa Lucía I distributed invitation letters for the first workshop. The approval from the barangay captain was necessary for the transparency of this research towards the people in the community. However, I had to take into account that, although the presence of the barangay captain during the first community workshop encouraged some people to speak, others were limited to express themselves freely. At a later stage in my research I tried to overcome this by conducting qualitative interviews. Gaining their confidence and encouraging them to express their opinion about the MPA evoked other ethical considerations.

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\(^{11}\) International marine conservation NGO which is “dedicated to providing the resources to help protect coral reefs and tropical rainforests throughout the developing world”, Coral Cay Conservation: About us, www.coralcay.org/about-us, accessed, 06-20-2014.
As indicated in the diagram I conducted twenty five qualitative and semi-structured interviews where I encouraged people to express their opinion about the MPA. I had been in the field for more than four weeks and some of my informants entrusted me with confidential information. This information was about corruption, breaking MPA-related rules and the lack of transparency of money collected from the divers’ fee. Sometimes the concerns of people were directed towards the recently elected barangay captain and council who were unable or not willing to have a well-managed and enforced MPA. I had to be aware that, if not treated confidentially, this information could place my informants in a harmful situation. Guided by the AAA Code of Ethics (2012) I knew that as an anthropological researcher I have the ethical obligation to consider the potential impacts of the information I receive and the way how I present my results. This is why I decided, although not desired by everyone, to anonymize my informants and the names of the two barangays in order to protect them from possible reactions. In addition I informed my informants about their right to refuse to answer certain questions. In some cases informants explicitly declined to answer certain questions. I had to accept that some people didn’t want to participate in my research.

In Bulacan it was the objectivity of my role as a researcher which became an ethical issue. It was towards the end of my stay when I became very much involved in the ongoing project of establishing a seaweed farm. Together with people from the community we had spent much energy and effort in planning and implementing the project. During this time I had become close friends with them. I decided to reward their hospitality with fundraising at home for a pump boat that was needed for the seaweed farm. My departure did not turn out the way it was planned and the fundraising never occurred. In this regard I was not able to reward them. Later I realized that, because I wanted to resolve problems the objectivity of my research was at stake. In other words, due to the complex issues that anthropologists confront it is very difficult to stay objective. We can seek for objectivity, but due to our own interference in the field, this is a difficult task to fulfill and the information we gather is always based on interactions we have with the people we study.

Due to my early departure I was not able to present my findings to my informants. With the presentation my intention was to get feedback from the people I studied and verify my data. This technique is called respondent validation (Bernard, 2006; Boeije, 2010). In the aftermath of

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12 I received an emergency call from home and had to fly back to the Netherlands a couple days earlier than planned.
my fieldwork I stayed in touch with staff from Coral Cay Conservation and ORC\textsuperscript{13} for the verification of my data. They were very helpful in passing on documents to my key informants and send them back to me with the necessary adjustments. Due to my early departure in Bulacan I did not have the opportunity to speak to people outside the scopes of Alternative Livelihood Programs. This affected my interpretations on community participation in marine conservation in the barangay of Bulacan and has to be taken into account in the way how the data is presented in this dissertation.

Throughout the process of conducting fieldwork I recorded and analyzed my data. When I was participating and making observations I made jot notes. In the evening I elaborated them into more detailed field notes. My proper field notes range from descriptive, to methodological, analytical and reflective (Boeije, 2010). They have all been written down on my computer. For the semi-structured and qualitative interviews I worked with a voice-recorder. To structure and analyze the collected data I used a coding system. I made categories and labeled them. Code memo’s provided specific information about the different categories and colored markers were used to highlight certain text fragments and differentiate them from others.

\textsuperscript{13} Ocean-action Resource Center is a local NGO “that answers the call for active marine-oriented environmental education and awareness un areas where it is most needed – in rural communities where marine conservation directly affects livelihood [...]”, www.oceanactiongroup.com, accessed, 24-06-2014.
3. Theoretical framework

With its focus on the two different case studies in the Philippines this research investigates community participation in marine conservation. This requires an analytical framework. To embed this research within the broader debate the next chapter discusses its conceptual model. The conceptual model consists of three components, each corresponding to a particular theoretical framework. The first concept is community-based conservation, which has become an important tool to conserve natural resources. The second concept is community participation which discusses the importance to systematically analyze participation. The following two concepts portray two different approaches to marine conservation in the Philippines; the third discusses Marine Protected Areas; the fourth Alternative Livelihood Programs. This is how this research is based on an up-to-date understanding of the contemporary conservation debate.

3.1. Rhetoric or Reality: Rethinking Community-based Conservation

The first component that is highly promoted within the conservation community and will be discussed in this chapter is community-based conservation (De Beer, 2012; Berkes, 2007; Hind, et al. 2010; Mac Donald, 2003; Pollnac, 2001; Russ & Alcala, 2006). The main objective of community-based conservation is that people will be more likely to comply with regulations when they are included in the management process of natural resources (Russ & Alcala, 2006). This is particularly so when they are granted with the opportunity to participate in the implementation and maintenance of the management system. Although community-based conservation has become increasingly popular, there is also critique. Some scholars point at community-based conservation to overemphasize the place of communities in the management of natural resource (Berkes, 2007; Hill, 2002); others question the conceptualization of the term `community` in community-based conservation and query whether it is a useful concept or a romantic idea (de Beer, 2012; Hudson, 2012; Hill Collins, 2010). Joining in with scientific research based on an up-to-date understanding of the contemporary conservation debate this research highlights the fact that we have to go beyond the romanticized and static representation of community-based conservation and rethink the rhetoric of community-based conservation. To begin with, the first paragraph discusses the emergence of community-based conservation.

Community-based conservation was first mentioned in the early 1970s, with most of its attention during the 1990s. It has emerged in reaction to the past conservation panaceas, for
example the global approach to conservation which constructed loss in biodiversity as an international concern, as practiced by the World Wildlife Fund (WWF), Conservation International (CI) and The Nature Conservancy (TNC) (Berkes, 2007). Another approach to conservation promoted the establishment of national parks. Both approaches received strong criticism: the WWF and the likes have often been criticized for being too large and too wealthy (Chapin, 2004; MacDonald, 2003). The national park-approach received criticism for being implemented by and often in favor of political and national elites (MacDonald, 2003). While in these previous approaches conservation was ‘fencing people out’ from conservation areas, community-based conservation stresses that social factors are the primary determinants of conservation success (Aechson, 2006; Berkes, 2007; Hill, 2002; MacDonald, 2003). Nowadays there is increasing consensus among scholars that communities have to be included in the management of natural resources.

In the Philippines this changing landscape of conservation resulted in a major shift within the national policy of marine conservation management (Alcala & Russ, 2006). With the establishment of hundreds of national parks and marine sanctuaries in the early 1990s the Philippine government began revamping its environmental agenda (Alcala & Russ, 2006; Goldoftas, 2006). While in the beginning this policy addressed conservation from a biological perspective and excluded people from the parks and sanctuaries, nowadays marine conservation approaches include both, the communities’ economic needs and the demand to protect natural resources. Devolving responsibility from a centralized government to local governments and communities the national conservation agenda is increasingly promoting a community-based approach to conservation (Dressler, 2006; Legaspi, 2001).

Community-based conservation is grounded in the following idea: “conservation must be ‘participatory,’ must treat protected area neighbors as ‘partners,’ and preferably must be organized so that protected areas and species yield an economic return for local people and the wider economy, and contribute to sustainable livelihoods (Adams & Hulme 2001:193 in Hill 2002)”. In other words, community-based conservation has dual objectives where benefits for the environment have to go alongside with benefits for the local community (Mascia, et al. 2003). To achieve these dual aims integrated conservation and development projects (ICDP) have become popular tools (Alcorn, 2005 in Cagalanan, 2013). These projects stress out the social aspects of conserving natural resources and underline the fact that development has to be an integrated part in conservation policies and practices (Cagalanan, 2013, Mascia, et. al. 2003; West & Brockington, 2006).
Despite its increasing popularity there is considerable debate within literature on community-based conservation (Berkes, 2007; de Beer, 2012; Hill, 2002). Some scholars doubt whether conservation can be successfully integrated in development (Berkes, 2007; Hill, 2002); others question whether conservation can be entrusted to communities and argue that “the current fashion for community-based natural resource management overemphasizes the place of local communities in tropical conservation efforts (Barret, et al. 2001 in Berkes, 2007)”. This research points at the rhetoric of community-based conservation to be threatened to become a blueprint solution in itself (Berkes, 2007; de Beer, 2012). The term ‘community’ tends to romanticize and stabilize the idea of community when, in fact, communities are more fluid and multidimensional (Hudson, 2012; Hill Collins, 2010). By referring to the term community, the conceptualization of community-based conservation leads to the suppression of within-group differences and homogenization. This understanding of community fails to consider the importance to look at the reality in terms of differences in class, gender, race, age, sexuality and religion.

Scholars now seek to take into account the complexity and ambiguity of the term and try to disrupt the nostalgic notions of community (Hudson, 2012; Anderson, 2006). They do this by conceptualizing community as a real or imagined place, characterized by a sense of connectedness and belonging. This research demonstrates that although literature highlights the importance to go beyond the romanticized and static idea of community and take into account the variations within the community in terms of class, gender, age, sexuality and religion, in reality the static representation of community can be used as a powerful tool to advocate community-based conservation. In other words, the term community can serve as a core instrument for organizing social reality for a variety of groups and different purposes.

This is because people make sense of their surroundings by referring to community as a social construct. According to Hill Collins (2010) community “constitutes both a principle of actual social organization and an idea that people use to make sense of and shape their everyday lived realities (Hill Collins, 2010:8)”. This would indicate that despite its epistemological framing as an apolitical, natural concept, the conceptualization of the term community in community-based conservation may be used for political purposes. According to Hill Collins (2010) groups have used the idea of community as “a site of affirmation, identification, and political expression (Hill Collins, 2010:10)”. For example, social movements that use the language of community as a powerful tool to challenge social inequalities. This research takes a close look at community
participation to reveal the conceptualization of community in community-based conservation. What the concept of participation means is presented in the next paragraphs.

3.2. A Systematic Analysis of Participation

Worldwide the concept of community-based conservation has become an important tool to conserve natural resources. This is why governments at all levels, advocated internationally through the Rio declaration and United Nations Conference on Environment and Development Agenda 21, have taken the responsibility to ensure community involvement in natural resource management (Burton, 2004; Clarke, 2008). In other words, global policies aim to increase opportunities for participation in sustainable development programs (Chase, et al. 2004). Although governments at all levels support active forms of community participation and participation in conservation is frequently required by government programs, the way how communities actually participate in conservation is often taken for granted and remains unclear (Minter, et al. in press). According to some scholars this is because there are considerable difficulties to measure participation (Beierle, 1998; Burton, 2004; Clarke, 2008; Minter, et al. in press, Moote, et al. 1997). By providing a systematic analysis of participation in marine conservation this research aims to fill this gap.

