

Atong Kabakhawan

Making Participation Meaningful in Community-Based Mangrove Restoration in Negros Oriental, Philippines



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Executive Summary

This report is the product of three months' applied ethnographic research in community-based mangrove restoration projects in Negros Oriental, Philippines. Community-based environmental management aims to improve environmental and social outcomes through local participation. Yet idealistic thinking about participation rarely matches observed outcomes, where power imbalances and ambivalent social impacts are common. Participation in these settings remains poorly defined, leaving unanswered questions of who participates, in what ways, why, and with what results. In the Philippines, where community participation has long been a core strategy of environmental management, this calls for careful evaluation of participation and its effects on participants. However, evaluations of Filipino coastal conservation have relied on external judgements or proxy indicators to estimate participation, rather than studying the lived experiences and perceptions of participants themselves. This leaves assessments of participation in environmental management imprecise and plagued by assumptions.

This study offers an alternative methodology for assessing participation in community-based projects. Building from participatory techniques and applied anthropology methods, I conducted three months of ethnographic research while working as a practitioner on community-based mangrove restoration projects implemented by Marine Conservation Philippines (MCP) in Negros Oriental. My research asked: *How do project stakeholders experience participation in mangrove projects? What are their goals and expectations of participation, and how can managers better design projects to meet these?* At a broader scale, this report considers the ways that anthropological methods and critical social theory can be useful in environmental management. Taking a 'project ethnography' approach, I studied the range of stakeholders including foreign and Filipino NGO staff, government agency officials, PO members, and unaffiliated mangrove harvesters. I conducted participant observation; participatory elicitation techniques; exploratory and semi-structured ethnographic interviews; and autoethnographic data collection methods. These strategies allowed me to triangulate data, better understand local meanings, identify social patterns, and self-critically assess the ethical implications of community-based efforts. From this data, I produced an ethnographic account of project participation, along with key monitoring tools and project recommendations that can help managers assess participation according to the goals and values of participants themselves.

The first section of this report introduces the importance of mangroves in Filipino ecosystems; the discourse and practice of community-based management and participatory projects; and a theoretical argument for studying participation ethnographically. I describe the local context of the study, including project sites and relevant stakeholders. Part two outlines the research methods used, including ethnographic data collection and analysis. This section also reviews applied anthropology and participatory research techniques in community-based projects, highlighting the methodological and ethical challenges that such research introduces.

In the third section, I discuss preliminary findings in the research process, including perceptions of mangroves, benefits ascribed to mangroves, and primary goals for mangrove projects. I analyze these findings to demonstrate similarities and differences across stakeholder groups. My findings suggest that closer examination of local aesthetic values and expectations of livelihoods may offer untapped opportunities for strengthened community partnerships. I also describe the ways local ecological knowledge impacts projects, particularly when conservationist narratives may conflict with local understandings of the environment.

The following sections of this report comprise an ethnographic analysis of participation, guided by Bisaya phrases that elicit particular local meanings or aspects of social context. Part four considers the phrase “*atong kabakhawan*” (our mangroves) and examines local poetry to consider how a sense of place-based heritage underlies community interest in mangroves. This makes social cohesion (*paghi-usa*) a key goal for community members, but projects have not responded to this local priority. I next explore drivers of participant disengagement through the emotion *ulaw*, which combines shyness and shame, and which often inhibits community members in their interactions with project staff. I note the ways that sexist norms particularly discourage engagement amongst women, and I offer culturally appropriate steps that managers can take to combat this problem.

Section five links these personal responses to social organization, hierarchies, and local expectations of leadership. I demonstrate that various Filipino stakeholders ascribe shared values to good leaders, and that environmental managers are judged in these same terms. I contextualize these within local patron-client norms expressed in the Bisaya phrases *ika alagad* and *pagparayeg*. I link these findings directly to project activities such as workshop facilitation and livelihood projects, explaining how failure to integrate projects into local social structures weakens outcomes. This elucidates the connection between personal, emotional response and wider social organization, and explains some of the mechanisms that influence participant perceptions.

In addition to ethnographic analysis, side boxes throughout this report offer concrete recommendations for incorporating findings into implementation strategy in Negros Oriental. These recommendations range from workshop facilitation strategies, to project design models, to specific project activities or participatory techniques that will better meet participants’ stated project goals. I pair these recommendations with a survey tool, built out of ethnographic data and framed by the words of participants themselves, to help monitor engagement amongst participants. Taken together, the report demonstrates a useful process for pairing practitioner work with participatory ethnographic research. This study models how such an approach can make projects more effective for achieving environmental goals in multi-cultural settings, while more equitably meeting the goals of project participants impacted by management decisions.

Abstract

Community-based management has a long history in the Philippines, where local participation has been a central concern of coastal conservation. Participation, however, is poorly defined and assessments are rarely based on the perceptions of participants themselves. Building on applied anthropology and participatory research techniques, I studied participation through an ethnography of community-based mangrove restoration projects in Negros Oriental, Philippines. Ethnographic research revealed the values, goals, and perceptions of local participants while situating these findings within their broader social context. I use Bisaya language as a guide for analysis, examining key phrases to show how local meanings impact mangrove participation in unexpected ways. From these findings, I make recommendations for applying ethnographic insights to project activities and develop a perception-based monitoring tool to assess participant engagement.

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To Dad, who taught me to walk where I'm not supposed to;

To Mom, who taught me to always ask questions, and seek medical attention when necessary;

To Mphatso, who taught me everything I needed to know about relational economies, and uses them skillfully wherever she happens to be;

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A Walk in the Mangroves

“Our group is sleeping,” a member of the PAPSIMCO Women’s Association told me as we walked into the mangrove forest in Tambobo Bay. The pungent and black mud sucked around our ankles as we bent down towards the soil. We scoured the swamp floor for seedlings of pagatpat and bungalod (*S. alba* and *A. marina*). Crustaceans clicked and popped from the tangles of tree roots as we discussed the state of my companion’s community group and their involvement in mangrove restoration projects. “Our leaders are not active, our members are not participating. And we always need help from MCP. Without MCP, we die. Like, we are not contributing, it is them just keeping us alive.” As I would come to find, these sentiments were common in the PAPSIMCO Women’s Association: a sense of failure and shame, and embarrassed feelings of dependence on the local NGO Marine Conservation Philippines (MCP) even amidst strong gratitude and excitement about the environmental projects underway. I began to wonder if MCP, so impressed with PAPSIMCO’s commitment to the project, was aware of the group’s misgivings.

We paused our search for seedlings to look up at the tall bakhaw trees (*Rhizophora spp.*) surrounding us, their canopied roots arching well overhead. One PAPSIMCO member pointed to a tree. “I planted that one with my mother, maybe it was thirty years ago” she said. Evelyn, a particularly passionate mangrove advocate, looked at me curiously. “But Ben, why do they care so much about just this tree? There are so many mangroves, but they like this one tree! I’m like, oh my god, why?” She laughed and walked on. PAPSIMCO has been planting mangroves, almost exclusively *Rhizophora*, since the late 1970’s. After decades of off-and-on participation in projects run by the Department of Environment and Natural Resources (DENR), the group became discouraged and disinterested. Though some trees had survived, like the large patch we walked in now, most of the planted trees had died within a few years’ time. Group members felt that government agency officials did not really care about them, instead just coming to direct a new project and then leaving again. This combination of poor results and empty relationships, people told me, is why the group frayed and found itself “sleeping.”

Now, PAPSIMCO is beginning to feel re-energized. MCP has reignited mangrove efforts in Tambobo Bay, this time with a set of ecological theories to explain past failures and a new, longer-term, multispecies planting strategy designed to avoid similar results in the future. MCP

and PAPSIMCO have worked together to build a mangrove nursery, and the NGO has provided resources to support livelihood projects including bee-keeping and soap-making. In the long term, the group harbors dreams of ecotourism including guided tours and a community-run restaurant amongst the trees. Though none of these economic activities have brought in income yet, all sides feel optimistic about what may come. And yet, as described above, the project is pocked by lingering doubts. Group members still bemoan PAPSIMCO's lack of engagement, and at times feel significant pessimism about the project's ultimate success. As PAPSIMCO's experience with DENR shows, such reservations can easily lead to a decline in participation and a halt to project activities. For conservationists and environmental managers, understanding these perceptions and their underlying explanations is a crucial component of successful project management. This is true for both pragmatic and ethical reasons, as community interests are core not only to environmental outcomes but also to socially responsible intervention.

During three months in Negros Oriental, the Philippines, I worked as a practitioner on these projects while ethnographically researching the ways and reasons stakeholders participate in community-based mangrove restoration efforts. By studying with NGO staff, government agency officials, Peoples Organization (PO) members, and mangrove resource harvesters with no associational affiliation, I was able to compare and contrast the perceptions of differently positioned stakeholders. I hoped this effort in applied anthropology would not only provide insight into experiences of participants and variable definitions of success, but also suggest practical mechanisms that may better honoring the values that drive those groups most directly impacted by project outcomes. To begin this effort, I first had to follow the very question that Evelyn posed to me that day amongst the *Rhizophora*: Why do people care so much about this tree? Pursuing Evelyn's question led me into the values, social structures, and emotional responses that drive day-to-day experiences of mangrove projects. This paper presents some of those findings, while operationalizing my research to produce actionable tools for project monitoring and implementation.



Part I: Introduction and Background

1.1 Introduction

The protection and restoration of mangrove forests is important for biodiversity conservation, economic livelihoods, and cultural values. These ecosystems provide habitat and nursery functions for a wide range of avian and aquatic species (Hogarth 1999); generate food, fuel, and livelihood opportunities for human populations (Hussain and Badola 2010); provide ecosystem services such as water filtration, storm protection, and carbon storage (Donato et al. 2011; Schaffelke et al. 2005); and are focal points for cultural practices and traditions (Bandaranayake 1998). Yet mangrove forests have been threatened globally by deforestation due in large part to the expansion of both agriculture and aquaculture (Richards and Friess 2016). In the Philippines, mangrove coverage is estimated to have declined from 500,000 ha to 120,000 ha over the last century, while aquaculture ponds now occupy 232,000 ha of the country's coastal habitats (Primavera 2000). Historically, deforestation was a product of industrial timber harvest and government-facilitated conversion to fishponds (Maliao & Polohan 2007). This led to drastic decreases in mangrove coverage, followed by fish stock decline and intensified typhoon damage. These problems spurred significant mangrove protection and restoration efforts throughout the Philippines, beginning in the 1970's and proceeding through a series of community-based efforts led by central government initiatives (Walters 1997). Despite decades of mangrove-focused management, however, these efforts have met varied success (Primavera and Esteban 2008; Primavera et al. 2012). Filipino mangrove restoration projects have had to learn from mistakes not only with respect to the biology and ecology of mangroves, but also the social dynamics that determine successful community-based environmental management (Walters 1997).

Although vital for human and ecosystem wellbeing, mangrove restoration initiatives often fail due to insufficient understanding of the social factors underlying successful projects (Cernea 1996; World Bank 1996). Experts assert that restoration efforts must consider the human dimensions of wetlands degradation and conservation for practical as well as ethical reasons (Aronson et al. 1993; Walters 1997). Restoration practitioners have answered this call with an emphasis on local participation in community-based restoration projects (Agarwal and Gibson 2001; Olsson et al. 2004; Scoones 2015; World Bank 1996), but wetland ecosystems' ambiguous legal status and high economic value make restoration particularly challenging

(Primavera et al. 2012). In this context, researchers argue that participation across a wide range of stakeholders, and especially amongst local community members, improves outcomes by increasing project buy-in and local knowledge of wetland significance (Aheto et al. 2016; Franks and Falconer 1999; GNF 2015; Stone et al. 2008). This has been a key strategy in the Philippines, where long-standing national laws encourage community-based coastal management, and where local participation has been a core component of mangrove restoration design (Primavera et al. 2004; Primavera et al. 2012).