Due to the fact that the concept of participation is underresearched there is no clear definition for the term (Clarke, 2008; Minter, et al. in press). This is why this research adopted a particular set of participation indicators. These indicators address participation throughout the process; from initiation, to management and implementation and represent participation in a broad range of interests. The concept of participation implies:

1. **Public Support**
2. **Representation**
3. **Access**
4. **Decision-making Authority**
5. **Information Exchange**
6. **Continuity of Participation**

*Public support* tells us whether people voluntarily associate with conservation and feel it is responsive to their needs (Moote, et al. 1997). *Representation* is based on the idea that people of all interests are represented and integrally involved in making decisions (Clarke, 2008). People not only want to be well represented, they also want access to decision-making processes. People want to have access because they want to ensure that their interests are
well-represented (Clarke, 2008; Moote, et al. 1997). Besides this, people want to have the authority to contribute directly to the decision-making process (Burton, 2009; Clarke, 2008; Moote, et al. 1997). Therefore the public should not only have the opportunity to comment on proposed decisions, but actually participate in making final decisions (Moote, et al. 1997). This is essential because community participation in decision-making ensures public support in the implementation of decisions made. Information exchange increases public support and is important to well-informed decision-making (Clevo, 2003; Moote, et al. 1997). There has to be a reciprocal flow of information between various individuals and groups to facilitate the understanding of values, interests and concerns. Finally, participation should be continuous. Community participation should be based on a persistent network of interaction with others. Therefore “continuous feedback from participants is said to ensure that their evolving interests are adequately reflected in policy decisions (Moote, et al. 1997:880)”.

These six participation indicators serve as useful tools to analyze the degree of community participation in conservation. Particularly within the contemporary conservation debate, where community participation is often overlooked, this systematic analysis of participation provides important understandings on what community participation actually means and how it is put into practice. The following paragraphs discuss two community-based conservation approaches more in detail. The first approach that will be discussed are Marine Protected Areas, the second Alternative Livelihood Programs. In particular they focus on the way how the type of approach influences community participation in marine conservation. To begin with we first take a close look at the environmental policy of the Philippines.

### 3.3. Marine Protected Areas

#### Politics of Decentralization

The enthusiasm for community-based conservation has its origin in the fall of the Marcos dictatorship in 1989. This moment in Philippine history marked a notable shift in the relationship between the State and rural communities and particularly the way how natural resources are managed (Van der Ploeg, 2013). Previously natural resources were exploited by national elites, for example by state-sponsored logging and mining concessions (Goldoftas, 2006). In reaction the succeeding administrations of Aquino (1989-1992) and Ramos (1992-1998) introduced a people-centered policy of natural resource management (Alcala & Russ, 2006). The underlying idea was that the people’s concerns and livelihoods have to be addressed in the protection of the environment (van der Ploeg, 2013). This is how community-based...
approaches to natural resource management became the national policy for sustainable development and social justice. This shift towards a people-centered national policy is part of the decentralization process which served as the new framework of national government (Legaspi, 2001).

For the conservation of natural resources decentralization is understood as a means for devolving conservation authority to the subnational level (Dressler et al. 2006). The idea is that through the decentralization and devolution of management responsibilities people can benefit from natural resources more equitably and efficiently. In other words, decentralization is based on democratic objectives which serve to achieve equity, efficiency and sustainability in the governance of natural resources (Dressler, et al. 2006). In the Philippines the idea behind decentralization was to quickly develop the country by transferring power, functions and responsibilities from the central government to local governments (Alcala & Russ, 2006). The most promising piece of legislation was the introduction of the Local Government Code in 1991 which changed the relationships between the central government and the local governments remarkably. By devolving power and authority local governments were entrusted to make vital decisions in governing rural communities.

Simultaneously with the devolution of power, human-rights activists and scientists like Dr. Angel Alcala were appointed on key positions within the Department of Environment and Natural Resources (DENR). Dr. Alcala had conducted extensive research on community-based Marine Protected Areas on Apo and Sumilon Island since the 1970s introduced the new concept of natural resource management within the DENR. Alcala´s main objective was that benefits for the environment have to go alongside with benefits for the local community, otherwise there wouldn´t be consent and corporation of people of local communities. As a result community participation in the management of decentralized protected areas was institutionalized in 1992 with the National Integrated Protected Area System (NIPAS) (Legaspi, 2001).

Although decentralization and devolution continue to be seen as important concepts to conserve natural resources, especially in developing countries, there are numerous scholars with critique. Where some question whether conservation can be entrusted to communities and argue that resource dependent people often fail to successfully implement their devolved responsibilities (Barret, et al. 2001 in Berkes, 2007), others doubt whether decentralization can produce democratic outcomes and query whether conservation can be successfully integrated in development (Berkes, 2007; Hill, 2002). Other scholars express their concerns due to the
existence of political ‘partisanship’ which affect the participation of NGOs in local governance (Legaspi, 2001). In other words, with the growing responsibility of local governments and communities to conserve natural resources they are increasingly challenged to respond effectively to the demands and needs of the community. The next paragraph focusses on the national approach to conservation and discusses the concept of Marine Protected Areas more in detail.

**Decentralized Marine Protected Areas**

Marine Protected Areas are considered to be the number one marine conservation tool in the Philippines (Hind, et al. 2010; Horigue, et al. 2012). Based on various community-based and co-management schemes most of these MPAs have been set up and managed by communities together with local governments (Horigue, et al. 2012). According to various studies this approach has been very successful in combining conservation objectives with local scale fisheries and community acceptance (Alcala & Russ, 2006; Pollnac & Tarsila, 2011; West & Brockington, 2006; White, et al. 2014). With about 1600 MPAs the Philippines are often described as one of the world’s best examples for community-based marine conservation management (Alcala & Russ, 2006; Hind, et al. 2009; Pollnac & Tarsila, 2011).

MPAs are set up with the main objective to protect marine resources by handing over the responsibility of natural resource management to local governments and communities. The decentralization of power and authority from the State to local governments and communities is affecting the way how MPAs are set up, managed and enforced. With the introduction of the Local Government Code municipal and city governments are for the first time authorized to declare and manage MPAs. The establishment of MPAs always takes place through co-management arrangements with other governmental institutions on the local level. Most of these MPAs have a no-take zone or some sort of managed fishing area (White, et al. 2014). Recently the development of MPAs in the Philippines is supporting the ‘scaling up’ of MPAs to establish networks. According to Horigue, et al. (2012) a MPA network is “a group of individual MPAs that are ecologically and socially connected (Horigue, et al. 2012:15)”. In literature network of MPAs is widely recommended because it offers ecological benefits for the marine environment and socially because MPA networks promote collaboration and sharing of information and experience between different stakeholders (Horigue, et al. 2012).

This nationwide development of MPA networks is connected to broader trends within the conservation policy. The Coral Triangle Initiative is a region wide system of MPAs and MPA
networks in six countries: Indonesia, Malaysia, Papua New Guinea, the Solomon Islands, Timor-Leste and the Philippines (White, et al. 2014). In reaction to the fast decreasing state of coastal habitats the Coral Triangle Initiative aims to become a comprehensive and well-managed system of MPAs. Literature highlights that by protecting coastal habitat MPA networks can, when well-designed and managed, meet various coastal conservation efforts (White, et al. 2014). In the Philippine this region-wide development of MPA networks resulted in the endorsement of a National Protected Area System which has as its target to have 10% of all municipal waters to be fully protected by 2020 in a MPA network.

Although there is growing support for the development of MPA, within literature scholars also express their concerns (Hind, 2010; Horigue, et al. 2012; Weeks, et al. 2010). Scaling up of MPAs to establish networks based on the collaborative efforts of communities, municipal governments, and other institution does also imply difficulties in terms of management and governance. According to Horigue, et al. (2012) the establishment of MPA networks are very complex and require an innovative approach to link various institutions involved. MPAs in the Philippines are often initiated by communities without the emphasis on networks. Besides this MPAs are often small (<1 km2) and do not consider the ecological connectivity. Based on these concerns scholars question whether small MPAs have the capacity to contribute to region-wide biodiversity conservation (Horigue, et al. 2012; Weeks, et al. 2010). As a result various scholars argue that the expansion of MPAs into MPA networks involves adding more personal and a clear division in terms of management (Junio-Menez, et al. 2007 in Horigue, et al. 2012). Besides this, Chua (2006) encountered problems in governance due to changing political figures and emphasizes that the management of MPAs should be institutionalized locally. According to Chua (2006) members of committees should have clear roles and responsibilities in the enforcement, monitoring and other management activities of the MPA.

The ongoing struggles within literature indicate that the current development of global and national conservation policies towards MPA networks also have its downsides. Although decentralization and the devolution of power and authority from a centralized state to local governments is encouraging community participation in marine conservation, in reality only few MPAs are well managed and implemented. Studies indicate that nationwide only 30% of the MPAs in the Philippines are well managed (Maypa, et al. 2012 in White, et al. 2014). MPAs, are not the only approach to conservation. Alternative Livelihood Programs are another approach to marine conservation in the Philippines.
3.4 Alternative Livelihood Programs

Alternative Livelihood Programs are another example of community-based natural resource management. Similar to MPAs Alternative Livelihood Programs are designed for the implementation at local level. The approach to marine conservation has two main goals. On the one hand it seeks to prevent exploitation of marine resources, on the other it aims to alleviate poverty by supporting the economic needs of communities (Cagalanan, 2013). This indicates that the program can also be referred to as an integrated conservation and development project. The next paragraphs discuss the Alternative Livelihood Approach more in detail.

Alternative Livelihood Programs are poorly defined. In general they can be understood to be an approach to conservation “by substituting a livelihood strategy that is of harm to a biodiversity target, for one that has a more positive impact (Roe, et al. 2014:2)” . The aim of this approach is to decrease the locally driven threats to biodiversity. Literature describes different ways to achieve this. The first approach aims to provide an alternative resource over the one that is exploited (Roe, et al. 2014). For example, instead of hunting bush meat as a main source of protein, encouraging communities to farm cane rats (Roe, et al. 2014). Another approach is to provide an alternative occupation or sources of income in order to reduce the need to exploit the biodiversity target. Some of the most common alternative occupation include; craft making and butterfly farming (Roe, et al. 2014). This research is embedded within this second approach and takes a close look at seaweed farming as an alternative to fishing and the overexploitation of marine resources. The third approach is encouraging people to use other methods of exploiting resources which have a lower impact than the original method (Roe, et al. 2014). The three approaches share one common objective: “to provide an alternative means of making a living that reduces the pressure on exploited resources (Roe, et al. 2014:2)”.

Within the marine conservation community Alternative Livelihood Programs are promoted to reduce the dependency of communities on marine resources as a main source of food and income (Hill, et al. 2012). According to Roe´s, et al. (2014) second approach this is how fishing communities will replace fishing for more lucrative alternative occupations if they are available. Although this approach has become increasingly popular in the Philippines and resulted in numerous seaweed plantations, alternative livelihood projects have also been subject to criticism. According to various studies the Alternative Livelihood Approach ignores that communities often pursue multiple occupations (Allison & Ellis, 2001; Barrett, et al. 2001 in Hill, et al. 2012). Moreover Pollnac, et al. (2001) argue that communities fish for economic and non-economic purposes and continue fishing even with alternative occupations available. At the
same time, however, seaweed farming has various advantages for communities. Start-up costs are low and sea weed farming can be very cost effective (Hill, et al. 2012). In addition there is a growing market demand for seaweed on local and global level.