In spite of this, community participation in environmental management remains loosely defined and elusive for monitoring and evaluation (Lawrence 2006; Reed 2008). There is little consensus on what specifically comprises participation or how to measure it. Typologies of participation, such as Arnstein's (1969) "ladder of participation" and subsequent classifications, posit a hierarchy of participation types ranging from manipulation to citizen control. These typologies, however, are prescriptive rather than descriptive, do not accurately predict impacts in participatory projects, and are ill-suited for scientific observation (Lawrence, 2006). In the Philippines, scholars attempting to evaluate participation have similarly struggled to overcome the pitfalls of external value judgements. Studies of Filipino coastal management have either measured "support" as a proxy for participation (Maypa et al. 2012; Walmsley and White 2003), or else have interviewed outside "expert panels" to define a project's level of participation (Pollnac and Seara 2011). These studies rely on indirect evidence and external evaluations of participation, rather than examining the experience of participants themselves. To address this gap and more rigorously measure participation as an aspect of successful mangrove management, my research assesses the qualitative nature of participation by studying the perceptions of participants themselves. This approach to participation asks questions including: *Who participated? In what ways, and at what stages of the project? Why did they participate, and what goals did they have both for the project and for themselves? What power dynamics came into play in the interaction between stakeholders, and how did these manifest in both project activities and perceptions?*

1.2 Local Context

During three months of work as both a project implementer and an ethnographer, I pursued these questions in order to inform project decisions and better respond to the range

of stakeholder interests. From June 1 – August 24, 2018, I worked on projects in Negros Oriental, Philippines, as an intern with Marine Conservation Philippines (MCP). MCP, a non-profit coastal science and conservation organization, strives to “empower, engage, and build local and national capacity to reduce and adapt to [pressures affecting marine ecosystems], aiming for a sustainable future for the Philippine people and environment” (MCP 2018). The NGO is based in the municipality of Zamboanguita and works exclusively in Negros Oriental (Fig. 1). The area is a Bisaya-speaking region, with a dialect similar to but distinct from Cebuano. MCP, though it is highly localized in its efforts, is managed by non-Filipinos of European and U.S. descent, with an almost-entirely foreign conservation staff. At the time of my research, the organization had recently hired the first Filipino conservation staff member in its three-year history, a Bisaya-speaking Filipina woman from a different region.

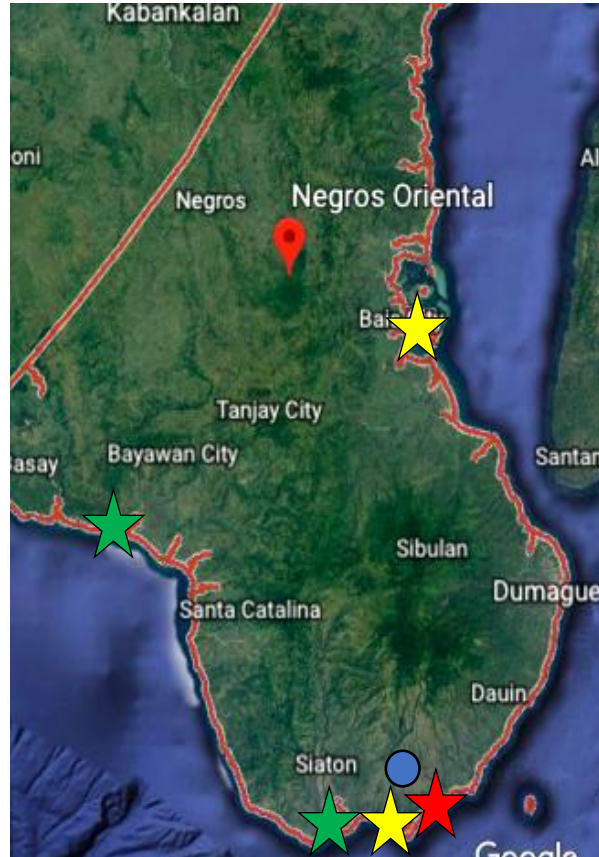


Fig. 1: Map of Negros Oriental province, with stars indicating project and research sites. *Yellow stars*: MCP project sites (Tambobo Bay in the south, Bais Bay in the north); *Red star*: prospective MCP site Lutoban; *Green stars*: current DENR project sites (Pagatban in the north, San Jose in the south). The blue dot represents MCP Headquarters.

As a subset of its coastal conservation efforts, MCP has in the past two years launched community-based mangrove restoration efforts. In my work, this involved regular assistance in MCP’s mangrove project with the PAPSIMCO Women’s Association in Tambobo Bay; less frequent involvement in Bais Bay efforts tied to the Bais Local Government Unit (LGU), Fisherfolk Association, Bantay Dagat (community-based marine enforcement association), and Women’s Association; meetings with DENR and other line agencies in the provincial capital of Dumaguete; and visitations to DENR-managed mangrove restoration sites in the Pagatban area of Bayawan City and in Barangay San Jose. I also worked in Lutoban, a site near MCP’s headquarters that is not currently engaged in conservation projects but that MCP hopes to

partner with in the future. In these contexts, I facilitated workshops, liaised between People's Organizations and government agency officials, established work plan agreements with stakeholders, and supported the ongoing implementation of mangrove restoration in field sites. This array of project sites and activities exposed me to the range of institutional arrangements and project contexts, providing ample opportunities for comparison and triangulation of data.

MCP's mangrove projects contrast with government projects in important and intentional ways. Since the 1970's DENR-led mangrove restoration efforts have often followed a monocropping, plantation-style strategy in which DENR contracts POs to plant *Rhizophora* propagules and pays PO members per tree planted. This model is predicated partly on convenience, as *Rhizophora*

propagules are easy to collect and plant in short-term efforts. However, perhaps due to ecologically improper site locations at the seaward edge, survival has been low for this monocropping strategy (Primavera et al. 2012). MCP has responded with a multi-species, long-term approach informed by the ecological zonation patterns of mangroves (see



Fig 2: An example of how ecological zonation impacts restoration efforts. In the oval, *Rhizophora* species planted at the seaward edge have grown slowly. In contrast, the more recently planted *S. Alba* have grown taller in their natural seaward zone, with higher survival rates.

Fig. 2). MCP's projects match site-specific community goals such as harvest stocks, water filtration, or storm protection to specific species of trees that provide these ecosystem services, and then plant these trees in nurseries. MCP conducts trainings with community members to assess local interests and teach ecological principles that will guide project decisions and local engagement. Rather than paying per tree planted as the DENR does, MCP supports livelihood projects in its partner POs, such as beekeeping and soap-making. After a grow-out period, saplings are planted in the ecological zone that best reflects each respective species' natural distribution pattern. This approach is intended to provide better survival rates

through ecosystem-based management principles, as well as more lasting community engagement in mangrove protection through site-specific goals and iterative participation in trainings and income generating activities. MCP explicitly hopes to influence government agencies to adopt this model, with the ultimate goal that MCP projects will eventually be co-managed by POs and Filipino agencies. The NGO considers this the best way to achieve sustainable environmental and social results in mangrove efforts.

MCP's mangrove projects intentionally address local interests in mangroves and strive for lasting engagement amongst the range of project participants. In this context, rigorous analysis of perceptions and methodological study of participation are essential for monitoring and evaluating project success. And yet, neither MCP nor local government agencies have such monitoring frameworks in place. In my work and research, I sought to address this gap in social impacts monitoring. To that end, my research asked: *How do participants view their own involvement in mangrove projects? Do they feel their goals for mangrove projects are being met? How do participants themselves explain the project and its outcomes?* In asking these questions, I hoped to understand how managers can better meet the expectations of their project partners while taking seriously the ethical implications of working across lines of cultural difference and unequal power relations.

Part II: Methods and Methodology

2.1 Research Methods

Because participation is predicated in the experience of individual participants, these questions required gaining an insider's perspective of projects. This made ethnographic research methods an ideal tool for data collection and analysis. Ethnographic methods are qualitative research techniques designed to elicit insider perspectives, identify social patterns, and access local meanings (Bernard 2002). Ethnography, in both data collection and analysis, is holistic in its recognition of the linkages between seemingly disparate aspects of social life; relativistic in its acceptance of internal, or *emic*, norms and explanations; and particularistic in its attention to the realities of a contained place or group in a specific moment of time. This epistemological framework allows for a robust picture of local social dynamics expressed through the words

and actions of community members, making it a useful tool for the study of participation as experienced by participants themselves.

I conducted this study during three months from June until September 2018, while working for MCP as an intern implementing mangrove restoration projects. I took a “project ethnography” approach (c.f. Evans & Lambert 2008; Mosse 1995; Schuller 2012), using the mangrove project itself as a unit of study and analyzing the perspectives of the range of project stakeholders. This included PO members; government employees at implementation and management levels; conservation NGO staff; and mangrove resource harvesters including fishers, invertebrate gleaners, and harvesters of tungog (*Ceriops tagal*) bark used to flavor local coconut wine. I conducted participant observation with each of these groups, accompanying them in their daily mangrove activities and participating in their mangrove-relevant work (DeWalt 2011). Participant observation allowed me to learn how various project stakeholders experience mangroves and participate in restoration projects. In PO meetings, I supplemented this data through qualitative elicitation techniques including listing and ranking activities, participatory action planning, and SWOT analysis (Guest 2013). These methods, incorporated into project activities and PO meetings, provided data both through the responses of mangrove participants and through observed social dynamics among stakeholders. This, in turn, helped me understand power dynamics between different actor groups and compare the views expressed in different social contexts. Finally, I followed up on these initial results through ethnographic interviews (Bernard 2002). I conducted 45 exploratory interviews, followed by 30 recorded, semi-structured interviews. Recorded interviews were conducted with 4 conservation NGO implementers, 14 PO members engaged in NGO mangrove projects, 1 PO leader interested in initiating mangrove efforts, and 11 government actors working on mangrove projects (see *Appendix B* for interview questions).

In addition to this array of ethnographic approaches, I took advantage of my own role in the project to employ autoethnographic methods. Autoethnography turns the lens of ethnographic data collection and analysis onto the researcher. This examination of the outsider’s experience provides more robust data for the analysis of social patterns, establishes points of comparison for understanding difference, and helps the researcher navigate unequal power relationships that may impact the research process (Abu Lughod 1991; Kondo 1990). In the context of this project, my positionality as a practitioner in community-based mangrove

projects allowed me not only to self-reflexively assess my own role as a researcher and conservation project implementer, but also to more thoroughly explore the experience of practitioners as reflected in my own actions, motivations, perceptions, and assumptions. I also collected autoethnographic data by being interviewed, both by PO members and by NGO practitioners. These various forms of first-hand data were crucial for rigorous analysis of the cultural differences that manifest during project implementation. They also provided a self-critical methodology better equipped to respond to ethical questions that arise amidst the unequal decision-making powers that pervade both research and environmental management.

Taken together, these methods provided ample data to triangulate findings and compare qualitative data. I used stratified sampling for all methods (Trost 1986), with particular emphasis on collecting data amongst community members to address equity concerns and ethical dimensions of research (DeWalt 2011). I analyzed all data inductively using emergent coding techniques (Emerson 2011), followed by thematic coding focused on values of mangroves, goals for project activities, expectations of leadership, and emotional experiences of project activities. I used NVivo 12 to further identify patterns amongst these themes, and used existing ethnographic literature of coastal communities in the Philippines to inform my analysis.

The goal of this project was to not only assess the current state of stakeholder perceptions and the local meanings that influenced these experiences, but to develop project tools and actionable recommendations that will help MCP best meet the expectations of its collaborators while accounting for the particularities of its local context. With those goals in mind, I analyzed data not only in the form of traditional ethnographic interpretation, but also in practically useful applications of my findings. The result is a set of tools that MCP can use in Negros Oriental before and during community-based mangrove restoration efforts. Along with detailed explanation of my findings, I have included text boxes throughout the analysis with recommendations for applying ethnographic findings to specific project activities; as well as a full monitoring survey useful for indicating engagement levels amongst ongoing project partners and identifying potential areas of concern (Appendix C).



2.2 Applied Anthropology and the Study of Participation

The study of participation as a form of governance has a history spanning decades and ranging across social science disciplines. Arnstein's (1969) assessment of urban development programs in the U.S. is amongst the earliest and the most recognized. In a self-consciously provocative maneuver, Arnstein modelled a hierarchy of participation types designed to reflect the degree of power that citizens attain through forms of participation ranging from nonparticipation such as "manipulation;" to tokenism in the form of "consultation;" to the highest form of participation, "citizen power" (1969, p. 217). Arnstein's model and subsequent typologies (c.f. Pretty 1995) are useful in their explicit attention to two interrelated factors of participation: 1) participation may come in many forms, none of which are equal to the others; and 2) each of these forms comes with political implications for both participants and managers. Recognizing these insights, scholars have sought to assess exactly *who* is participating and *how*, and link these findings to outcomes.