In terms of community participation this research highlights that Alternative Livelihood Programs differ from MPAs. Although both approaches are set up with the idea to decentralize responsibilities from the State to local governments and communities, they differ in terms of management and implementation. Whereas MPAs are established by local institutions and government-based, Alternative Livelihood Programs are set up, managed and implemented by people from the community. Literature highlights that projects that favor such a sense of ownership provide benefits for the success of it (Butterfoss, 2006; Kyamusugulwa, 2013). Ownership means to have control over the project. This is stimulating the commitment of people to successfully implement the project (Hannah, 2006 in Kyamusugulwa, 2013). According to Kyamusugulwa (2013) this sense of ownership has a positive effect on involving people in decision-making and project implementation and is providing a choice to the people in designing and implementing a project.
4. Santa Lucia

The two barangays of Santa Lucia and Bulacan form the case studies of this research. Both places have been influenced by the conservation discourse on national level and are examples of community-based marine conservation. Although both barangays emphasize community involvement in marine conservation, in terms of community participation they differ from each other. This means that although both places support active forms of community participation in marine conservation, we have to reconsider the conceptualization of community in community-based conservation. The next two chapters discuss the contextual background of the barangays and the type of approach that is used to conserve marine resources. The main focus is on community participation in marine conservation. This is how this research goes beyond the simplistic and static conceptualization of the term community and shows who is actually participating in marine conservation activities and how.

4.1. Singing karaoke, playing pool and grilling sausages

It’s five o’clock in the afternoon. Five men are playing pool in the shade of a bamboo hut and drinking Emperador. Kids are running around on the basketball court and the smell of burned meat fills the air. Mila is grilling sausages, in the meantime holding back her little daughter who wants to chase a balloon. JoJo is passing by on his motorbike, avoiding the balloon. He stops at his house to unload the groceries he had brought from town for his little SariSari store. A trained voice of a young girl singing a Philippine song is coming through the speakers of a karaoke machine. The enjoyable atmosphere of the late afternoon is attracting people to be outside (fieldnotes, 10-02-2014).

Santa Lucia is a small barangay with a little more than 500 inhabitants situated along Sogod Bay on the Western side of Panaon Island. The center of the village is situated on the top of a small hill. The barangay is characterized by hundreds of coconut trees covering the sloping hills towards the beach. At the beach there is a blue colored cemented building. The construction was supposed to become a dive resort, but never obtained its second floor. Since 2007 the building serves as the expedition site of Coral Cay Conservation, an international NGO which is conducting marine surveys within Sogod Bay. At the beach there are several small bankas pulled up into the shade of the first coconut trees.
Santa Lucia is connected with the rest of Panaon Island by an unpaved road, which is often flooded in rainy season. Besides a couple habal-habal drivers there are no other vehicles driving around in the barangay. Only once every few weeks a white truck is loaded with copra and brought to the market in Sogod. Copra is one of the main sources of income in the barangay. Besides the copra industry people living in Santa Lucia earn an income with small honoraria, which they receive as deputies of the barangay, for example barangay captain, chairmen, barangay tanod, bantay dagat or day care worker. The majority of people spend their daily activities with other occupations. While women are firstly housewives and have secondary occupations such as gardening, livestock raising and retail, men do the more manual work. The main occupation for men is fishing and farming root crops such as yucca and kamote. Due to the mountainous topography Santa Lucia doesn´t have rice fields. Only a couple of farmers own rice paddies in the neighboring towns. Farming and fishing is done mainly for their own consumption. When vegetables or fish are sold this is amongst family, friends and neighbors. According to informants one of the main sources of income are remittances. A great majority of household receives money from their children living in the cities of Cebu and Manila or abroad. With the money they receive they go to the market in San Francisco on Saturdays. There they buy vegetables and rice. Meat is eaten on celebration days only and a rarity in the village.

The people living in Santa Lucia belong to the ethnic group of the Visayan. The Visayan are an ethnic group whose members share great extent of cultural, historical and linguistic affinities stretching across islands within the Visayan Sea (Rodell, 2002). According to Eder (2009) movement still is major theme in the culture of Visayan people (Eder, 2009). Their migration can be explained by high population densities, lack of economic opportunities, political unrest and ecological decline. Also a great majority of people in Santa Lucia has lived elsewhere for several years. According to JoJo their migration can be explained by the lack of economic opportunities: “When I was 18 years old I decided to go to Manila to find work. At that time my oldest son was one year old and my wife was pregnant. I couldn´t make an income in Santa Lucia and had to go to the city to find work and look after my family. I started as a construction worker; later I worked in a restaurant. I lived there more than 12 years. Most of that time I was working as a traffic man regulating cars during rush hours (JoJo Bautista, 15-02-2014)”. Besides the lack of work opportunities the people of Santa Lucia face other problems in the barangay.
In the picture above barangay captain Leonardo Rizal is presenting the three main problems encountered in the barangay of Santa Lucia. The main problem identified is the poor profile of the road, which people perceive to be the main cause for the seclusion of their barangay. During heavy rains the river next to the road can overflow and cause damage on the road and some private properties. This causes habal-habal drivers to have difficulties bringing their passengers to town, and high school students to be late for their classes. In case of an emergency informants indicate that the bad condition of the road is the reason why the ambulance is delayed. Besides this informants say that there is an increased chance for vehicle accidents. The second problem identified is the lack of medical assistance. According to Mila, who works at the day care center, two of her pupils are considered to be malnourished. Since the barangay has been visited by a Swiss Foundation\textsuperscript{14} on a medical mission health conditions have improved, particularly among children. The foundation pays medical care for registered children up to 10 years old. However, better equipped hospitals are all some distance away.

\textsuperscript{14} Swiss Aid had a medical mission in Santa Lucia some years ago.
Besides the lack of medical facilities, people identified severe weather conditions and the occurrence of natural hazards like typhoons, earthquakes and landslides as the third major problem in their barangay. Typhoons can cause electricity blackouts and an increase in food and gasoline prices. Besides this, every year during *Habagat* fishermen are restricted in their fishing habits and cannot go fishing, sometimes up to two weeks. As participants indicated during the second community workshop there are other threats to the marine environment, which exert increasing pressure on marine resources. Besides weather conditions and natural hazards, human induced climate change, pollution and overfishing, particularly by commercial vessels pose a threat to the marine environment. This is why, to protect their marine resources from further degradation, the barangay of Santa Lucia established a Marine Protected Area. The next paragraphs discusses this type of approach to marine conservation more in detail.

**4.2 “The MPA is providing us with food and income”**

In Santa Lucia the approach used to marine conservation is based on a Marine Protected Area. It was established in 1997 in corporation with the *barangay council* and other municipal and provincial institutions. The MPA has two objectives. First off all, it was established with the goal to conserve and protect marine resources by declaring five hectares as a no-take zone for fishing and *cleaning* of seashells. Second of all, the MPA has been set up to be officially allowed to ask divers for a divers’ fee. This is how the MPA provides the barangay with an additional source of income. The MPA is located in a small bay, right next to the beach in front of the building of Coral Cay Conservation. As indicated on the map there are five marker buoys, two of them with little red-and-white

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15 Quotation derived from qualitative interview, Joseph de la Cruz, 25-02-2014.
colored flags indicating the boundaries of the MPA and the passage to the buffer zone. The shoreline of the MPA is characterized by big rounded rocks and old pieces of sharp coral. Towards the most southern point of the MPA a small guard made of cement is overviewing the MPA.

“How can we make money?”

The sun is on its highest point above the horizon. It is midday and a tender breeze is making the coconut trees hiss gently. Three diving boats are attached to the marker buoys of the MPA and are slowly moving in the waves. The turquoise, crystal clear water makes it easy to catch a glimpse of the coral formations right below the surface of the diving boats. A man with a woolen hat flapped over the top of his ears is making his way in a small wooden banka towards the boats. On his return he shows me the 2700 Pesos, which equals 45 Euros. “This is the divers’ fee I collected from the boat captains (TinTin Munez, 21-02-2014)”. When I ask TinTin why the MPA has been established he says: “In the early 1990s we were frequently visited by divers from the other side of Sogod Bay. The divers never came on shore, but they were diving in our waters. The question was; how can we make a money from them? We decided to establish the MPA. Now we are officially allowed to ask them for a divers’ fee and I am the bantay dagat who collects it (TinTin Munez, 21-02-2014)”.

Similar to this illustration a great majority of informants indicates that one of the main drives to set up the MPA was for financial reasons. With the establishment of the MPA the barangay is officially allowed to ask for a diver’s fee of 100 Pesos17 per person, per dive. Known as one of the most popular dive sites in the province, this is how the barangay is able to collect an average of 200,000 Pesos18 yearly. It is not clear, however, on whose initiative the MPA was established. Whereas some informants say the idea for the MPA derives from people in the barangay, others indicate that the MPA has been introduced by higher governmental officials and originates from a national order to have 10 % of the municipal waters protected.

16 Quotation dervied from semi-structured interview with TinTin Munez, 21-02-2014.
17 1.65 Euros.
18 3346 Euros.
Although many informants perceive the financial aspects of the MPA to be its main purpose, some people mention a second objective. In their eyes the MPA has been set up in reaction to the alarming decrease of fish in the Philippines. According to them the MPA has as its main purpose to introduce sustainable fishing techniques and conserve marine resources. Particularly they mention the advantage of the MPA to guarantee future generations with an increase in fish catch. Emma for example shows me proudly the reef ranger certification\textsuperscript{19} of her oldest son and tells me enthusiastically about his snorkel trip and what he has learned about protecting the marine environment. She says: \textit{“It is good to have the MPA. My husband is bantay dagat and earns a small income from the divers’ fee. With the MPA our children will have more fish in the future. All we have to do is respect the rules and be patient for the small fish to grow (Emma García, 18-02-2014)". These examples demonstrate how the MPA in Santa Lucia is based on dual perspectives; by providing a healthy marine ecosystem and an increase in fish catch for future generation, it is simultaneously serving as an important tool to make the dive tourism flourish and develop the region.}

\textit{“It is the barangay council who is in charge\textsuperscript{20}”}

As has been explained in detail in chapter 3.3 MPAs in the Philippines have been introduced to support active forms of community participation in marine conservation. Also the management and enforcement system of the MPA in Santa Lucia goes along the lines of the national policy to hand over the responsibility for managing natural resources to local governments and communities. Instead of reaching the level of the community, however, the MPA in Santa Lucia is completely government-based. In other words, although promoted as a community-based approach to marine conservation, in reality the MPA doesn’t provide everyone from the community with the opportunity to participate. To reveal community participation in marine conservation the following paragraphs will focus on the management and enforcement system of the MPA in Santa Lucia. By doing so we get a first glance on who is officially in charge and participating in marine conservation. Actors on different levels are involved in the management and enforcement system of the MPA.