In the Philippines, this approach to participation has been applied to coastal conservation projects. Some have studied participation in community-based MPAs by measuring support for MPAs and taking this as a proxy for participation in management (Maypa et al. 2012; Walmsley & White 2003). It seems obvious, however, that stated support and procedural participation do not necessarily correlate. Nor does support suggest the quality of how people participated, nor the distribution of such participation across groups. To address these shortcomings, others have studied community participation in Filipino coastal management through survey or expert elicitation techniques (Maliao & Polohan 2008; Pollnac & Seara 2011; Pomeroy et al. 1997). These strategies explicitly ask about control over resources, roles in decision-making, and access to participation. But, as above, these methods produce quantitative results based on externally-determined questions. While they can offer baselines and comparisons for levels of perceived participation, they cannot assess the nature of that participation, the terms by which participants evaluate their own involvement, or how these interact with local social and political structures.

This provides a clear rationale for ethnographic research, but it also opens the door to more complicated methodological and ethical concerns. If participation in coastal resource governance is a manifestation of local power dynamics, changes in the quality or extent of participation can be a catalyst for local political change. This means that managers working on

participatory projects of any nature, and researchers studying participation, are de facto wading into the murky waters of power, inequality, and change. In most cases, this results in externally-driven change, whether that driver comes from outsiders working as NGO staff, government officials, academic researchers, or combinations of these. Political ecologists and environmental anthropologists have studied the intended and unintended, social and political ramifications these outside actors and their projects bring to communities in a range of local contexts (Blaikie 2006; Haenn 2005; Haenn & Wilk 2006; Li 2007; Mosse 2004; Robbins 2011; Tsing 2005). This body of evidence makes clear that to engage in or analyze participatory efforts is also to make a difference in the lives of participants themselves. If this is the case, any engagement must be intentional, thoughtful, informed, and self-critical. I build here on two ethical frameworks: 1) the precautionary principle, which asserts that uncertain outcomes require actors to pause in order to avoid inflicting harm (c.f. Ibarra et al. 2011); and 2) an ethic of care, which posits personal interactions as the site of ethical change (Gilligan 1993; Larrabee 2016). These philosophies, in the context of community-based coastal management, suggest that my work should not only document participation and assist in meeting NGO goals for community engagement, but should also actively encourage participation in the forms that participants desire.

This conclusion matches that of critical social scientists who have studied participation as both discourse and practice. These scholars note that while the language of participation in conservation projects is egalitarian, further probing reveals expert-centric thinking and a reluctance to cede control to local communities (Campbell 2000; Fairhead & Leach 1995; Haenn 2016). This incomplete commitment to community participation, in turn, exacerbates already significant differences in the power held by local resource users/participants and non-local project managers and scientists, creating ongoing struggles for equitable resource management (Campbell & Vainio-Mattila 2003).

For some writers, participatory techniques themselves represent an escape from this trap. Researchers seeking *praxis*, a theoretical standpoint put into action, developed participatory research tools to use social science methods for personal and social liberation rather than mere data collection (Fals Borda 2007; Freire 2018; Gardner & Lewis 2015). In effect, research became a process of community organizing, and researchers took on advocate or activist roles in the hopes of assisting the communities they studied (Fals Borda 1987; Polgar

1979; Long & Villareal 1994). In this context, the people studied also took part in designing, executing, and interpreting research questions and results. Scholars employing these participatory techniques have seen opportunities not only for new kinds of data collection and analysis, but for outcomes that benefit local stakeholders and natural resources alike (Glaser et al. 2010; Pert et al. 2012; Reed et al. 2008).

My research followed this approach to applied anthropology and participatory research methods, but not without methodological and ethical challenges. My positionality as an outsider, and particularly as a white man from the U.S., embedded historically-constructed power dynamics that certainly shaped my relationships with project stakeholders, the data I was able to collect, and my own biases in data interpretation. My analysis had to account for this positionality, and the power dynamics at play in differential identities. Autoethnography helped me navigate this challenge. Likewise, my methods for analysis had to account for the way that participatory strategies would alter the data collected. Interview questions, for example, were collaboratively designed in coordination with PAPSIMCO members. Community members were able to interview each other, and also interviewed me as part of the data collection process. Likewise, qualitative elicitation techniques such as listing and ranking, SWOT analysis, and participatory action planning were tailored to input from PO members, and these methods were often conducted by group members as a part of project activities. This had a dual effect of making research itself a participatory effort, while changing the types and degree of participation taking place within mangrove restoration itself. Of course, such gambits come with practical challenges for data analysis. Interview questions (see Appendix B) reflected PO members' interests at least as much as my own. I did not, for example, intend to ask interviewees about their goals for life; but this was a subject PO members saw as important, so we pursued it. Interviews themselves were methodologically inconsistent, frequently shifting from semi-structured interviews to full dialogue when the PO member conducting the research began voicing their own opinions about an interviewee's comments.

This is no small matter for rigorous research efforts, but neither is it a death knell for scientifically valid analysis. Research of this nature may not always answer the questions I imagined asking; but it reveals a great deal about local interests and social dynamics- perhaps more than my own, externally-conceived questions ever could. The unpredictable directions that participatory research methods took this study often shed light on the priorities, fears,

emotional responses, and internal relationships that defined the everyday experience of participants who now became researchers of their own experience. Meanwhile, their responses to taking part in these participatory methods suggested avenues for new project strategies. I have sought to analyze my data through this framework, recognizing both the limitations and the unique opportunities of such a multivocal dataset. This, I hope, will allow me to better understand and communicate how MCP can meet the needs and desires of community members, while accounting for local social norms that may often go hidden. I also hope there will be a lesson here, for me and others, about the ways that applied ethnography and critical social theory may positively impact conservation and development efforts, making good on the goals of participation that all project members share.

And yet the question remains: what does participation mean? All project members may share this goal, and may still disagree on who should participate, how, when, and for what reasons. Ethnographic theory suggests that the answer to this question lies with participants themselves. My research, seeking to elicit and understand these meanings, draws on the work of anthropologists, sociologists, and geographers who have viewed their role as one of advocacy. This work seeks to “make a difference” in a dual sense: recognizing and understanding the differences that exist across collaborative mangrove projects; and doing something that responds to and advances the project’s impacts (Barad 2014; Haraway 1997). I draw on the writings of Anna Tsing (2011) to assert that these differences do not threaten collaboration, but rather are fundamental to cross-cultural environmental projects. Understanding and honoring such differences, especially across the entangled lines of nationality and class, can create a more responsible form of management, a “non-imperialist environmentalism” that works against the entrenched inequalities pervading even our best-meaning efforts (Tsing 2011, p. 170).

To that end, my analysis reflects the views across all stakeholder groups in MCP’s mangrove projects. But it is also positioned with particular attention to the standpoints of Bisaya-speaking community members, who are the most numerous and the most directly impacted members of the project but who have the least power in formal decision-making. This is, of course, a partial view and a debatable analytical choice. I therefore proceed cautiously and conscientiously, reminded of the words of anthropologist and advocate Nancy Scheper-Hughes,

who insisted “my analysis must be taken as incomplete and contradictory, as is reality itself” (1993, p. 170). This version of reality, I hope, is one that can make a difference.



Part III: Research Findings and Analysis

Structure of the Analysis

The following report combines ethnographic analysis with practically useful applications. In each thematic section, I have supplemented interpretation of results with boxes outlining concrete recommendations for applying findings to practical project situations. At the end of each section, I provide a set of survey questions addressing the issues discussed in the preceding paragraphs. Appendix C, at the end of this paper, gives the complete questionnaire combining each section’s survey questions. This can be useful for monitoring current engagement in MCP mangrove project sites in Negros Oriental.

3.1 The Value of Mangroves

To explain why people participate in mangrove projects, it was important to first understand their perceptions of mangroves. To that end, my research collaborators and I asked a number of questions eliciting the values and advantages of mangroves: *What are the benefits of mangroves? Why are you part of the mangrove project? What are your goals for mangrove projects?* I asked these questions of PO members, conservation staff, and DENR agency employees. The results of these inquiries revealed significant similarities and differences, both of which may be useful for project strategy moving forward. Importantly, all parties agreed about key benefits including food security, storm protection, and the support of livelihoods. More broadly, my research revealed that all common answers to this question were accepted as valid by all parties. This is an important confirmation of the rationale for restoration projects, and also reflects a generally respectful stance that stakeholders hold for each other’s experience of mangrove forests.

That said, interesting differences did arise, particularly in the priorities ascribed to project goals. Figure 3 demonstrates the common answers to the question, “What are the goals for your mangrove project?” The question was an open one, not limited to a stated number of goals or a pre-defined set of options. In that context, the stated priorities seemed to vary

depending on the position of stakeholders. Coding of participant observation data confirmed that these patterns were consistent outside of interview settings. Figure 3 shows how each stakeholder group answered.

	NGO Staff	DENR Officials	PO Members
Carbon Storage	X		
Water Filtration	X	X	
Storm Protection	X	X	X
Food Security	X	X	X
Livelihoods		X	X
Aesthetic Values			X
Social Cohesion			X

Fig. 3: The priorities that various stakeholder groups ascribed to mangrove project goals.

As this data demonstrates, the largest differences are between NGO staff and PO members, who only prioritize a few of the same mangrove benefits. This reflects at the very least a differential discourse, and perhaps blind spots in collaborative activities. For example, the common priority of livelihoods amongst Filipino participants (PO members and DENR staff, supplemented by exploratory interviews with gleaners) indicates a core value and possible social pattern. NGO staff, mostly non-Filipino, do not share this priority. This is not to say that MCP staff ignores or neglects livelihoods in its projects; to the contrary, livelihood projects are already a component of mangrove restoration. But understanding the nature of this pervasive and prioritized value may help MCP better hone these projects to meet the stakeholder interests evidenced by my research. To that end, I have conducted an in-depth examination of livelihoods in section 5.3.

Of particular note are the priorities only focused on by one stakeholder group: carbon storage for MCP staff; and aesthetic values and social cohesion for PO members. These are values that may be at risk of being overlooked. MCP's strong interest in carbon storage and accompanying finance mechanisms have not yet become part of the framework through which its partners view mangrove efforts. This did not appear to create any problems during my work; but one can imagine a scenario in which this mismatched focus leads to confusion or

disinterest. MCP will want to mind this difference, and perhaps prepare for any foreseeable increased focus on carbon-oriented mangrove services.

NGO staff do not have this problem for the value of aesthetic beauty, a value they all hold as personally important. The notable difference in this category is the way aesthetics are employed in project discourse: for PO members, aesthetics was a project goal whereas NGO staff listed this as merely a personal interest. There may be opportunity here to advance a shared value, but foreign conservationists should be wary of assuming shared interests. Though both MCP staff and PO members care about the beauty of mangroves, they may experience this beauty quite differently. Glossing over these differences may lead to miscommunication or resentment; but recognizing and honoring them may give voice to PO interests in a new and empowering way. In ensuing sections, I will describe in greater detail some of the specific meanings at play when PO members think of their mangroves as beautiful.

Monitoring Indicators

How important are the following goals for your project?	Not Important	Somewhat Important	Neutral	Important	Very Important
More mangroves					
Sequestering Carbon					
Water filtration					
Storm Protection					
Food source					
Soil Erosion					
Livelihoods					
Natural Beauty					
Togetherness (<i>Paghi-usa</i>)					
Please list the three most important of these goals.	1. 2. 3.				

3.2 Local Knowledge

Like aesthetic beauty, knowledge is a realm in which assumptions can easily elide meaningful difference. In my research, I found two ways that conflicting forms of knowledge seemed to affect projects: a broad difference in environmental discourse; and a specific difference involving knowledge about the growth of trees.

Studying a fishing and farming community in southern Mindanao, the anthropologist Maria Mangahas (2004) noted a particular discourse that surrounded natural resources. People would often point to the sea, or to the coconut trees from which they collected *copra* harvests, and declare, “That’s already money” (“*pera na yan.*”). Mangahas, noting the way that coastal resource extraction, economic structures, and social roles combined, found that local norms allowed people to think of their environment as a living, growing bank of sorts. She observed a “discourse that there is bountiful wealth ‘out there,’ substantiated in trees and other resources” (2004, p. 3). Though I could not study communities with Mangahas’ depth or linguistic fluency, I found a similar discourse pervading discussions about natural resources. In particular, I saw local perceptions of coastal resources shaped by a discourse of abundance. People valued where they lived in Siit and Zamboanguita in part because their environment provided them with so much: fruit from trees, materials for building and shelter, harvest products to earn some money, and ample water supply.

Through participant observation with gleaners and fishers, I came to understand this discourse not merely as a dominant environmental narrative, but as a lived daily experience that shapes environmental knowledge. Gleaning for invertebrates one day, a friend told me “this is what we eat when there’s no dinner (*sud-an*) at home.” Another described how she learned to glean with her father, a blind man who would have been unable to support his family without the wealth of seafood available at an arm’s reach in the mangroves. For these coastal inhabitants, the abundance of the ocean is a vital aspect of daily life. Those who have lived in cities express this abundance even more strongly. One man who had spent years living and working in Manila put it this way: “In Manila you have to pay for dailies, like wood and charcoal. Even food. Here, you can just go find it! Easy!” Another man who had lived in cities echoed this sentiment: “Everything’s free here. You have fresh air, you have food from the sea, and you

have trees that bear fruits. You can get food anywhere.” This sense of abundance is a primary frame for understanding the environment, both in discourse and in daily practice.

I do not have direct evidence suggesting that this perception of the environment influences peoples’ responses to MCP. Rather, I offer this finding as an example of how ethnographic thinking can shape our interactions with communities. Perhaps MCP will find more interest, particularly in sites with limited engagement, by acknowledging and building on local discourses of natural resource extraction. One can see how the common conservation narratives of scarcity and loss may not fit Mangahas’ bountiful nature or my own findings of abundance discourse. Instead, a useful starting point for mangrove efforts may be abundance and extraction itself, driving home the point that increasing mangrove forests will be like “money in the bank.” I cringe even as I write this phrase, my own environmental sensibilities making me wary of the financialization of natural resources. But I write it nonetheless, aware that in fishing and gleaning communities in Negros Oriental this link between coastal resources and material wealth informs a different type of environmental knowledge than my own, forged in locally prevalent meanings and experiences.

The abundance discourse offers a broad, somewhat abstract example of the ways that our projects can respond to local environmental knowledge. But differences in meaning, experience, and knowledge can also be quite concrete, with direct impact on mangrove efforts. This was the case in Negros Oriental regarding local knowledge about tree growth. Speaking with a DENR staff member one day, I asked about a set of mangrove seedlings that seemed to me to be growing quite poorly. *Don’t you think those trees are growing slowly?* I asked. “Yes,” he responded with an affirmative nod that struck me as content. Curious, I pressed further: *So, when trees grow slowly like that is it a good or bad thing?* “It’s good! When trees grow slow, they are putting out very strong roots. They will be stronger trees.” I began to ask PO members and gleaners about this, and they confirmed the DENR official’s stance: slow-growing trees put down strong roots. This, I found, is a consistent form of local ecological knowledge in MCP’s mangrove restoration sites in Negros Oriental.

The implications of this finding are clear in Fig. 4, reproduced from Fig. 2 above. Western ecologists and conservationists explain that the slow-growing *Rhizophora* lag because they have been planted in the wrong habitat, without regard for natural zonation patterns. Many

local participants, in contrast, see no problem here: the *Rhizophora* are putting down strong roots, which will aid them as they continue to grow in the intertidal zone. I found significant variability in whether or not Filipino participants believed that this knowledge about trees applies to mangroves. But many do, and it is clear that overlooking this difference may lead to problematic miscommunication later in the project.



Fig. 4: Which trees are growing better, the *S. alba* in the triangle or the *Rhizophora* in the oval? Because of differences in ecological knowledge, it depends who you ask.

Going forward, MCP can address this difference in knowledge in multiple ways. One option is to simply explain why Western ecology offers a better explanation, making the point that the link between slow growth and root strength does not apply in mangroves. My research, however, suggests that this approach may not be useful. I observed trainings where MCP staff, sometimes knowingly and sometimes not, taught information that conflicted with local knowledge or beliefs. In these cases, I learned, PO members did not believe MCP's lessons, instead proceeding as if they agreed with MCP while holding to their own knowledge. These instances threatened MCP's credibility while widening the gap of difference between two groups of collaborators.

Perhaps a more interesting, empowering, and ultimately effective strategy might be to recognize this as an opportunity for knowledge sharing. PO members are, in fact, eager to learn the knowledge that MCP can share, and they listed learning opportunities as one of their favorite aspects of working with MCP. But, even amidst this learning, participants may feel put off by the one-sided nature of these sessions. My efforts to learn about local ecological knowledge without correcting or denying it elicited positive feedback and a stronger sense of mutual collaboration. PO members expressed a preference for this kind of reciprocal learning, evidenced by their increased eagerness to join and continue project activities. They told me

that often, when foreigners assert knowledge it makes them feel shy or ashamed, and ultimately become reluctant to insist on what they know to be true. They feel this particularly with non-Filipino MCP staff and with DENR officials, who they see as somewhat removed authority figures they cannot or should not challenge. MCP trainers should be mindful of this dynamic, and my research indicates that starting with questions that elicit and value local forms of ecological knowledge is an effective solution. Participants felt this improved communication, which they listed as a primary way to overcome the shyness that limits their participation.

What to Do? Local Ecological Knowledge

Respecting local knowledge does not mean abandoning Western ecological principles. Here are some concrete ways that MCP can continue providing useful technical expertise in mangrove restoration while creating space for local knowledge and explanations of the environment:

- **Start with Questions:** MCP's activities are heavy on teaching, but lack space for PO members to assert their own expertise. Workshops can begin by soliciting trainees' knowledge, in the process identifying areas of conflicting knowledge.
- **Use Conflicts for Mutual Learning:** Where disparities do arise between local and MCP knowledge, as in the case of *Rhizophora* tree roots, MCP should consider this a 'teachable moment' for its own staff as well as PO members. These are great opportunities to discuss mangrove knowledge and build trust in the process.

Part IV: Local Meanings and Personal Experience

The preceding discussion of local knowledge and its practical implications in mangrove projects touches on some of the key perceptions, responses, and social patterns that can lead to disengagement: lack of communication; feelings of shyness and shame; a mutual failure to recognize and communicate differences; and reluctance in the face of perceived authority. In the following sections, I will explore all of these in detail, contextualizing my findings within the social organization and local norms of MCPs partner communities. I will introduce each topic with a local phrase, learned during my research, that elucidates the particular cultural context in which MCP's projects take place: *Atong kabakhawan*; *Ulaw*; *Ika alagad*; *Pagparayeg*; and *Panginabuhi*.



4.1 Place and Identity: Atong Kabakhawan (Our Mangroves)

Working with POs in Negros Oriental, I was struck by the grammatical construction they used to describe forests and other environmental features. Rather than the detached “mangroves,” “ocean,” “beach,” or “forest,” PO members used the plural possessive “*atong*” to preface nature: *our* mangroves, *our* ocean, *our* beach, *our* forests. In interviews led by community members, questions about the history of changes in Tambobo Bay were usually translated as changes in “*atong lugar*,” or our place. This may be a common linguistic construction in the area, or even in the Philippines more broadly, and may not reflect the conscious sense of collective ownership that such grammar implies. But it was nonetheless a difference worth pursuing: what was this connection between people and place underlying any conversation about the environment? Was it a simple, unthinking linguistic norm; or did it reflect a particular type of meaning that impacted participants’ experience of environmental work? In what ways were these forests “ours” for the people who claimed them so nonchalantly in daily conversation, and how seriously should we take this framing of common property? Surprisingly, I found answers to these questions in poetry.

Nagbakho Nga Kinaiyahan

By Rose Abejero

Translated by Cesar Ruiz and Ben Siegelman

Upaw na ang kabukiran sa manga
paglaom,
Wala nay kahoy sa kaugmaran sarang
pang makasalimbong.
Mu ulan mu dahili ang iuta paingon sa
kadagatan;
Manga isda naghilak kay wala na silay
kapoyan.

Nature Sobs

By Rose Abejero

Translated by Cesar Ruiz and Ben Siegelman

The mountain ranges are bald of hope,
There are no trees to shield them from
development.
Rains wash the land down into the seas;
The fish cry because they’ve lost their
home.

This is the first stanza of a poem written by Rose Abejero, a long-time member of PAPSIMCO and a frequent leader in community organizations such as school boards and POs. Rose’s poem is notable not just for its imagery of environmental catastrophe, but for the way these descriptions draw on structures of local identity and emotional response. Rose writes not of general degradation, but of Siit specifically. And she, like the fish in her poem, can be brought

to tears by the topic of environmental change. For Rose, as for many of her peers in PAPSIMCO, mangrove restoration is wrapped up in deeply personal experiences and values. Doing work and research in these projects required me to consider senses of place and identity as emotional experiences that suffuse participation in mangrove restoration, and ultimately manifest in project proceedings. To engage community stakeholders and meet local expectations, MCP will have to consider these factors at the core of participant experiences.

Rose Abejero's work is striking for the sense of place that it both evokes and expresses. As she reads her work, Rose makes clear that the mountains and seas she describes are not abstracted environmental types. Sitting in her home, she points to the mountains behind her back yard, the rivers running beside her house, the mangroves and the sea beyond. Other poems describe pollution in Tambobo Bay, or the natural resources that set Siit apart even from neighboring Barangays. When she says "*atong lugar*"- our place- the 'our' refers self-consciously to these points of environmental pride. Rose emphasizes this connection to the local environment through place-based and antiquated language. Words like *makasalimbong* and *modalios-os* (used in the ensuing stanza of the poem) are often described as "deep Bisaya." These words are specific to Negrense dialects of Bisaya, and even Bisaya speakers from other areas will not know their meaning. The power and localized significance of these words became clear to me in the translation process, when Filipinos nearby began commenting on the words in Rose's poems. "Wow," exclaimed one, "that is deep Bisaya!" Said another, "I haven't heard those words since I was a boy. My grandparents spoke like that." When she writes about the environment as an emotional experience, Rose draws on this language of place and heritage to elicit personal connections for her listeners and give voice to a sense of identity she sees as rooted in the very environment she describes. To speak of degradation and restoration, Rose tells us, is to speak specifically of people's multi-generational ties to the environment in question. My research suggests that these linkages are not merely poetic; they are part of the every-day experience of participants working in mangrove projects.

Place-based values that drive environmental engagement are linked to social bonds of family and friendship. As I walked through the Tambobo Bay mangrove forest to collect seedlings with a few PAPSIMCO members one day, one of the group pointed to a tall *rhizophora* tree. "I planted that with my mother," she told me. She said the tree had been planted 30 years

ago, as part of PAPSIMCO's work with DENR pay-for-plant programs. Soon, other group members began pointing out sections of forest that they remembered planting with their parents. For many PAPSIMCO members, mangrove restoration is interwoven in this way with intergenerational family life. Even those who are new to mangrove planting locate childhood and lessons from parents as the origin of their love for nature. Rose herself gained an awareness of mangroves through her parents, albeit not through planting mangroves. Rose's father was blind, and gleaning for mangrove shellfish and collecting *tuba* bark was one of the few livelihood options available to him. Rose used to accompany him in the swamp, and says this is where she learned to love nature. When the shells became smaller and harder to find, she learned to care about protecting the environment; and when an oil spill killed off swaths of mangrove forests in the same bay that fed her as a child, Rose's attention to conservation and restoration became infused with a fiercely personal sentiment.

These kinds of histories, stories of early lessons and confounding loss, pervaded my conversations about mangroves in Tambobo Bay. The mangroves, community elders told me, once extended much farther inland than they do now. One founding member of PAPSIMCO, now 86, captivated current members when she described the previous extent of the forest, which served as shelter in her childhood when World War II bomber planes flew threateningly overhead. Older community members, and even PAPSIMCO members in their 40's, remember this past as an environmental ideal: the sea came up higher, the water was clear, corals were plentiful, and two casts of a net brought up enough fish for a day's-worth of work. In contrast, the oil spill of the late 1970's was a personal and environmental touchstone for many PAPSIMCO members involved in mangrove restoration. Most of these participants were children when the mangroves died off, and their earliest memories of Tambobo Bay are images of treeless mudflats. It was in the wake of this degradation, they say, that they began replanting mangroves. For many PO members, mangrove restoration and protection has been a lifelong effort, an inheritance of stewardship learned from the generations that came before them.