\textsuperscript{19} Coral Cay Conservation has a Reef Ranger Program where high school students are invited to come to the expedition site to learn more about marine ecology and the importance to conserve marine resources.

\textsuperscript{20} Quotation derived from the Municipal Head of Agriculture and Fisheries, Bunlod Sequires, 23-02-2014.
The diagram above portrays the organizational structure of the MPA on municipal level. The Department of Agriculture and Fisheries is responsible for the enforcement of the Municipal Ordinance-guidelines, which includes the supervision of MPAs. To manage and enforce these guidelines the Department of Agriculture and Fisheries has a council, a committee, and a team. Their council is called the Municipal Fisheries and Agriculture Resource Management Council (MFARMC). It is in charge of municipal marine resources as a whole. To enforce the laws related to the Municipal Ordinance the municipality has the Municipal Fisheries Law Enforcement Team (MFLET). The Marine Protected Area Oversight Committee (MPACC) is responsible for the management of MPAs. The committee has as its task to manage the technical and financial aspects of the MPAs in the municipality. In the municipality this committee is inactive, which indicates that the supervision of the MPAs receives little attention from the municipal level.

Municipal officials point at the barangay council to be the institution responsible for the MPA. According to the Municipal Head of Agriculture and Fisheries there has been a national order to pass on the responsibility for MPAs from the municipality to the level of the barangay. This development illustrates how the management and enforcement system of the MPA in Santa Lucia has changed under the national politics of decentralization, which have been explained in detail in chapter 3.3. This means that, while in the past the municipality used to be responsible for controlling natural resources, it is now up to the barangay council to have a well-managed and enforced MPA. The devolution of responsibilities to the barangay council, however, does not automatically guarantee community participation in marine conservation. As will be
discussed in the succeeding paragraphs the barangay council is increasingly challenged to take over the responsibilities and respond to the demands of the community. First off all a brief demonstration of the organization structure of the barangay and how the MPA in Santa Lucia is managed and enforced.

As portrayed in the diagram the barangay council in Santa Lucia has a captain, a secretary, a treasurer and seven chairmen. The seven chairmen are divided into different committees; the committee of (1) women, health and social welfare, (2) health, sanitation and environmental protection, (3) infrastructure, (4) disaster risk reduction management, (5) education, culture and human rights, (6) finance (7) sport and youth development. The chairmen are responsible for attending meetings and trainings according to their committees. Since the elections of last October 2014 the committees are not well-enforced. Twice a year, during public barangay assemblies the barangay council talks to the community about the development plans of the barangay. This open forum is providing people with the opportunity to ask questions and share their concerns. Besides the barangay council, each barangay has a barangay aid. In Santa Lucia the barangay aid consists of the three barangay tanods, four bantay dagats and one daycare worker.
Regarding the management and enforcement system of a MPA, the barangay council has different tasks to fulfill. In Santa Lucia, where more than 200,000 Pesos\(^\text{21}\) have been collected with the divers’ fee last year, one of the main responsibilities is regulating the money. The distribution of the divers’ fee is as follows:

20% is for the salary of the bantay dagats. 40% goes to the barangay council and another 40 belongs to the municipality. The money that goes to the barangay council is divided into 20% for the development of the barangay and 20% for projects related to the MPA. The amount that goes to the municipality will be reinvested in marine environmental projects. For example, the maintenance of the marker buoys or the honorary of the IMFLAT or MFARMC members. As will be explained more in detail in chapter 4.3. the distribution lacks transparency and is a reason for conflict among people in the community.

Besides the regulation of money derived from the divers’ fee, the barangay council is held responsible for training and supervising bantay dagats who are the rule enforcers of the MPA and the collectors of the divers’ fee. Bantay dagats are supposed to guard the MPA 24/7 and report to higher officials in case of illegal types of fishing or other unusual occurrences. They are also tasked to monitor the reef, watch out for crown-of-thorns outbreaks\(^\text{22}\) and keep the area safe and clean. It is also their duty to maintain the marker buoys and make sure nobody is fishing or collecting shells inside the MPA. When it comes to proper enforcement of the MPA people indicate that these rules are often neglected.

All in all this indicates that although the MPA is advertised as a community-based approach to conservation, the management and enforcement system of the MPA is very much determined by the barangay council, who is the main institution in charge. The barangay council, however, according to the image (7): Distribution of the divers’ fee

\(^{21}\) 3346 Euros.

\(^{22}\) Population outbreaks of the coral-eating crown-of-thorns seastar (Acanthaster planci). Outbreak can cause disturbances and severe damage on coral reef. What causes the outbreaks has not yet been resolved (Fabricius, et al. 2010).
does not automatically entail a well representation of the community. This indicates that we have to rethink the term ‘community’ in this community-based approach to conservation and acknowledge the fact that the MPA is not community-, but government based. Based on various examples from the field the following paragraphs portray how community participation in marine conservation is affected by the institution in charge.

4.3 Community Participation in Marine Conservation in Santa Lucia

“Why are divers inside the MPA? They are scaring away the fish”

As has been explained earlier the establishment of the MPA in Santa Lucia is based on dual objectives. By introducing sustainable fishing techniques one of the objectives is to conserve and protect marine resources. In the meantime the MPA is providing a healthy marine ecosystem to make the dive tourism flourish, which represents the financial objective of the MPA. Whether these desired results can be achieved depends on public support from the community (Moote, et al. 1997). The basic premise is that people will support the MPA only “if they have voluntarily associated with it and feel it is generally responsive to their interests (Moote, et al. 1997:878)”. Whether the MPA receives public support from people in the community is discussed in detail in the next paragraphs.

In terms of public support the MPA in Santa Lucia receives contradictory reactions. Although the majority of the informants confirm to support the MPA, they also have their concerns. According to several informants about half of the community does not respect the rules of the MPA. “Some of the people don’t cooperate with the MPA. Although it is declared as a no-take zone some fishermen fish inside the MPA at night or they use other types of illegal fishing. They throw rocks to scare the fish into their nets or fish inside the buffer zone. This is illegal and they are breaking the laws (Mila Salazar, 24-02)”.

There are several reasons why people are not supportive of the MPA. First of some informants indicate that since the establishment of the MPA seventeen years ago they do not experience an increase in fish catch. In other words, they do not perceive personal benefits from the MPA and see the no-take zone as a restriction to their fishing and cleaning grounds. Besides this, the purpose of the MPA to protect a small parcel of sea and coastline to give the marine ecosystem

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23 Quotation derived from qualitative interview with Emma García, 18-02-2014.
time to recover and rehabilitate, has diminished throughout the years. As the following paragraphs demonstrate it are the financial aspects of the MPA that have become a priority.

As explained earlier yearly the barangay is able to collect a great amount of money from the diver fees. With this amount of additional income it is not striking that the majority of informants perceives the financial aspects of the MPA as its main purpose. Jospehh explains: “The fish sanctuary in Santa Lucia has become a commercial sanctuary. It is a commercial sanctuary because it has been set up for commercial diving. If the purpose of the sanctuary was to protect and conserve the marine ecosystem divers would not be allowed to go and dive inside the MPA (Joseph de la Cruz, 25-02-2014)”. Similar to Joseph many informants do not understand why divers are admitted to dive inside the MPA and scare the fish away, whereas they have to respect the rules of the no-take zone.

This association of the MPA with money affairs is a reason for conflict within the community. “Every time during the barangay assembly people ask questions about the divers´ fee. They want to know the exact amount of money that is collected and where the money is invested in. This is why I suggest to increase its transparency. The barangay council should present us a financial statement and show us on paper where the money is going (Ronald Riviera, 15-03-2014)”. The recently elected barangay council acknowledges the lack of transparency and wants to improve this by presenting such a financial statement during the next barangay assembly. They also express their worries because people who break the rules are often absent during barangay assemblies.

Although the MPA receives contradictory reactions, some people also experience benefits from the MPA. Some fishermen do encounter an increase in fish catch and indicate to be supportive for the MPA. Others, particularly educated people like teachers, youth and children refer to the long-term benefits of the MPA and believe that the MPA is providing fish time to recover. Their support for the MPA can be explained by the NGO of Coral Cay Conservation who is giving science lessons in marine ecology to every high school on Panaon Island and taking children out on snorkel excursions. Also women, more often than men indicate to be supportive for the MPA. They mention that the MPA is providing more fish for future generations. All in all these examples demonstrate that, in order to be supportive for the MPA, people have to be the beneficiaries of the MPA. This is also why according to Allegretti, et al. (2012) “public support for MPAs increases when communities believe that they have been involved in decisions that affect their lives [...] and they perceive benefits [...] from MPAs (Allegretti, et al. 2012:21)”. This
quotation highlights that public support also depends on the way people are involved in the decision-making processes of the MPA. This is what will be discussed in the next paragraph.

“Democracy gone wrong”

With the contradictory reactions of the community of Santa Lucia in terms of public support for the MPA it is questionable whether everybody has access and is well represented in the decision-making process of the MPA. The following paragraphs reveal that this has to do with the fact that it is the barangay council, a governmental institution, which is in charge for the MPA. The next paragraphs take a close look on representation, access and decision-making authority in regard to the MPA in Santa Lucia.

As explained in chapter 4.2. it is the barangay council who is responsible for the management and enforcement system of the MPA. The barangay council is a governmental institution and therefore based on the principles of democracy. The members of the barangay council are elected by the people of the community and work for an administration of three years. The last elections were in October 2013. In terms of representation and access this democratic system is supposed to assure that people are well-represented on barangay level. Twice a year people of Santa Lucia are invited to attend a barangay assembly. The barangay assembly is an open forum for people to ask questions and discuss the problems they encounter in their daily lives. Although people indicate to take this opportunity to express their concerns about the MPA, they often to feel unheard. In other words, although the democratic system allows the community to have access to a public forum, they stay subject to the decisions made by their barangay officials. These feelings are reinforced by the mechanisms of contra-partido which are explained in the next paragraph.

Although the barangay council is elected by the people and based on the principles of democracy not all interests of the community are well represented. This is because in Santa Lucia bribing is considered as a normal thing. In relation to the mechanism of contra-partido the result is that members of the barangay council are only representative for the people who voted for them. Orlando explains: “If you are contra-partido, you are of a different political party and the barangay council will not listen to you. But if you vote for the party they will favor you and give you presents (Orlando Manlapaz, 14-02-2014)”. According to Orlando this is why the new administration has exchanged the old and experienced bantay dagats with new ones.

24 Quotation derived from qualitative interview with Orlando Manlapaz, retired teacher, 13-02-2014.
In other words, if the members of the barangay council are sensitive to the mechanism of contra-partido, people who did not vote for them are automatically excluded from the decision-making process. Also within literature some scholars express their concerns due to the existence of political ‘partisanship’ (Legaspi, 2001).