Thinking through these memories anthropologically, and relating them to participant engagement, what stands out are the social values embedded in this collective experience. As Tom Perrault (2018) has written, environmental memory may tell us less about the state of past conditions than they do about present sentiment. Perrault argues that memories like these "may function as a political and ideological resource" available for mobilization, and are

therefore always a “representation of the present” as well as the past (p. 229). Understood this way, collective memory of Tambobo Bay suggests the loss that people feel presently in relation to their environment: loss of livelihoods, loss of control, and loss of a place-based identity they value deeply. The mangrove forest, a massive feature of the seascape and a prime target for human-driven change, becomes a living- and at times dying- representation of these values. Rose Abejero writes of her home: “In Siit, in Siit you are satisfied; There’s the cool air of the seas, the beauty of the beaches/So that, friend, we must unite as one; Don’t let them build factories in our barangay/Pollution, pollution we will surely get; If we stay quiet, our future will be wasted.” (*Sa Siit, sa Siit lang nimo matagamtaman; Ang kabugnaw sa kadagatan, ang kanindot sa kabaybayonan/Busa, higala, kinahanglan kita mag-usa; Ang pabrika dili tugotan kon barangay ta pagatukoran/Polusyon, polusyon ang ato gyung maangkon; Kon kita magpakahilum, kaugmaon ta maanugon.*)

When PAPSIMCO members plant mangroves, they respond to these threats by actively reconstructing place and its emotional significance. This, I believe, is why anxiety over insufficient group motivation can be so emotionally intense. Some interviewees shed tears when describing their frustrations with group commitment to mangrove efforts, or with perceived dysfunction in PAPSIMCO operations. Likewise, one membership meeting became uncomfortable when an outspoken member began crying, saying she was ashamed that PAPSIMCO could not generate more support for mangrove efforts. These moments of emotional expression take on added meaning in light of the memories described above. They also indicate the meaning of Rose’s poetic call to *kinahanglan kita mag-usa*, unite as one. As described in the previous section, social cohesion was a priority goal of mangrove restoration efforts for PO members. This was most often expressed through a phrase similar to the one from Rose’s poem: *paghi-usa*, or togetherness. When asked what they hoped for the future of mangrove projects, PO members described not only increased forest coverage, but a wider social network working on these efforts. As one committed participant put it, “I want, like, that all the members and all the community are really coming with us, helping us. Yeah, the others also can be joining if we are going to do something.”

This sense of joined purpose across the community may be as much about reconstructing the social bonds of place described above as it is about reconstructing forests. Restoring mangroves means protecting one’s own sense of self, both through the shared

connection to Tambobo Bay as an identity marker and the intergenerational value of mangrove stewardship as a response to externally-driven destruction. For some PAPSIMCO members, the stakes are extremely high. If MCP intends to maintain participation, it will have to consider the impacts of these emotional experiences on morale and project expectations. And, if environmental memory is indeed a resource people draw on for motivation and mobilization, MCP can find opportunities to engage these experiences and honor their significance for personal involvement and collective action.



Monitoring Indicators

	Never	Rarely	Sometimes	Often	Always
Do you feel there is togetherness (<i>paghi-usa</i>) in your community?					
When you work on mangrove projects, do other community members join you?					
How often do you plant mangroves with children?					
Are you able to share with others your own experience of mangroves and the environment?					

What to Do? *Place and Identity*

Issues like cultural heritage, childhood memories, and community-wide social cohesion may seem abstract and beyond the scope of conservation projects. But there are simple and effective actions that restoration projects can take to better meet these personal drivers of PO member participation:

- **Multigenerational planting efforts:** Since the time of my research, MCP has already begun this type of activity through collaboration with local schools. My data suggests this strategy will be effective not only for increasing long-term commitment amongst youth, but also for meeting the social and personal goals of adult group members. MCP might add to its efforts by establishing “family” days, in which PO members plant trees with their younger relatives to build community cohesion and call back to the memories that taught PO members a love for nature.
- **Making space for personal expression:** Personal expression helps connect PO members to their environment. Examples of this include Rose’s poetry, the interview in which four generations of mangrove residents gathered around an old woman’s stories of World War II, and night-time singing sessions around a guitar. If projects can make space for exchanges like these, not directly related to the technical aspects of mangrove restoration but central to the emotional and social experiences of participation, MCP will help build community around environmental values in a way that speaks to PO members’ goal of *paghi-usa*.

4.2 Emotional Constructs: *Ulaw* (Shyness and Shame)

Emotions are at once universally experienced and inscrutably personal. Anthropological literature has parsed out the way that emotional response is both individually variable and culturally specific (Lutz and White 1986; Rosaldo 1984a; Rosaldo 1984b). Emotions, though experienced by everyone, may take forms not easily translatable across cultural divides. Such is the case of one particular emotion in the Philippines- *ulaw*- which holds a central role in Filipino social life and comes into play frequently in mangrove restoration efforts.

Ulaw is most commonly translated to mean “shy.” In the first weeks of my work with MCP, I was struck by how frequently I heard Filipinos describe themselves or others as shy. This was usually said in explanation of people’s quiet demeanor, unwillingness to speak up, or even reluctance to respond when I asked questions. “Shy” seemed a clearly appropriate description. But, as I learned with probing, this translation is an incomplete one. *Ulaw*, in fact, is a complex emotional construct that has long been a part of Filipino life and a subject of ethnographic study. Bulatao (1964: 428) described the Tagalog equivalent *hiya* as “a painful

emotion arising from a relationship with an authority figure or with society, inhibiting self-assertion in a situation perceived as dangerous to one's ego." As Negrense mangrove project participants described to me, *ulaw* does not only mean shyness to speak or engage, but also a sense of shame or embarrassment. One feels *ulaw* when meeting a stranger, but also when falling down in public.

The mistranslation of *ulaw's* shame-induced shyness into merely shyness can lead to cross-cultural confusion with far-reaching impacts on everyday interactions. Once, when sitting with a Filipina and an MCP intern, I asked about *ulaw*. The intern, a foreigner from a Western country who had already spent months in the Philippines and had frequently engaged in community-based work, noted that "Filipinos are very quiet people." I asked the Filipina woman if that was true. "Yes," she replied, "around foreigners." And around other Filipinos? "No!" she cried out emphatically, shaking her head and widening her eyes. The MCP intern, drawing a natural conclusion from her set of experiences, had misinterpreted a fundamental social pattern in the communities with which she worked: Filipinos certainly are not quiet, but they may be *ulaw*. And Filipinos feeling *ulaw* around foreigners are not quiet only because they are shy, but because of a sense of shame undergirding this shyness.

Ulaw was a recurring theme in mangrove restoration projects (for a summary of common causes of *ulaw* in mangrove projects, see Fig. 5). Members expressed feeling this embarrassed shyness when working with MCP. Most frequently, this was connected to language barriers when PO members felt uncomfortable with English. "We feel really *ulaw* with foreigners," one man told me, "first because of communication and language."

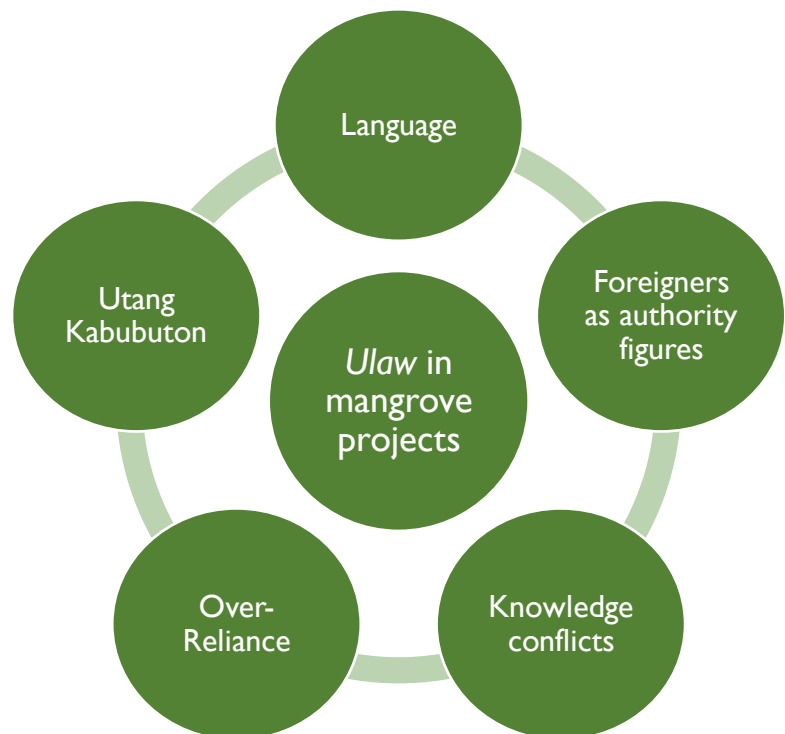


Fig. 5: Common causes of *ulaw* in mangrove projects, as described by PO members and evidenced in research

This language barrier, perhaps obvious in its practical implications, is doubly important for the emotional response it elicits. If MCP can only engage its participants through English, it risks inducing shame and socially restrictive discomfort in every meeting. These emotional responses ease with time and familiarity, but even after prolonged interaction PO members expressed feeling *ulaw* with MCP due to the use of English. This finding suggests that MCP should put more resources and effort into Bisaya programming, striving to conduct all activities in the local language in order to create a setting amenable to local participation.

But *ulaw* with foreigners has a second, more difficult component evident in the response of one interviewee. “Foreigners are good looking, so we feel *ulaw*. They have a long nose and white skin, not like us- that’s how insecure we are.” Though this is just one individual’s sentiments, the example points to the way that *ulaw* expresses not only shyness, but also a broader shame. Such shame extends to the complicated realms of knowledge and power. As described previously, conflicts between local knowledge and the expertise of MCP staff may create uneasy tensions. Feelings of *ulaw* make PO members reluctant to voice contradictory views about mangroves, particularly amidst an English-language training led by a foreigner assumed to have prestige and expertise. Because of the shyness and shame *ulaw* reinforces, non-Filipinos are unlikely to notice these tensions without first being aware of *ulaw* as an emotional construct. All too often, this will reinforce the inequalities and subtle divisions between MCP staff and other project stakeholders. When, for example, an MCP staff member disagreed with a PO’s local mangrove expert about the species of a particular tree, PO members believed the local expert. Feeling *ulaw* towards the foreign MCP staff, however, they did not voice their opinions. They later described that they felt embarrassed to publicly contradict a foreign authority figure, but they now perceived flaws in MCP’s knowledge of their local mangroves. What matters here is not whether the staff member or the local expert was correct. Rather, this episode was significant in showing how a failure to understand *ulaw* leads to a false sense of security in the collaborative bond between NGOs and POs.

In some cases, participants feel the shame of *ulaw* as an intense debt that dampens project success. Recall the tearful PAPSIMCO membership meeting described above. This meeting was, by all accounts, a great success. PAPSIMCO had not organized such active membership in years, and the meeting spurred an influx of new participants and increased interest in mangroves. And yet, the meeting elicited tears from some of those most committed

to PAPSIMCO's "awakening," as they called it. At the crux of this emotional response was *ulaw*, a feeling of shame in the face of ongoing MCP support. "MCP keeps helping, but I fear that members will not participate" explained one member sympathetic to the crying speaker. "We are embarrassed that it is the foreigners who know what's good," said another as she wiped a tear from her own eye. This expression of *ulaw* lays bare the fragile framework of cross-cultural collaboration. Members feel a fear of dependence, and a deep personal debt called *utang kabubuton*, or "debt of the heart" (c.f. Bulatao 1964; Hollnsteiner 1970, discussing the Tagalog equivalent *utang na loob*). Describing this sentiment in the context of fishing communities, Fabinyi (2013) writes *utang kabubuton* is "an enduring, personal debt that cannot be quantified, and is often associated between people of unequal status" (p. 56). This kind of personal debt, unpayable in money, pertains to the Filipino norm of relational economies, in which daily economic ties are entangled with social meanings beyond the financial realm (Bulatao 1964; Fabinyi 2013; Hollnsteiner 1970; Mangahas 2004; Scott & Kerkvliet 1977). Fabinyi notes, and PAPSIMCO members confirm, that the personal debt of *utang kabubuton* is accompanied by *ulaw*. The result is an emotionally conflicted experience of mangrove restoration efforts: participants may feel grateful for MCP's assistance and happy with the organization's style of engagement, but still embarrassed by their reliance on foreign motivation and ashamed that they have not succeeded in maintaining their own ecosystem. These emotions are magnified by the weight of place-based heritage and intergenerational values described above. It is no wonder, then, that tears arose at PAPSIMCO's most active and engaged meeting in years: this externally-coordinated success is precisely when *ulaw* was felt most strongly.