Briefly this means that although the barangay assembly is providing everyone from the community with access to the decision-making process, people from other political parties are not well represented in the barangay council. Although having the authority to comment on decision during barangay assemblies, people are often disappointed because they find little evidence that their opinions have been seriously considered by the barangay council. This is why some informants indicate to stay absent during barangay assemblies, which can be understood as an act of silent resistance. Others like Honesto hesitate to share their ideas. “I don’t share my suggestions with anyone. In the beginning the attitude of the barangay captain was very friendly and approachable, but now he doesn’t talk to me. He only passes by on his motorbike (Honesto Mendoza, 26-02-2014)”.

In summary these examples illustrate that in terms of access, representation and decision-making authority community participation in marine conservation is very much determined by the institution in charge.

“Can we exclude the coastline from the MPA so we can collect shells?”

With their main diet consisting of rice and fish people of Santa Lucia need to catch enough fish to sustain their families with food and income. However, with the increasing pressure on marine resources due to overfishing, pollution and climate change and the perceived restriction of the MPA on their fishing and cleaning grounds the majority of informants does not perceive personal benefits from the MPA. With the amount of fish they catch they can feed their families, but often there is no additional fish to sell. This makes it questionable whether the MPA meets with the needs of the people. According to literature public needs have to be addressed, otherwise there is no support from the community for the decisions made (Allegretti, et al. 2012, Clarke, 2008). To make sure that people are the beneficiaries of conservation literature highlights that there should be a continuous and reciprocal flow of information exchange between the people involved (Allegretti, et al. 2012; Moote, et al 1997). In other words, information exchange is essential because it ascertains that public needs are

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25 Quotation derived from semi-structured interview with Emma García, 18-02-2014.
covered. The next paragraphs take a close look at information exchange as a determinant for community participation in marine conservation.

With the barangay council in charge of the management and enforcement of the MPA they also have the responsibility to inform people about marine conservation and the purpose of the MPA. As the following example illustrates the barangay council doesn’t have the knowledge and expertise to do this, let alone react to the problems and suggestions encountered with the MPA. During the last barangay assembly Emma suggested to exclude the coastline of the MPA from the no-take zone. She recommended that once every six months women should be allowed to go cleaning to remove shells along the shoreline of the MPA. There were various people supporting her idea, but the barangay council did not react to her proposition.

The barangay council has difficulties to react to the concerns and suggestions of the people in the community because they do not have sufficient knowledge and expertise to react to problems encountered with the MPA. Among others, the transition of barangay officials every three years and the lack of workshops and trainings are the reasons why. Former barangay officials indicate that in the past they were invited to go to trainings in cities like Sogod and Tacloban where they learned about marine conservation and how to manage and enforce an MPA. The new administration, however, is not aware of any workshop or training.

To help local governments to improve the management and enforcement system of MPAs the international NGO Coral Cay Conservation has been invited by the provincial government to come to Southern Leyte. Coral Cay Conservation has as its task to empower communities by providing scientific data and technical expertise to facilitate the sustainable use of marine resources (Longhurst, et al. 2012). Coral Cay Conservation is located in Santa Lucia since 2007. One of their activities is to talk to the barangay councils during awareness days and provide them with the necessary expertise to establish and assess MPAs.

Although Coral Cay Conservation has been active in the barangay of Santa Lucia previously, at the moment there is not much done to monitor the MPA. Coral Cay Conservation recognizes the fact that they are not working as close with the community as they potentially should be. “I think to a degree we are close to some people, but generally that’s only to people that do things for us. We don’t do awareness days or an event in the village every month; we very rarely do them in the village. I guess that is bit of a sad thing. Maybe that slipped away during the years (David Smith, 29-01-2014)”. This means that although there should be continuous and reciprocal flow of information between various people and groups, in reality information about
the MPA is lacking. In summary this indicates that with the growing responsibility of the barangay council to conserve natural resources they are increasingly challenged to respond effectively to the demands and needs of the community.

“The members of the barangay council change every three years”

Literature highlights that community participation should be continuous and based on a persistent network of interaction with others (Moote, et al. 1997). As the next illustrations demonstrate in Santa Lucia this network of interactions between people is not as continuous as it is supposed to be. The result is that the management and enforcement system of the MPA is never persistent and public support for the MPA might shift over time. There are several external influences that affect the continuity of community participation in marine conservation.

One of the factors are the changing political figures of the barangay council. With every administration there is the possibility that the new elected officials’ are not well-trained and don’t have the necessary knowledge and expertise to run a well-managed and enforced MPA. In other words, the decentralization of responsibilities from higher institutions to local government’s doesn’t automatically imply that they have the means to manage and enforce MPAs. This is in line with Chua (2006) who points at the changing political figures to be the main cause for problems encountered with marine conservation. According to Chua (2006) MPAs should be institutionalized locally and committees should have clear roles and responsibilities in the enforcement, monitoring and other management activities. In Santa Lucia there is not a clear division of tasks among the different institutions involved. With the Municipal Marine Protected Area Oversight Committee (MPAOC) inactive, the barangay council of Santa Lucia is overwhelmed with responsibilities and doesn’t know how to react to the problems encountered with the MPA. This can rupture the continuity of community participation in marine conservation.

In other words, the continuity of community participation in marine conservation is very much influenced by the institution in charge. This is because the barangay captain is in the position to appoint his barangay aid, including the bantay dagats who are the rule enforces of the MPA. With the last elections the barangay captain decided to replace the old bantay dagats with new and unskilled people who voted for him. The old and experienced bantay dagats, who have

been in charge of controlling the MPA for up to 12 years, lost their jobs. Some informants, particularly those who support the MPA have their concerns. Rhino explains: “The community wants the former bantay dagats to be reelected. There was no need to replace them. That’s why the MPA is not well enforced. The old bantay dagats were already divers; they know how to maintain the buoys and how to keep the MPA clean; the new bantay dagats are unexperienced and don’t know this (Rhino Castro, 26-02-2014)”. To avoid possible practices of contra-partido, literature highlights that transparency and accountability are important features to improve the benefits of a Marine Protected Area (Kyamusugulwa, 2013).

This example illustrate two things in particular. First of all, it shows us how much influence the institution in charge can have on the management and enforcement system of the MPA. Second of all, it shows that we have to reconsider the term community in this community-based approach to marine conservation. MPAs are government-based approaches to marine conservation, which is the reason why people’s concerns and suggestions may be overlooked or even neglected. Chapter six portrays the conceptualization of the term community more in detail and discusses how it can be used as a useful instrument to organize social reality and advocate community-based conservation.
5. Bulacan

As discussed in the previous chapter community participation in marine conservation is influenced by the institution in charge. In the case of Santa Lucia community participation is in many ways affected by the barangay council. Since the responsibilities for the management of marine resources has been handed over to the level of the barangay, the barangay council is overwhelmed with responsibilities and faces difficulties in managing and enforcing the MPA. MPAs, however, are not the only approach to marine conservation. The following chapter demonstrates a different approach to marine conservation, which entails different outcomes in terms of community participation. This chapter discusses the contextual background of the barangay of Bulacan and the type of approach that is used to conserve marine resources. Again the main focus of the chapter is on community participation in marine conservation.

5.1. “Eat, eat, as much as you can"^{27}

It’s 7pm and Jocelyn’s birthday. Jocelyn is standing at her doorstep and welcoming the first visitors. Children are running around in the house and sneaking into the kitchen to get a first glance of the dinner table which is covered with pans, pots and tupperware. The heavy glass lids of the pans can’t retain the delicious smell of freshly cooked food. After an English birthday song everyone is welcome to fill their plates. Some women are seated on the red colored sofa in the living room, others are sitting on plastic chairs. The majority of men is standing whilst enjoying their food. There is not much talking. With a satisfied smile on his face Allan is breaking the silence: “Eat, eat, as much as you can. Tomorrow is an important day; we are going to start building the nipa hut for our seaweed plantation. You will need the strength to carry bamboo and ride the kabao”. People around us break out in laughter. I accept the extra spring rolls Allan is handing over. Within half an hour the pans and plates are empty and people disappear in the darkness of the street (based on field notes, 02-03-2014).

Bulacan is a small barangay of a little more than 800 people situated on the most Northern tip of the province of Southern Leyte. The barangay is divided into five puroks. All puroks except one, which is located on the upper hill of the barangay, are situated along the coastline next to

^{27} Quotation derived from Allan Reyes, based on field notes, 02-03-2014.
the main road. The road is paved and connecting the barangay with the capital city of Tacloban. Besides hourly busses and jeepney’s there is not much traffic on the road. In contrary to Santa Lucia where people rely on a habal-habal driver to go to the market, in Bulacan people have decent access to means of transportation. Besides a stretched out coastline overlooking the Island of San Pedro, the topography of the barangay is mountainous. The elementary school is located on a little hill. Similar as in Santa Lucia high school students have to go to the municipal village for their classes. In the upper part the barangay there is a little river with a tilapia farm and farmland. Some people farm root crops like yucca and kamote, others own rice fields in the lower parts of the barangay. Farming is not the primary means of making an income.

The main occupation for many people is fishing. Depending on the amount of fish they catch, they sell it to their friends and families in the barangay. Some people earn money with employment. People who are educated work as teachers or nurses in neighboring towns, others are carpenters. Work opportunities, however, are limited and likewise as in Santa Lucia the younger generation is leaving the village for better work opportunities in bigger cities or abroad. Although the village has land to farm and decent means of transportation, people indicate to be frustrated about the lack of income. Ramona explains: “My husband is a fisherman. In average he catches one kilo of fish a day. When he comes back from fishing we keep some of the fish for dinner. What is leftover I sell in the village. My husband is also carpenter. People can hire him and we can make some extra money. But there is not much demand for his work (Ramona Verano, 03-03-2014)”.

In terms of livelihood characteristic the people of Bulacan face similar problems as the people living in Santa Lucia. According to informants, the lack of income is a major concern. For many people, particularly those families who have the lowest income in the barangay, fishing is their main occupation. In contrary to Santa Lucia people in Bulacan fish not only for self-consumption, but in order to make an income. This makes them very reliant on marine resources. Depending on the type of fish they earn 80 to 120 Pesos28 per kilo. However, the present state of the marine environment is affecting their fish catch and posing a threat to their livelihoods. Fishermen indicate that with the occurrence of severe weather conditions and natural hazards they can’t go fishing for up to seven days. Situated on the open ocean of the Eastern Pacific Bulacan is often affected by high waves, heavy rainfall and typhoons. During these days it is too dangerous for fishermen to go fishing. They don’t have an income and need

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28 1.30 to 2.00 Euros.
to rely on family and friends for food. In reaction to these problems, more than forty people decided to join Alternative Livelihood Programs. The next chapter discusses this approach to marine conservation in more detail.

5.2 “The seaweed farm will give us a sustainable income”

The approach to marine conservation in Bulacan is based on Alternative Livelihood Programs. In contrary to Santa Lucia, where the MPA has been established in corporation with the barangay council and is government-based, in Bulacan Alternative Livelihood Programs are set up by a non-governmental organization called Ocean-action Resource Center (ORC) in corporation with people form the community. Alternative Livelihood Programs consist of several projects that supplement the livelihood of fishing communities. The program has as its main goal to conserve and protect marine resources by providing people alternative means to make an income. Two projects that have been set up or are in the progress of being established are CoMSCA and seaweed farming. The next paragraphs discuss both projects more in detail and demonstrates how they are established, managed and implemented.

“A marine conservation NGO cannot stand without the support from the community”

“ORC started in 2009 through a network of teachers. It was right after my internship within Coral Cay Conservation when I decided to set up my own marine conservation NGO. I am a teacher myself and wanted to merge my interest in marine conservation with education. That’s why in the beginning I used my network of teachers to set up the MPA. Our focus was on conservation education. We organized summer workshops for kids and coastal activities such as snorkeling in marine sanctuaries, visiting mangroves and beach clean-ups. After a while I started to realize that we had to expand a bit. A marine conservation NGO cannot stand without the support from the community. If the community does not directly benefit from the marine conservation related activities, the NGO will not be successful. That’s when I decided to start with Alternative Livelihood Programs. Alternative Livelihood Programs are not our only approach to marine conservation. I am also working on a teacher’s module, which I want to

29 Quotation derived from field notes, Joselin Pintao, 05-03-2014.
30 Community-managed Savings and Credits Association.
31 Quotation derived from qualitative interview with Joy del Rosario, 12-02-2014.
32 Coral Cay Conservation is providing a scholarship program for Filipino scholars. Filipino students are invited to join the program for up to three months. Students receive science lectures in marine ecology and learn how to sample a reef. Besides this they get their diving certifications. With various students establishing their own marine conservation NGOs the scholarship program has become very successful.
introduce to the public education system. It’s Arlene our community development worker who is working together closely with the people of the community (Joy del Rosario, 12-02-2014)”.

Alternative Livelihood Programs are set up with the intention to actively involve people in marine conservation activities and make them the beneficiaries of marine conservation. According to ORC alternative livelihood projects are the key to marine conservation because they assure that the needs of the people in the community are covered. In their eyes marine conservation related activities\(^\text{33}\) have to meet with the needs of the community to make it work. To do so the first step in the establishment of Alternative Livelihood Programs was the initiation of a Peoples’ Organization. The Peoples’ Organization is the heart of Alternative Livelihood Programs and consists of a group of twelve representatives from the community of Bulacan. With the assistance of ORC the Peoples’ Organization established two alternative livelihood projects. Up until today about 40 people are participating in these projects.

CoMSCA is the first of them and introduced in October 2013. The project is a Community- based Savings and Credits Association and has been set up with the main goal to improve the financial situation of the people of Bulacan. CoMSCA does not only provide the possibility to save money, but by borrowing money people have the opportunity to start small businesses. This is how families who are fully reliant on fish can find an alternative way to earn money. Arlene explains: “When I identified the lack of income as the main problem of the people, I presented them the concept of CoMSCA and how it can help them to save money. Eventually the idea is that people save enough money to start a small income generating project. This gives them a sustainable income (Arlene Baviera, 11-03-2014)”. This example illustrates how CoMSCA provides the financial means and forms the basis for the establishment of other alternative livelihood projects. Seaweed farming is the first communal income generating project of its kind. The 18 participants who join this project use CoMSCA to finance it. Every participant borrowed 3000 Pesos\(^\text{34}\) from CoMSCA. The idea is that with their first harvest in 45 to 60 days they will be able to pay back their depths.

The idea for the seaweed plantation came from Allan Reyes. Originally from San Pedro Island Allan knew about locations that were suitable for seaweed farming. Allan discussed his ideas with ORC and soon the first CoMSCA meeting was organized to inform people about a possible

\(^{33}\) I use the term ‘marine conservation related activities’ because Alternative Livelihood Programs are not direct ways of conserving marine resources. By decreasing the dependency of people on marine resources Alternative Livelihood Programs are providing indirect benefits for the conservation of marine resources.

\(^{34}\) 50.00 Euros
seaweed farm. In consolation with CoMSCA members they decided to go on an expedition to San Pedro to inspect the area for a possible location. In the process of setting up the seaweed farm everyone was given the opportunity to join in, ask questions and share their concerns. Finally they were asked whether they are interested to join the project. Within three weeks time they had built a guard house with toilet and organized a pump boat. One week later they started planting the first seaweed siblings.

“The people are the building blocks of the project”

In terms of management and implementation Alternative Livelihood Programs are set up with the intention to hand over responsibilities for managing natural resources to local governments and communities. However, in contrary to Santa Lucia in Bulacan the management and implementation system is not government-based. People who participate in the management and implementation system of Alternative Livelihood Programs are people from the community. As will be discussed in chapter six this entails different outcomes in terms of community participation. To reveal community participation in marine conservation related activities in Bulacan the next section will take a close look at the management and implementation system of the projects. By doing so we get a first glance on who is officially in charge and participating in the management and implementation system of marine conservation related activities.

It’s Saturday night, 6pm. The floor is covered with woven mats and a light bulb is illuminating the darkness of the night. People are sitting in a circle, facing two boxes. The top one is metallic and locked with three padlocks on each side. The strong voice of Allan is breaking the babble of the crowd. He is asking the first key holder to unlock the box. Roy grasps his necklace and bends forward. The weekly CoMSCA meeting has started (based on field notes, 01-03-2014).

35 Quotation derived from Arlene Baviera, 07-03-2014.
Every Saturday at 6pm fourteen people of different ages come together to save money. The box in the center of the groups is representing the bank. In the first round a little bowl goes around and people are asked to contribute 5 pesos for the social fund. In the second round each participant speaks out loud how much money he or she wants to deposit and hands the amount over to the penny master. The first penny master counts it and passes it on to the second, who does the same. The secretary writes down the amount of savings on a personal piece of paper and makes a stamp for each share\textsuperscript{36}. The majority of participants is able to save five shares every week. Others, particularly those who are fully reliant on fishing as a main source of income are able to deposit one or two shares.

In the third round Allan asks whether there is someone who wants to borrow money. Previously a 20 year old girl lent money to start a little business in the SariSari store of her parents by selling prepaid credits for mobile phones. This time Alfredo wants to borrow 2000 Pesos\textsuperscript{37} to pay the tuition fee of his oldest son. In the following round the group is asked

\textsuperscript{36} One share equals 50 Pesos, 0.80 Euros.
\textsuperscript{37} 33.50 Euros.
whether someone needs financial assistance from the social fund. The social fund serves as emergency money and does not have to be paid back. In the last round Allan requests people to pay back their debts. Borrowed money has to be paid it back within one month, with an extra service charge of 10%. The service charge is distributed equally among the CoMSCa members after 9 months, when the project finishes and the savings are given back to its owners. At the end of every meeting the money is counted out loud by both penny masters and put back in the box. The box is locked by three different key holders and taken home by a fourth person who is the caretaker of the box. One CoMSCA meeting takes about 30 minutes.

The distribution of tasks among CoMSCA members illustrates how, in terms of management and implementation “the people are the building blocks of the project (Arlene Baviera, 07-03-2014)”. Besides Allan who is the person leading the meeting; there is a secretary, three key holders, two penny masters and one person who is the caretaker of the box. In other words, the people have control over the project. Literature highlights that projects that favor such a sense of ownership provide benefits for the success of it, because it strengthens their personal attachment to the project. (Butterfoss, 2006; Kyamusugulwa, 2013). As the following quotation illustrates it is the participants themselves who are responsible for the project, particularly when it comes to the division of tasks and labor: “Today in the meeting we organized the planning of the seaweed farm. Together we decided that I will go to the municipality to ask the BFAR\textsuperscript{38} whether we have to pay taxes for the seaweed farm. In the meantime Marvin, Albert and Roy will go up the mountain to get old bamboo for the nipa hut. Grandma will call her cousin in the neighboring barangay to prepare the roof. I think we can go to San Pedro Island by next week (Allan Reyes, 27-02-2014)”.

5.3 Community Participation in Marine Conservation in Bulacan

“Without CoMSCA the seaweed farm wouldn´t have been possible\textsuperscript{39}”
As explained earlier Alternative Livelihood Programs are set up with the main purpose to provide people with alternative sources of income. In other words, by decreasing the dependency of people on marine resources as a main source of food and income Alternative Livelihood Programs are an indirect way of conserving and protecting marine resources. As in Santa Lucia it depends on public support from the community of Bulacan whether these desired

\textsuperscript{38} Bureau of Fisheries and Aquatic Resources.
\textsuperscript{39} Quotation derived from qualitative interview with Roy Gonzales, 09-03-2014.
results can be achieved. With the people in charge of the management and implantation of the project, it depends on their support whether Alternative Livelihood Programs are successful. Again the basic premise is that participants will only support marine conservation related activities “if they have voluntarily associated with it and feel it is generally responsive to their interests (Moote, et al. 1997:878)”. Whether this is the case in Bulacan will be explained in the next paragraphs.

In terms of public support projects Alternative Livelihood Programs receive a lot of attention and participation. This can be illustrated with the expansion of CoMSCA. With the success stories from the first CoMSCA group more people wanted to become part of the project. Nowadays there are two CoMSCA groups. Together they encompass thirty members. Besides this public support for the projects is reflected in the way how people speak about the project. Alternative Livelihood Programs are the talks of the town and people are very proud to share their experiences. “In the first group we are 14 members and within six months we were able to save 60’000 Pesos$^{40}$. This is a great amount of money. Before CoMSCA it was very difficult to save money. We earn money and then after the weekend it was gone. Unlike today; if we earn money we will save some for the CoMSCA meeting at the end of the week. CoMSCA is very important to us because it forces us to save money (Amelie Valesco, 10-03-2014)”. This illustrates how people voluntarily associate with the project and feel it is responsive to their interests.

There are several explanations why people want to join and support Alternative Livelihood Programs. People are supportive for Alternative Livelihood Programs because they are providing them a choice in designing and implementing the project. This assures that the type of project is responsive to their personal needs. According to literature this is stimulating the commitment of people to successfully manage and implement the project (Hannah, 2006 in Kyamusugulwa, 2013). For example, with the financial means of CoMSCA it is up to people to come up with income-generating projects and decide where they want to invest their money in. While some people invest their savings in personal projects, others have joined the communal seaweed farm. “Without CoMSCA the seaweed farm wouldn’t have been possible. The first thing we needed was money; we needed the money to buy materials and siblings for the seaweed plantation. Now we are hoping for a good harvest (Roy Gonzales, 09-03-2014)”. This

\[40\] 1006 Euros.
means that people support Alternative Livelihood Programs because they feel that they are responsive to their need to find alternative or additional sources of income.

“Everyone from the barangay is encouraged to share their ideas”

Public support for Alternative Livelihood Programs can also be explained in terms of access, representation and decision-making authority. The previous examples illustrate that people who are part of Alternative Livelihood Programs feel that the projects are responsive to their needs. A possible explanation for this is that participants are either well-represented or have direct access to the decision-making process. The next paragraphs take a closer look at Alternative Livelihood Programs in terms of representation, access and decision-making authority.