This description may leave readers feeling perplexed and even hopeless. If success will always be accompanied by debts of gratitude and internalized feelings of shame, how can MCP possibly proceed? To some degree, these are unavoidable tensions. They are part of the cultural, social, and personal context of MCP's work. But to work within that context, MCP must first recognize it. Understanding *ulaw* and *utang kabubuton* will help MCP anticipate and mitigate the internal conflicts that participants may feel. As interviewees noted, a focus on Bisaya language, personal communication, and relationship-building will help this process. My own research shows some of the possibilities here: PAPSIMCO members expressed a preference for meetings in Bisaya, and valued participatory research methods such as Action Planning and Listing and Ranking which prioritize local knowledge and make room for internal

decision processes. For participants, this process gave them more control over project activities and outcomes, and in doing so it left them with less feelings of indebtedness to MCP. PO members also noted the importance of building personal relationships with each individual member, which eliminates *ulaw* comprehensively. Creating opportunities for fun and joking is another important step, and calls back to the action box above that suggested non-mangrove, recreational activities like singing and storytelling.

Crucial to this approach is a recognition of the power dynamics at play in *ulaw* and *utang kabubuton* personal debts. While PO members frequently discussed *ulaw* in interviews, professional implementers almost never did. This one-sided response reflects a problematic imbalance between the experience of project participants and the awareness of more powerful actors. Bulatao's (1964) description of *ulaw* in reference to authority figures, and Fabinyi's (2013) discussion of *utang kabubuton* associated with unequal status, are important here. Both writers, and my own data, suggest that the emotional responses, identity structures, and personal experiences outlined in Part Four have been closely tied to hierarchies and perceptions of leadership. To better understand the emotional experiences and personal perceptions of participants, then, we should study the larger social context in which these sentiments form. This requires attention to the particular social organization of leaders and constituents in Negros Oriental communities.



Monitoring Indicators

	Never	Rarely	Sometimes	Often	Always
Are project activities conducted in Bisaya?					
Are you able to communicate with MCP staff?					
Do you feel <i>ulaw</i> with MCP staff?					
When you disagree with MCP, do you say anything to them?					
Are you friends with the MCP staff who you work with?					
Are PO members contributing enough to the project?					

What to Do? Overcoming *Ulaw* and *Utang Kabubuton*

- Bisaya-language events, meetings, and trainings
- Build personal relationships with all group members, and not only leaders or point people
- Participatory project planning and member-led activities
- Structure trainings as knowledge sharing, rather than one-sided teaching
- Increase PO member contributions in order to avoid *utang kabubuton*
- When you identify *ulaw*-caused behavior, the phrase “*Wala ulaw!*” (“Don’t be *ulaw!*”) can spark laughter and open conversation

Topics for Further Study: Sexism in Environmental Management

My research indicated that gender inequality and sexism may contribute both to *ulaw* and to disengagement more generally. Aside from Bantay Dagats (local coastal enforcement associations), the POs I worked and studied with in Negros Oriental were disproportionately comprised of women. Women were not only the majority in number, but they frequently held roles of formal and informal leadership, particularly in environmental projects. Women were PO Presidents, Treasurers, Advisory Board members, respected elders, and key figures for mobilizing group engagement. In meetings, women’s opinions were met with respectful nods from women and men alike. In PO settings, I did not see women spoken over, belittled, or reacting in a way that implied they’d been treated poorly. Based on this evidence, these groups seemed to have relatively gender-egalitarian norms.

The gender norms within POs contrasted sharply with social life outside the associational setting. Away from projects and group meetings, I did see female PO members face lewd jokes, sexual harassment, and disrespectful interruptions. In all-male settings with non-PO members, I saw this behavior exaggerated in jokes about genitalia and sexualized comments about single women. This contrast between daily life and PO settings led me to hypothesize that POs may be settings where women find particular empowerment, equity, and opportunity for civic influence. One woman’s experience joining mangrove projects reflects this powerfully: she joined the project to participate in livelihood activities, because her husband will not allow her to earn an income any other way. My data is limited here because my position as an outsider and as a man made collecting such data difficult. However, even when manifesting

less directly, it seemed to me that the relatively gender-egalitarian norms within POs were one important component of women's participation.

My data is unequivocal about the gender norms of DENR offices in Negros Oriental, in which men occupy most senior positions and sexist jokes are common. These included jokes about genitalia made openly in front of female employees. On multiple occasions, male staff offered me young female DENR employees as romantic objects. These jokes were made in front of the women and their peers. The barriers to research outlined above prevented me from gaining an understanding of how these women felt about such a work environment. When jokes were made, they laughed and indicated no offense; but this reveals little about their perceptions. What is clear to me, nonetheless, is that the sexist norms of DENR offices do not match the more egalitarian dynamic of the POs I studied. This is of primary importance for a project with long-term goals to unite DENR and partner POs in sustained mangrove restoration.

If, as I propose, the jokes and sexist norms in DENR offices reproduce gender inequalities that female PO members face in their daily lives, it likely presents significant barriers for these women's participation. Again, limitations in my data do not allow for conclusive evidence, but my findings warrant serious thought and follow-up study. On the few occasions that I saw DENR officials interact with PO members, the officials expressed sexist jokes and chauvinist norms without pause. It is no great leap between these experiences and the resentment and suspicion that many female PO members expressed when speaking about DENR, even if they did not mention sexism as a complaint.

It was even more clear that sexist norms in government offices impact female MCP staff, and particularly Filipinas who work for the NGO as staff and/or interns. In this case, my research findings are consistent and conclusive: women working as conservation professionals have at times faced belittling jokes, sexual innuendo, and professional disregard while serving as technical experts in meetings with government. They describe having to ignore offensive comments while also demonstrating particular excellence in order to reach these audiences. Like PO members, they are used to this kind of sexism; but they dislike it, and these kinds of hostile settings can induce *ulaw* or disinterest even for professionals.

These findings echo the studies of political ecologists and conservationists concerned with the social outcomes of environmental projects, who have found differential outcomes

between men and women to be a consistent problem in environmental projects (Agarwal 1992; Carney 1993; Elmhirst 2011; Jackson 1993; Nightingale 2006). These researchers remind us that gender, as a fundamental aspect of experience and a component of social outcomes, is *de facto* within the scope of both environmental projects and research. My findings show that this is clearly the case in Negros Oriental, where chauvinist norms may discourage participation amongst the women who drive community participation, be they NGO staff or PO members. This concern is both practical and ethical. It is practical because unpalatable interactions with government agency officials may erode relationships across the project and weaken collaboration, particularly if I am right about the way gender-egalitarian norms encourage women's engagement in POs. It also an ethical concern, because ignoring or permitting these behaviors ultimately reinforces their acceptance and encourages the continued exclusion of women from environmental decision-making.

Gender mattered for MCP's projects in at least one other way. My research with POs showed that household gender roles can prevent some women from engaging in mangrove efforts even when they want to. This occurs when mangrove activities conflict with home duties, and especially with the schedules of mothers. This often prevents younger women from taking part in mangrove projects, and helps explain why nearly all active PAPSIMCO mangrove project members are over the age of 40. MCP can prevent this unintentional gendered exclusion by helping to ensure that project activities fit the schedules of young mothers, or by providing child-oriented programming that allows these women to bring their children along. Doing so will increase the number of participants in projects, while helping to ensure that mangrove efforts engage a wider age range and support multigenerational values as discussed above.

What to Do? Combating Sexism in Community-Based Projects

This is a truly challenging topic, and may seem overwhelming. Here, I offer some strategies that can help MCP use its position to better serve the women who take part in project activities. Many of these strategies build on concepts that will be discussed later in the report- in those cases I've noted the relevant section:

- Above all, be attentive and be mindful. An eye towards gender imbalances goes a long way.
- Solicit feedback early and often, and open the door for conversations about gender whenever possible- even knowing that these conversations will be limited.
- Remember **ulaw**: if women don't speak up, it does not mean there's no problem
- Consider relationships and influence. MCP can leverage its position to set clear norms of engagement for government actors. This strategy builds on **pagparayeg**, the use of relationships-building for personal interest, as a tool (see *Section 5.2*).
- Use humor and informal bonds: self-deprecating humor can make leaders endearing and effective in Negros Oriental (see *Section 5.1*). In my own work, I found that using humor allowed me to twist DENR jokes about women to poke fun at the men making these jokes. I noticed that the women present laughed especially loud when I did this. MCP staff- and especially men- may be able to use humor as a way of shifting sexist conversations towards male self-deprecation, encouraging behavior change without seeming like a "big boss" imposing external norms (*again*, see *Section 5.1*).

Constructions of identity, sense of place, and emotional response do not exist in a vacuum. They are the product of, and a response to, everyday social contexts. As the case of sexism shows, the local manifestations of hierarchies comprise a particularly important social context for personal experience. This is of special concern to environmental managers, who enter project sites as authority figures and therefore must know how to operate within local expectations of hierarchy. A study of participant perceptions and individual response, then, must look just as carefully at the larger social context in which these perceptions form and manifest, and especially the hierarchies that define the roles of project stakeholders.



Part V: Social Organization

5.1 Expectations of Leadership: *Ika Alagad* (How Can I Serve You?)

When a leader sits down with a constituent, she or he opens the conversation with the Bisaya phrase, *Ika alagad?* or “How may I serve you?” The phrase is never used between peers, from a shopkeeper to a customer, or from a servant to an employer; it is only appropriate in the particular and unequal relationship between a leader and a follower. While many noted that this phrase is uncommon in real-life practice, it is an idealized norm that expresses the nuance of local values of leadership. The question is understood as a sign of humility: the leader lowers their status, presenting themselves as a public servant whose power denotes responsibility more than it does privilege. At the same time, this phrase is only appropriate when a pre-established hierarchy is mutually recognized and actively reinforced. Hierarchy in this setting is not merely a set of social relations, but a studied performance. By symbolically inverting the power dynamics of the interaction, *ika alagad* serves as an informal check to encourage good leadership. At the same time, this performance of egalitarian relations renders them impossible. *Ika alagad*, understood this way, offers an entry point into the complexities of discourse, daily practice, and local values embedded in local norms of leadership. Because conservation staff, and especially foreign actors, are seen as authority figures with prestige and power, MCP should consider these intricacies carefully as it navigates its role in community-based projects (Teves 2000).

PAPSIMCO’s ongoing struggles with leadership highlight the way hierarchies can define the experiences of project participants. Despite a small core of highly engaged members in the mangrove project, PAPSIMCO’s elected leaders are often absent, reluctant to take part in activities, and sometimes at odds with membership. The President of the organization openly expresses her desire to step down, but remains President because no other member has been willing to take her place. The Secretary and Treasurer do not attend group meetings. This has led to poor bookkeeping and administrative weaknesses, at times costing PAPSIMCO opportunities to access government support. Members become frustrated with this absenteeism, and take it as a cue that they should not invest time and effort into PAPSIMCO activities. Members are further dissuaded by distrust for even the more active leaders, of whom they suspect fund mismanagement. Leaders, in turn, feel discouraged because members do not

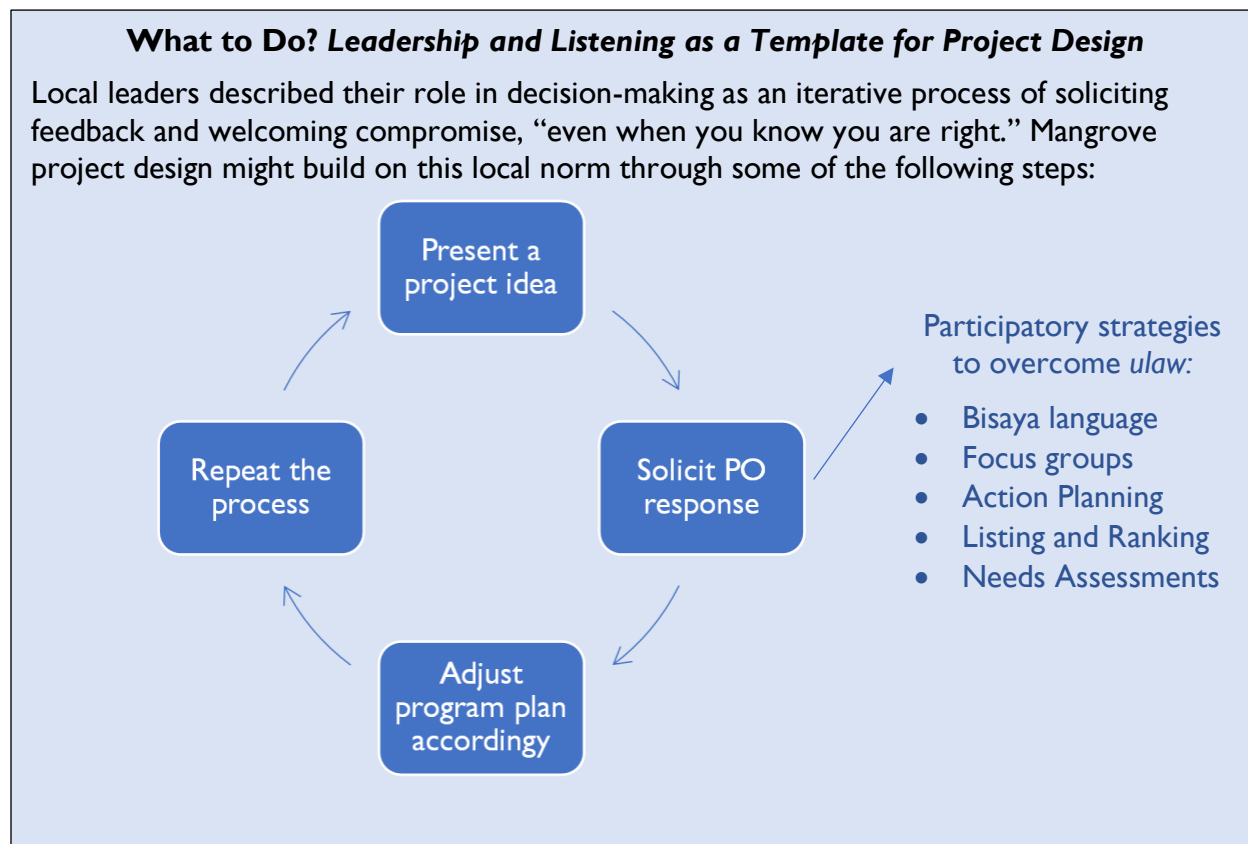
follow their good ideas and do not understand the challenges of administering budgets and coordinating with government actors.

The results of frayed leadership, both within PAPSIMCO and in community-based projects more generally, can include truancy, administrative disfunction, internal conflict, and low morale. Taken together, these problems show how even a motivated group relies heavily on the relationships between leaders and members. Community-based project managers therefore need to pay close attention to the expectations of leadership and group satisfaction with their leaders, mindful that managers themselves may be seen as leaders and subject to similar expectations. In Negros Oriental mangrove projects, my research showed that leadership most importantly requires active participation, a willingness to listen and adjust, attention to cultural values of humility, and the prioritization of emotional connections.

Many of the recognized community leaders I spoke with expressed humble ambivalence towards their position. “I don’t know why they elect us,” said one long-time chair of community associations. Another simply shrugged, “It’s just automatic.” But, even if unable- or unwilling- to explain why they occupied their position as leaders, interviewees were clear on the goals of leadership. As one PO member, a retired chair of community education initiatives, described to me, “You have to make them hope, and you have to challenge them.” Another respondent echoed this sentiment: “Filipinos like to be guided. That’s what we want from our leaders.” But how does one accomplish this? What, in the context of Filipino mangrove restoration, makes for a good leader?

The most common response to this question emphasized leading by example. Good leaders, I was told, lead by doing. Interviewees most frequently used the words active, present, hard-working, and energetic when describing the qualities of a good leader. This was common across lines of gender, class, occupation, and stakeholder category. It was especially prevalent, however, amongst PO members: of 14 members, the only interviewee who did not mention this quality was the PAPSIMCO President, whose reluctance to participate as a leader has been described above. To feel motivated and inspired, then, engaged participants will look for a project’s leaders to be engaged themselves. When, as in PAPSIMCO’s case, leaders do not take on this active role, group dynamics begin to fray.

The next most common descriptor of a good leader focused on listening. Leaders, interviewees told me, should be patient enough to listen to their members. They “should not hide from mistakes,” instead listening when their constituents have complaints, and adjusting to correct their shortcomings. One popular PO President described how he puts this value into practice: “If some don’t like me, I will ask them what I’ve done wrong because it is a fact that I need to change.” PO members noted that this requires both flexibility and respect. When conflicts arise, many interviewees pointed out, leaders should not hold onto their own ideas, instead finding a compromise with their members “in the middle.” This call for negotiation may seem simple and obvious, but it warrants closer inspection as a blueprint for decision-making and project design. Leadership in Negros Oriental requires soliciting stakeholders’ dissatisfaction *before* decisions are made, listening to complaints personally and openly, and letting go of what may seem like good ideas in order to meet stakeholders in the middle. This model may prove the best fit for a culturally appropriate project design process (see *box below*).



Central to this emphasis on listening is the Filipino cultural value of humility. The Bisaya word *magpailob* is used to mean both patience and humility, and respondents drew from this dual meaning when describing that a leader should “service” a community. The phrase *ika alagad*, described at the top of this section, demonstrates this ethic of service. Respondents in positions of power, such as government agency and LGU workers, often noted how much their success as project implementers relied on showing communities that “there is no barrier” between themselves and community members. Some described this as central to training PO members, and participant observation supported the claim that trainees are less attentive when the facilitator seems “above” them. In the context of trainings, barriers can be successfully dissolved when the trainer eschews microphones, stands amongst the group rather than front-and-center, and uses self-deprecating humor to subvert their status as a leader. In contrast, conservation leaders from agencies and NGOs are considered aloof and ineffective when they are perceived as acting like a “big boss.” When Filipinos describe this behavior, their body language is telling: they purse their lips, raising their eyebrows and heads to denote arrogance and an air of superiority. Perhaps for this reason, all of the higher-positioned officials I interviewed in government agencies- despite their public designation as “Sir”- emphasized their efforts to not seem like a boss, and to never make their employees feel below them. Leadership, then, requires the studied pretense of an equal footing- a performed subversion of hierarchies from above.

But listening and humility, while important for successful leadership, was considered insufficient. Many respondents felt strongly that leaders must also establish a strong sense of empathy with their constituents. Government officials, in particular, stressed the importance of working with PO members in their daily lives, learning the on-ground conditions of daily life and labor. Leadership through active participation was discussed in terms of having “passion” and “heart” for the people, “to show the POs that we love them.” English-speaking respondents insisted that good leaders must “develop a heart” and “give your heart.” Such emotional language in the context of technical management may make little sense in many Western contexts, but it exemplifies the emotional dimensions of leadership relevant even to formal and professional settings in the Philippines. PO members displayed the importance of this personal connection in their responses to external intervention. POs described emotional bonds as the primary component of their relationships with MCP implementers. In contrast, DENR staff

implementing prior mangrove efforts in Tambobo Bay provided training and materials but were seen as ineffective because they “were not returning anymore and they don’t even care what happens.” It was the lack of emotional investment- “caring”- that defined government agencies’ poor leadership. Management, PO members described, is not only a commitment to physical presence and mutually negotiated decisions, but to emotional labor as well.

Successful leaders in both government and community organizations devised strategies for attending to the emotional responsibilities of a leader. One provincial agency manager described working with POs on mangrove restoration projects early in his career: “I worked as a community organizer, I worked as a technical person, and I worked as their brother or father- somebody that will live with them and motivate them to work...[I was] the eyes, the ears, the heart.” His success leading the project, he implied, relied on emotional relationships resembling kinship more than managerial hierarchies. While this may be an extreme example, it highlights the ways that Filipino leaders navigate cultural expectations of leadership to avoid becoming an aloof “big boss.” In part, these emotional ties accomplish the goals of humility as described above: demonstratively subverting the barriers of hierarchy in order to make that hierarchy effective.

Every-day strategies for building these bonds can be quite direct. One community leader, in order to build the strength of his PO, leveraged food and drink to break these barriers and establish trust. “When there’s a meeting,” he explained, “I’ll spend my own money to buy some juice, bread, drinks- and they will stay, they will talk...When they get so serious, they won’t tell you anything.” But when a leader creates the right social conditions, emotional ties can form. “They will start talking about their problems, and you will understand them more.” This creates opportunities for the patient listening and flexible planning described above, and shows how the cultivation of emotional ties sets a foundation for the leadership traits outlined above. It also offers MCP further evidence that the creation of social bonds at the individual and group level should be core to mangrove restoration efforts, both because it will allow for more effective forms of management and because it will better meet the interests of PO members themselves.



Monitoring Indicators

	Never	Rarely	Sometimes	Often	Always
Are association leaders active in mangrove restoration?					
Do leaders attend PO meetings?					
Do leaders attend mangrove project events?					
When you have complaints, do you tell PO leaders?					
In these cases, do PO leaders listen and adjust?					
When you have complaints, do you tell MCP?					
In these cases, does MCP staff listen and adjust?					
Do you feel that MCP's work is from the heart?					

What to Do? Meeting Expectations for Good Leadership

- Prioritize personal relationships with PO Members
- Intentionally demonstrate humility in everyday conversations to put yourself “on a level” with community members and not seem like a “big boss”
- Include social events as part of the project experience

Applying Ethnographic Findings: Workshop Facilitation

One of the most common settings in which MCP staff, and environmental managers generally, find themselves acting as leaders is when they facilitate trainings and workshops. Participant observation in MCP- and government-led trainings allowed me to better understand how a nuanced understanding of local leadership norms can inform more effective facilitation:



RELATIONSHIPS FIRST

To build trust and convince attendees that your authority is legitimate, be sure to meet and chat with them *before* you begin teaching a session. This personal connection sets a foundation for the learning environment.



SELF-DEPRECATING HUMOR

Making fun of yourself throughout a presentation appeals to values of humility and helps avoid the facilitator seeming like a “big boss.” I found that this strategy helps facilitators hold attendees’ attention and keep audiences engaged.



LEAD FROM THE MIDDLE

Workshop participants respond better when facilitators eschew microphones and place themselves in the middle of the room, rather than in an authoritative position at the front. This corresponds to the value of leaders subverting the hierarchy from above, and “showing they’re on the same level” as constituents.

5.2 Patron-Client Systems: *Pagparayeg*

When someone has identified what they want and from whom they can get it, they might become close with that person in order to reach their goal. This is *pagparayeg*, the relationship-building conducted to meet material goals. With no equivalent in English nor Tagalog, this word is highly specific to Bisaya, and perhaps even to Negrense Bisaya. What makes it so specific, and so useful for understanding social responsibilities in Negros Oriental mangrove projects, is the moral undertones of this act. In most western contexts, such a brazenly transactional social exploit would be frowned upon, considered greedy, manipulative, or shameless. But *pagparayeg* is considered a good thing. To endear yourself to someone is

positive, and to build social ties respectable. The existence of material motives does not conflict with these values; to the contrary, it is an expected and respected aspect of social relations. Conservationists working in a Bisaya context must think hard about the expectations, responsibilities, and values embedded in this social practice, and the degree of cultural difference that renders *pagparayeg* untranslatable to English.

Pagparayeg is part of a larger social pattern in MCP project sites. The communities engaged in these projects, as elsewhere in the Philippines, operate within a relational economy, in which long-term personal relationships set a foundation for financial transactions and vice versa. This occurs most obviously in the form of patron-client relationships, which my research showed to be relevant for Negros Oriental mangrove projects. Patron-client systems are “dyadic contracts...based on the principle of, and...validated by, reciprocal obligations expressed in the exchange of services” between actors of a “significantly different socioeconomic status” (Foster 1963, 1281). That is, they are reciprocal relationships between people unequally positioned in a hierarchy. The obligations of these arrangements may be formal or informal and include both material and non-material exchange. As a result, these are multifaceted economic, social, and political relationships, not fitting into single-issue models like employment or market trade (Ferrol-Schulte et al. 2014; Ferse et al. 2012). Patron-client relationships are often enmeshed in flexibly defined credit-debt systems that can be vitally important for livelihood strategies and help fisherfolk withstand economic stressors (Acciaoli 2000; Ferse et al. 2012; Ruddle 2011). In turn, patrons often receive loyalty, social status, labor, and political power (Pelras 2000; Sandbrook 1972; Sudarmono et al. 2012; Wolf 2004). Though patrons may establish exploitative terms to garner disproportionate financial gains (Platteau & Nugent 1992), studies show that fishers often see no disadvantage in patron-client arrangements (Ferrol-Schulte et al. 2014; Teves 2000; Turgo 2016). In this context, Western norms distinguishing between economic and personal relationships become irrelevant. Here, the difference between project implementers and local actors can be wide, with major impacts on variable perceptions of project events and outcomes.