Within Alternative Livelihood Programs everyone from Bulacan is encouraged to participate. Previous to the introduction of Alternative Livelihood Programs ORC conducted presentations in every purok of the barangay. They did this in corporation with the Peoples’ Organization, which served as an important entry point to the community. The People’s Organization has been set up with the intention to have every one of the community well-represented in Alternative Livelihood Programs. The members of the organization have been chosen on the precondition to be “a picture of the community, including fisher folk, women, farmers and governmental officials (Arlene Baviera, 11-03-2014)”. The Peoples’ Organization, however, does not have the authority to make decisions. It is up to the participants of the projects themselves to intervene and comment on proposed decisions. This guarantees direct access to the decision-making process.

Everyone from the barangay of Bulacan is granted access to Alternative Livelihood Programs; not only to participate in the project, but to contribute directly to the process of establishing, managing and implementing a certain project. This is necessary because without their commitment to participate the projects cannot exist. The people themselves are responsible for the project. During the process of setting up the seaweed farm people were encouraged to attend daily meetings at Allan’s house. Sometimes his porch had to accommodate more than forty people. On the one hand the meetings served as an important tool to spread information, on the other hand they were necessary to discuss and organize the further progress of the project. People were invited to these meetings to share their ideas, questions and concerns.

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41 Quotation derived from qualitative interview with Arlene Baviera, 07-03-2014.
This is how people are given the authority to represent themselves and contribute directly to the decision-making process.

“*What about weather conditions and natural hazards?*”

The previous examples demonstrate how Alternative Livelihood Programs encourage people to participate throughout the process of establishing, managing and implementing a project. This is how participants can assure that the projects respond to their needs and interests. To meet their needs literature highlights that there should be a continuous and reciprocal flow of information exchange between various people involved (Moote, et al. 1997). Information exchange is essential because it ascertains that the projects meet with the needs of the people. The next paragraphs take a closer look at information exchange as a determinant for community participation in marine conservation and discusses information exchange throughout the process of setting up the seaweed farm.

As the following examples demonstrate there is a continuous and reciprocal flow of information between various people throughout the process of setting up alternative livelihood projects. Individuals often exchange information during informal chats on the street or dinner time. Another means of communication are the daily communal meetings organized at Allan’s porch. As explained previously it is during these meetings that participants discuss the current state of the seaweed farm. For example, when Allan had the idea to start a seaweed farm he also came up with the suggestion to go on an expedition to San Pedro Island to inspect the area for a possible location. He knew about earlier attempts and was curious to talk to the people about their previous experiences with seaweed farming. On his return Allan shared the information he received with everyone else who was interested in the project. After a long discussion they concluded that they had to take into account weather conditions and natural hazards in the establishment of the seaweed farm. Besides this ORC suggested to arrange a trained person who could appoint the right location for the seaweed farm and discuss the more technical side of seaweed farming, how to set it up, how to monitor and harvest.

The various people and groups involved in the process of setting up the seaweed farm illustrate how in Bulacan information exchange is based on a reciprocal flow between different individuals and groups. To ascertain community participation there should not only be a

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42 Quotation derived from community meeting at Allan Reyes’ house, 02-03-2013.
reciprocal flow of information, community participation should be continuous and based on a persistent network of interaction with others. This is where the next chapter focusses on.

“**We had to start all over again**”

As has been demonstrated with the case study in Santa Lucia there are various external influences that affect the continuity of community participation in marine conservation. In Santa Lucia the continuity of community participation is very much influenced by the frequent transitions within barangay council and the absence of workshops to provide barangay officials with knowledge and expertise. Also in Bulacan there are several factors that can affect the continuity of community participation in marine conservation. By taking a closer look at the continuity of Alternative Livelihood Programs some of these factors are discussed in the next paragraphs.

Likewise as with the barangay council in Santa Lucia in Bulacan people sometimes have difficulties to manage and implement the projects. For example, although CoMSCA is providing people the opportunity to save money, the amount of money saved might still not be enough to start an income generating project. This is also the reason why the seaweed farm was stranded for a while. Although literature highlights that the start-up costs for a seaweed farm can be very cost-effective (Hill, et al. 2012), people in Bulacan were struggling to find a way to finance the pump boat which was needed to set up and monitor the seaweed farm on San Pedro Island. In the end it was with the financial help of ORC and the BFAR that the pump boat was realized. Besides financial aspects that can affect the continuity of Alternative Livelihood Programs environment-related problems can occur. The first attempt to start the seaweed farm failed because the seaweed was infected with a disease. People who had invested their CoMSCA savings were at risk to not be able to pay back their depths. With the financial support of BFAR people were given the opportunity to start a second attempt. This illustrates how important it is to have other institutions monitoring the project.

Within CoMSCA people also encountered problems with the safety of their savings. Within every CoMSCA group there is one caretaker of the box with money. Every Saturday the caretaker has as its duty to bring the box and take it home after the meeting. In February 2014 the box of the first group contained more than 60’000 Pesos and people started to worry about the safety of their savings. Together with ORC the members of the group decided to escort the caretaker of

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43 Quotation derived from e-mail with Amelie Valesco, 03-05-2014.
44 1006 Euros.
the box home after meetings. These example demonstrate that, whereas in Santa Lucia the barangay council is left alone with the responsibility to manage and monitor the MPA and does not receive advice from external institutions, in Bulacan the alternative livelihood projects are monitored by ORC and the BFAR. This increases the success rate of the projects and makes them less vulnerable to factors that can rupture the continuity of the project.
6. Discussion and Conclusion

As I elaborated in the introduction the aim of this research was to unravel community participation in community-based marine conservation. Community participation is the core concept of community-based conservation. In literature, however, community participation in natural resource management has often been overlooked and neglected (Beierle, 1998; Minter, et al. in press). Participation is often not well understood which is why it remains unclear how communities actually participate in conservation. To reveal community participation in marine conservation this research applied a systematic analysis of participation in two coastal barangays in the Philippines. The two case studies show that although the decentralization movement in the Philippines shifted towards a people-oriented approach to natural resource management, not every community-based approach to conservation does automatically imply community participation.

The systematic analysis to community participation reveals that the term community in community-based conservation doesn’t indicate that everyone in the community is certainly participating in marine conservation. Based on empirical data from the field this is why this research argues that there is a discrepancy between the rhetoric of community-based conservation and how the term community is used in reality. Before discussing the conceptualization of the term community, the next paragraphs portray the main findings of this research in terms of community participation. To do so this research adopted a particular set of participation indicators, discussed in detail in chapter 3.2. The first indicator that will be discussed is public support, followed by access, representation and decision-making authority, information exchange and continuity of participation.

Public Support

In terms of public support for marine conservation the two barangays of Santa Lucia and Bulacan receive contradictory reactions. This is because the two places have a different approach to conservation and people do not perceive both approaches to be responsive to their interest and needs. With their main diet consisting of rice and fish people of both barangays need to catch enough fish to sustain their families with food and income. In Santa Lucia some people indicate that since the establishment of the MPA seventeen years ago they do not experience an increase in fish catch. Others perceive the MPA as a restriction to their fishing and cleaning grounds. Briefly this means that although over the long term the MPA might provide people with fish, this idea has diminished throughout the years. People do not
experience any present time benefits, which is affecting public support for the MPA. The outcome highlight that in order to be supportive people have to be the beneficiaries of marine conservation. This is why according to literature people will support the MPA only if it covers their needs and interests (Allegretti, et al. 2012; Moote, et al. 1997).

Public support is different Bulacan where Alternative Livelihood Programs have been set up with the intention to address the needs of the community by providing them an alternative source of income. CoMSCA and the seaweed farm are projects that have been established to provide people with an alternative source of income. Although this is not a direct way of conserving marine resources, it guarantees that projects meet with the needs of the people. In terms of community participation this is why Alternative Livelihood Programs receive a lot of attention and participation. Also the MPA of Santa Lucia is providing the barangay an additional income. However, in contrast to Bulacan where people have the authority to control the project, in Santa Lucia people are subject to the decisions made by their barangay officials. In summary the two case studies have shown that public interest and needs have to be addressed, otherwise there is no support from the community for the decision made.

**Representation, Access and Decision-making Authority**

In terms of access, representation and decision-making authority the two case studies highlight that community participation in marine conservation is very much determined by the institution in charge. While in Santa Lucia this is the barangay council, a governmental institution, in Bulacan it is the people themselves who run the projects. For Santa Lucia the main finding is that, although the democratic system of the barangay is providing people from the community access, not everyone is well represented within the barangay council. This limits their authority to contribute directly to the decision-making process. However, according to literature community participation in decision-making is essential, because it ensures public support for the implementation of the decisions made (Allegretti, et al 2012; Moote, et al. 1997; Clarke, 2008).

In Bulacan people are given the authority to contribute. For Bulacan the main finding is that ownership and control over the project are stimulating people to successfully manage and implement it. This outcome is supporting Kyamusugulwa’s argument (2013) who highlights that project ownership strengthens their personal attachment to the project, which is needed to have it successfully implemented. Besides this Alternative Livelihood Programs are providing a choice to people in designing and implementing the project. These responsibilities ensure that
the people voluntarily associate with the project and feel that it is responsive to their personal needs (Moote, et al. 1997).

Information Exchange
The two case studies provide evidence that, to ascertain community participation in marine conservation, there should be a continuous and reciprocal flow of information between different individuals and groups. However, information exchange should not be taken for granted. This research shows that in Santa Lucia the devolution of responsibilities to local governments and communities has made it increasingly difficult to have a clear division of roles in the management and enforcement system the MPA. This research reveals that, although the management and enforcement system of the MPA is supposed to be run in corporation with various groups on local level, all responsibilities for the MPA are handed over to the barangay council. The result is that the barangay council is overwhelmed with responsibilities and challenged to respond effectively to the demands of the community.

The barangay council is given the responsibility to manage and implement the MPA, in reality, however, they lack the knowledge and expertise to do so. This is because outside the scopes of the barangay council there are no other individuals or groups providing their assistance to manage and enforce the MPA. This diffusion of responsibilities on local level might be a possible explanation why some scholar argue that communities often fail to successfully implement their devolved responsibilities (Berkes, 2007; Hill, 2002). Information exchange is different in Bulacan where Alternative Livelihood Program are monitored by ORC and BFAR, which provide their advice and assistance in running the projects. According to literature this reciprocal flow of information facilitates the understanding of values, interests and concerns between various individuals and groups, which increases public support for the decision made (Clevo, 2003; Moote, et al. 1997).

Continuity of Participation
To make sure that there is community participation in marine conservation literature highlights that participation should be continuous and based on a persistent network of interactions with others (Moote, et al. 1997). As has been discussed in chapter 4.3 and 5.3 both approaches to marine conservation are vulnerable to disturbances that effect the persistency of community participation. In Santa Lucia the continuity of participation is very much influenced by the frequent transitions within the barangay council. The changes among political figures, together
with the lack of workshops and trainings explains why people do not have the necessary expertise and knowledge to counter the problems related to the MPA. Also Chua (2009) points at the frequent transitions of political figures to be a pitfall for community-based conservation approaches. He suggests that the management of MPAs should be institutionalized locally with clear roles and responsibilities in the enforcement, monitoring and other management activities of the MPA.

Also in Bulacan people have difficulties to manage and implement the projects. They might lack the financial means to set up or continue with a certain project, or have to cope with environmental circumstances like the occurrence of diseases, weather conditions, or natural hazards. In terms of project consistency the main question for Bulacan is whether Alternative Livelihood Programs really are an effective way to conserve marine resources. According to literature communities fish for economic and noneconomic purposes and might continue fishing even with alternative occupations available (Pollnac, et al. 2001). In other words, although Alternative Livelihood Programs are providing people with a source of income, it stays questionable whether this really is an alternative to fishing. According to various studies the Alternative Livelihood Approach ignores that communities often pursue multiple occupations (Allison & Ellis, 2001; Barrett, et al. 2001 in Hill, et al. 2012). From this perspective Alternative Livelihood Programs are not an alternative, but an additional occupation to sustain their livelihoods.

The exploration of community participation in marine conservation has led to several conclusions. First of all this research has shown that in terms of community participation Alternative Livelihood Programs differ from MPAs. Although both approaches are based on the idea to decentralize responsibilities for natural resource management from the State to local governments and communities, they differ in terms of management and implementation. Whereas MPAs are established, managed and implemented by local institutions and government-based, Alternative Livelihood Programs are owned by people from the community. This indicates that, although promoted as a community-based approach to conservation, in reality the MPA in Santa Lucia doesn’t provide people from the community with the opportunity to participate.

The two case studies of Santa Lucia and Bulacan revealed that the term community in community-based conservation doesn’t automatically have to imply that everyone in the community is participating in marine conservation. In other words, despite its theoretical
framing as a fluid and ambiguous concept without a clear definition (Berkes, et al. 2011, de Beer 2012; Hudsen, 2012; Hill Collins, 2010), in reality the term community is used as a static and essentialistic representation of the community. In Santa Lucia the MPA is promoted as a community-based approach to conservation. However, the systematic analysis of community participation has shown that only people related to the barangay council are granted with the opportunity to participate. According to literature people refer to a static representation of the term community, because the concept of community is a socially constructed model (Hill Collins, 2010; Hudson, 2012). People make sense of their surroundings by referring to community as a principle of actual social organization. In this regard the term community can also be used for political purposes (Hill Collins, 2010:10).

From this perspective the MPA of Santa Lucia is promoted as a community-based approaches to marine conservation in order to conform with global policies to marine conservation. In this regard the decentralization movement in the Philippines, which is increasingly entrusting local governments and communities to manage natural resources, can be explained by broader trends within the conservation policy, for example the Coral Triangle Initiative. In summary this means that, although advocated as a community-based approach to conservation, we have to reconsider the term community in community-based approaches to conservation and look carefully on the way how people actually participate in conservation.

This research points at the rhetoric of community-based conservation to be designed to have an impressive or even a persuasive effect on conservation. Thereby the static representation of the term community can serve as a powerful tool to advocate community-based conservation. As has been shown with the case study of Santa Lucia the term community tends to romanticize and stabilize the idea of community when, in fact, not everyone from the community has the opportunity to participate.

This research has demonstrated that by referring to the term community, the conceptualization of community-based conservation leads to the suppression of within-group differences and homogenization of the community. In other words, the conventional understanding of community fails to consider the fluid and multidimensional aspects of the community and the importance to look at the social reality in terms of differences in class, gender, race, age, sexuality and religion (Hudson, 2012; Hill Collins, 2010). This is why this research argues that we have to go beyond the romanticized and static rhetoric of community-based conservation and rethink the reality of community-based conservation.
Although many positive steps towards community-based marine conservation efforts are being taken, more research on community participation in conservation is needed to disrupt the nostalgic notions of community and find out who is actually participate in conserving natural resources and how (Hudson, 2012; Anderson, 2006).
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8. Appendix

Appendix 1

Community Workshop 1: Environmental Problems, Communities Perception on their Relationship with the Environment and Identification of Core Problems,

Date: 05-02-2014

Number of Participants: 42, including fishermen, farmers, women, teachers, barangay officials, bantay dagats, youth, children, CCC staff, members from the Peoples´ Organization

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Activities /mechanic</th>
<th>Methodology</th>
<th>Expected Output</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the relationship between them and their natural environment.</td>
<td>Workshop 1: Let the participants find out their relationship with the natural environment using symbols like water, fish, meat, wood, rice, etc. First let them familiarize with the map. Point out some people to locate the communal institutions (elementary school, church, etc.). Then pick 10 participants and ask them to put the symbols on the right location in the map. <strong>Reporting:</strong> Let them report on their output and realize how they live in interaction with their natural surroundings. <strong>Processing:</strong> Give everyone a coin and let them explain where they have their income from. Ask the questions: <em>where do you spend money on? What is from your garden?</em> Ask more questions (why, how, etc.), and let them evaluate. This makes them realize how they depend on the natural resources to sustain their livelihoods.</td>
<td>Participatory Habitat Mapping</td>
<td>Allow the community to identify and analyze their relationship with the natural environment in a creative manner. This technique allows me to identify their perceptions about their natural environment, which is important to understand their relationship with the marine environment.</td>
<td>30 min.</td>
</tr>
<tr>
<td>Let them understand the problems related to the natural environment.</td>
<td>Workshop 2: Let the participants identify the problems they encounter in relation to their natural environment. Give them 5 minutes time to search an object</td>
<td>Problem Identification</td>
<td>Allow the community to identify the problems they encounter within the natural environment they live in.</td>
<td>30 min.</td>
</tr>
</tbody>
</table>
that symbolizes this problem (or let them draw it on paper). Example: Mobile phone – lack of signal

*Reporting:* Ask the participants to report on their output. (Write them down on manila paper)

*Processing:* Ask questions to find out what exactly the problem is.

<table>
<thead>
<tr>
<th>Let them understand the three main environmental problems of the community.</th>
<th>Workshop 3: Prioritize the identified problems. Give each participant three coins. Ask one by one to vote for the top three problems. Let them count and identify the main problems of the community.</th>
<th><strong>Problem Prioritization &amp; Analysis</strong></th>
<th>Allow the community to identify the main problems they encounter in relation to their natural environment.</th>
<th>15 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let them understand the causes and effects of the three main problems of the community.</td>
<td>Workshop 4: Ask the participants to make three groups. Each group will make a problem tree analysis on Manila paper. The trunk represents the core problem. Then ask the participants to write the causes of the problem in the roots (by asking: why?). The crown represented the effects of the problem (by asking: what?). Example: Landslides</td>
<td><strong>Problem Tree Analysis</strong></td>
<td>The participants will identify the three main problems of their community in relation to their environment and find out what the causes and effects are.</td>
<td>45 min.</td>
</tr>
</tbody>
</table>
Appendix 2

*Community Workshop 2: Marine Environment, Communities Perception on their Relationship with the Marine Environment and Identification of Core Problems*

**Date:** 19-02-2014

**Number of Participants:** 12 (6 men / 6 women), selected based on different types of fishing techniques; hook and line, spear gun, nets, cleaning.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Activities /mechanic</th>
<th>Methodology</th>
<th>Expected Output</th>
<th>Time</th>
</tr>
</thead>
</table>
| Understand the relationship between the community and their marine environment. | **Workshop 1:** First: Let the participants find out their relationship with the marine environment asking them to write in the table the type of 1. fish they fish; 2. the method they use; 3. Gear; 4. Whether in shallow or deep waters; 6. Self-consumption or commercial; 7. Average catch; 8. Price per kg. Second: Then ask the participants to point out on the map of Sogod Bay where they fish.  
**Reporting:** Let them report on their output.  
**Processing:** Ask questions (why, how, etc.), and let them evaluate. This makes them realize on which marine resources they rely to sustain their livelihoods. | Participatory Table / Habitat Mapping | Allow the community to identify and analyze their relationship with the marine environment in a creative manner. This technique allows me to identify the marine resources they rely, what their methods are, what gear they use and where they get them from. | 45 min. |
| Let them understand their problems related to the marine environment. | **Workshop 2:** Let the participants identify the problems they encounter in relation to their marine environment. Let them make a mind map.  
**Reporting:** Ask the participants to report on their output. | Problem Identification / Mind Mapping | Allow the community to identify the problems they encounter within the marine environment. | 45 min. |
| Workshop 3: Prioritize the identified problems. Give each participant three coins. Ask one by one to vote for the top three problems. Let them count and identify the main problems of the community in relation to their marine environment. | Problem Prioritization & Analysis | Allow the community to identify the main problems they encounter in relation to their marine environment. | 15 min. |
| Workshop 4: Ask the participants to make three groups. Each group will make a problem tree analysis on Manila paper. The trunk represents the core problem. Then ask the participants to write the causes of the problem in the roots (by asking: why?). The crown represented the effects of the problem (by asking: what?). Report: Ask one person of the group to report on what they have discussed. Ask question and involve the opinions of the other two groups. | Problem Tree Analysis | The participants will identify the three main problems of their community in relation to their marine environment and find out what the causes and effects are. | 45 min. |
| Workshop 5: Ask the participants to write their opinion about the MPA on one side of a piece of paper, on the other side their suggestion for the future of the MPA. In order to avoid socially desirable answers this is done individually, anonymous and written. | Anonym letters | Identify the perceptions of fishermen and gleaners about the MPA. | 10 min. |
Appendix 3

Image (9): Community Workshop 1, Santa Lucia, 05-02-2014

Image (10): Community Workshop 1, Santa Lucia, 05-02-2014

Image (11): Women cleaning seashells, Santa Lucia, 12-02-2014

Image (12): At the beach, Santa Lucia, 21-02-2014

Image (13): Visiting people at home, Santa Lucia 28-02-2014

Image (14): Qualitative Interview with informants and translator, Santa Lucia 24-02-2014
Image (15): Fisherman selling fish on his motorbike, Bulacan, 03-03-2014

Image (16): Speargun fisherman, Santa Lucia, 21-02-2014

Image (17): Bantay dagat collecting divers fee, Santa Lucia, 23-01-2014

Image (18): Fish catch, Bulacan, 27-02-2014
Image (19): CoMSCA meeting, monitored by ORC, Bulacan, 26-02-2014

Image (20): Me on a kabao, Bulacan, 04-03-2014

Image (21): Cutting a coconut with a machete, Bulacan, 04-03-2014

Image (22): Roy Gonzales collecting old bamboo, Bulacan, 04-03-2014

Image (23): Community meeting at Allan Reyes’ porch, Bulacan, 25-03-2014

Image (24): CoMSCA and seaweed participants, Bulacan, 05-03-2014
Image (25): Joselin Pintao, Bulacan, 05-03-2014