Scholars have examined patron-client systems in the Philippines, largely focusing on patronage in agrarian communities and landlord-tenant relations. These studies have showed how reciprocal relationships amongst unequal parties sustain livelihoods even while exacerbating hardships for the poor amidst technological, economic, and political change (c.f.,

Fegan 1982; Scott & Kerkvliet 1977; Wolters 1983). Others have extended analysis of this social organization to Filipino political life, noting how elected officials at national and local levels leverage material goods to harness the loyalty of followers (Hollnsteiner 1963; Kerkvliet 1995; Kasuya and Quimpo, 2010; Landé 1965; Teves 2000). This reinforces adherence to strongly defined hierarchical systems at once mutually beneficial and conflicted by inequalities. Michael Fabinyi, studying the patronage systems at play in a Filipino fishery, offered a succinct description of these local-level politics: “poorer people make a variety of claims on richer people that are expressed in a range of ways” (2013, p. 55). These claims may include individual and financial favors, such as lending money or other resources in difficult times; or broader social expectations, such as maintaining peace between conflicting group members or hosting community-wide events to bolster social cohesion. To work within Filipino fishing communities, it is important to understand these claims in their range of expression, and the ways that perceived benefactors respond.

Pagparayeg, the accepted fostering of relationships for material gain, describes how such claims manifest in personal relationships, and this is evident in the context of community-based projects in Negros Oriental. Speaking with PO Presidents about their strategies for implementing environmental projects helped me better understand this. Community leaders described leadership differently than the interviewees discussed above, focusing instead on the practical details of accessing and distributing funds for project implementation. One PO President, when asked how he worked with his members, described his role this way:

“Organizing people is easy. First, you have to go to the Barangay Officials. You should say you want to organize the women, and you should have a proposal to give them first. They will help you have a meeting, and at the meeting you must explain to the people why they will benefit from your idea. The government will always support organizations- women, fisherfolks, others- because it is in the constitution.”

The above quote could easily be misread as sly or boastful, but it was said matter-of-factly and without a hint of mischief. This leader offered a roadmap for governmental *pagparayeg*, the manipulation of hierarchical relationships for material ends. Discussing PO Presidents on the outskirts of Manila, Greg Bankoff noted that local community leaders “earn respect and command a following through [their] ability to tap external resources and distribute them”

(2015, p. 435). The governmental *pagparayeg* described above demonstrates how relational economies provide such opportunities for local prestige. Knowing he wanted funding, the PO President made himself a vehicle for the interests of government agencies while also explaining to the community how they will share in success. He enacted *pagparayeg* even as he created opportunities for his followers to do the same with himself. This is a leadership built on transactional relationships throughout a hierarchy, but true to the spirit of *pagparayeg* in that material gains do not conflict with genuine social ties.

A different PO President, one keenly interested in marine conservation, gave an example of this form of leadership as it relates to community-based conservation:

“I need to talk to the local governments and give them education. So I’m not talking directly to the Vice Mayor, but to his son. He is my friend now- because he’s the same age as me. The Vice-Mayor is older than me, so I can’t ask him for money. But I brought his son to the MPA, and we showed him how to scuba. Now, the Vice Mayor gave me an idea for how I can access money from the Mayor’s Office. You see? So now I’m getting 170 pesos per day from the LGU, and I’m using it as salary for the Bantay Dagat.”

Like the first PO President, this individual demonstrates *pagparayeg* as a leadership strategy for coastal management. The PO President has befriended powerful actors explicitly to garner their support in conservation programs, but this does not detract from his friendship. Once he has secured funds, the President distributes that material gain to his followers, creating another cycle of *pagparayeg* relationship-building and another line of patron-client ties. Clients at all levels benefit from the funds they access, while reciprocating through the political and social support they provide for their patrons. In this way, leaders create opportunities for themselves and their members, drawing government attention and securing their own vital role in the community. Fig. 6 simplifies this process in a formula common to leaders using such tactics.

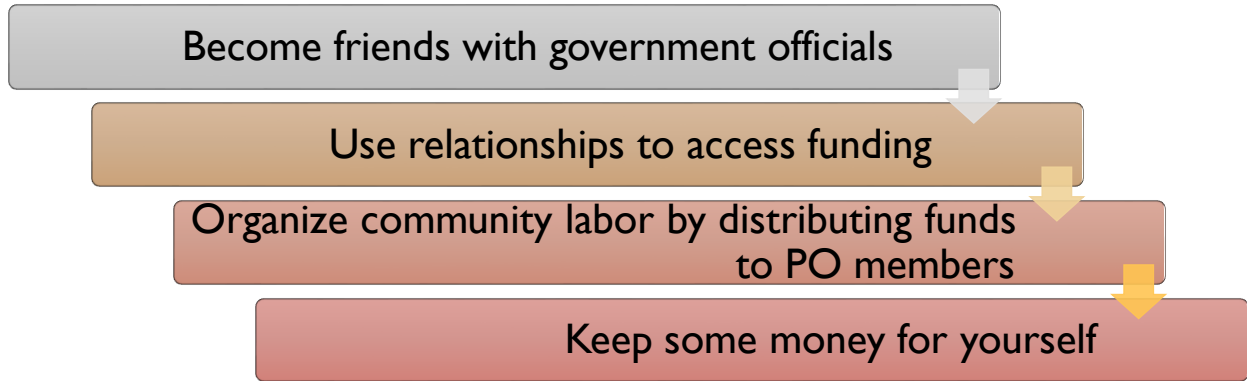


Fig. 6: The steps of *pagparayeg* that helps PO Presidents leverage government funds and community participation for environmental projects in Negros Oriental.

What is notable here is how much this strategy looks like Western ideas of corruption. In the local context, however, this judgement is not a culturally appropriate one. As Bankoff notes, the patron-client social organization, and by extension *pagparayeg* as a social practice, “does not easily conform to western models of leadership” (2015, p. 440). To be sure, PO members care about corruption, which occurs when a leader fails to build proper relationships with constituents or does not incorporate clients into the flow of benefits. *Pagparayeg*, in contrast, is responsible and socially appropriate behavior. This is one of many cases in which understanding local contexts and social norms can help foreign conservationists avoid misguided interpretations amidst the differences between implementers and community members. As the box below explains, the norms embedded in *pagparayeg* may have significant implications for participant engagement, and adjusting to those norms may improve project outcomes.



Monitoring Indicators

Do PO leaders meet their responsibilities to you?					
Are you contributing to mangrove projects as much as you want?					
Do mangrove projects help you get funds for your group?					
Do mangrove projects help you interact with government officials?					

What to Do? Accommodating Patron-Client Norms

The mutual obligations described above may help us understand stakeholder perceptions. When PAPSIMCO claims that they are not sufficiently contributing to mangrove efforts, they point to a failure to meet reciprocal obligations toward MCP. Though MCP may have no such expectations, community members may feel uncomfortable with a relationship in which they cannot fully reciprocate. Of course, the normal forms of patron-client reciprocation—political support, debt repayment, and in-kind labor—do not easily apply here. Nonetheless, MCP can work within patron-client norms to provide extra opportunities for reciprocation. My research indicates that creating such chances for repayment, which PO members can provide in the form of **social bonds**, **small favors**, or even public **displays of gratitude**, may prevent group members from feeling this sense of unfulfilled obligation. As previous sections have showed, if PAPSIMCO cannot reciprocate fully in its relationship with MCP, it will feel a sense of *utang kabubuton*—personal debt of the heart—which will lead to *ulaw* and disengagement. This demonstrates the intricate links between broader social structures and the personal, emotive experiences that influence the perceptions of project participants.

5.3 Livelihoods in a Local Context: Panginabuhi (Making a Living)

Patron-client systems, and the economic and social norms they engender, have often been overlooked by fisheries managers and conservationists alike (Fabinyi 2013; Ferrol-Schulte et al. 2014). My research shows that, while there are no easy answers directing foreign environmental managers *how* to engage across these differences, sustainable management will necessarily entail closer examination of and adjustment to patron-client norms. A third PO President, newly interested in mangrove projects, demonstrated the relevance of *pagparayeg* and patronage for mangrove projects in Negros Oriental: “There’s a lot of government projects that involve mangroves. There’s softshell crabs, green mussel culture, planting mangroves for payment as an alternative livelihood. It’s a really good idea.” This local leader was drawn to mangroves precisely for the way that mangrove projects can help him access resources for earning income. This case, in turn, points our attention to livelihoods as a particularly useful tool for patrons seeking to access and distribute resources while fulfilling their roles as leaders. The livelihoods this PO President dreams of will help him organize community labor not only to meet mangrove project goals, but also to maintain his status as an authority figure. Of course, this will also strengthen his ties to government figures who can provide him with more income opportunities, rounding out a circle of mutual obligations in which livelihoods act as a crux for collaboration and harmonious relations.

This example reinforces my findings from Section 3.1 that place livelihoods, or *panginabuhi*, at the center of mangrove project participant priorities. In the context of Negros Oriental coastal communities, livelihoods are not separable from the relational economy described above. This manifests most clearly in fishing communities as the *suki* patron-client relationship between fishers and buyers who maintain loyal bonds (Dannhaeuser 1983; Davis 1973; Fabinyi 2013; Mangahas 2004; Szanton 1971). While such an arrangement is beneficial for the patron, it also requires a great deal of work to uphold obligations to clients. *Suki* buyers in Lutoban described providing fishers with basic needs including fishing supplies, rice for their families to eat, and livelihood opportunities outside of the fishery. This practice can extend into the direct orbit of MCP. When a groundcrew position at the NGO became available, an MCP employee who had previously worked as a *suki* fish buyer reached out to a former client. The former buyer explained their choice: “They always repaid debts, so I knew they were sincere.” This explanation indicates the ways that patron-client systems can be fundamental to livelihood strategies, and hints at the complex social expectations that go into local livelihoods more broadly.

MCP enters into these cultural and relational meanings of livelihoods by supporting livelihood projects in its partner POs, in the form of bee-keeping, soap making, and ecotourism plans. I do not make this observation critically; to the contrary, all stakeholders I interviewed saw livelihoods as an important component of mangrove projects, indicating that MCP has made the right choice to include income generating activities. Respondents described livelihoods as crucial to project goals, and even an inevitable component of community-based activities. Over two-thirds of all interviewees mentioned livelihoods directly and without prompting while speaking about mangrove projects, and this proportion was consistent across stakeholder types, gender categories, and class differences.

Despite this general consensus, however, there were important differences in the explanations of why and how livelihood projects matter. One of the most glaring differences was between MCP and government implementers. Government agencies use mangrove restoration as a livelihood in and of itself, adopting a pay-for-plant model that pays PO members per tree planted and maintained. This practice has been common in Filipino mangrove restoration for decades, and now extends to PO seedling sales, with agencies buying surplus restoration stock for use in other communities. In contrast, MCP does not use mangrove

projects as a livelihood strategy, instead tying mangrove restoration to alternative livelihood projects such as soap-making and beekeeping. These activities take place outside of restoration settings, but with the same groups and with an understanding of the relationship between the two projects.

This contrast reflects an underlying difference of philosophy. MCP sees the pay-for-plant model as short-sighted and prone to perverse incentives. One non-Filipino MCP staff member summed up this critique: “To what extent are people [planting mangroves] to collect the 5 pesos, and to what extent are they doing it because they actually want something out of it? Like something for their community, and something larger?” This individual believed that paid planting “starts to degrade [community] interest in actually making it work over the long term, because they’ve already got what they wanted out of it.” MCP, in its alternative livelihood strategy, takes a different tack, “investing in what the people want to achieve, [goals] associated to mangroves that they might not realize are associated to mangroves.” That is, by providing opportunities for less extractive, long-term livelihood enterprises, MCP hopes to build new, non-monetized values around mangrove forests.

My research suggests that these distinctions, however, are not so cut and dry. Many communities have worked under the pay-for-plant model for decades, sustaining long-term participation and expressing satisfaction in the arrangement. PAPSIMCO itself began planting mangroves over 30 years ago, and its early engagement with pay-for-plant programs did not prevent lasting and holistic interest in mangroves, as evidenced above. Conversely, government officials note that many alternative livelihood projects simply fail, leaving communities uncompensated for the time they dedicated to planting. PAPSIMCO is again an instructive case: its green mussel aquaculture enterprise fell flat when Tambobo Bay was hit by a red tide, and this income generating activity never recovered. Even MCP’s beekeeping program, struggling due to unforeseen environmental and regulatory factors, may prove unsalvageable. If so, it will be at least the third attempt of PAPSIMCO members to keep bees as a livelihood strategy. And yet, POs continue to express interest in these alternative livelihood strategies, indicating that MCP has found a compelling blueprint for engaging local interests. These contradictions and ambiguities suggest the need for further exploration of mangrove livelihoods in order to understand the nuances of their success and failure. It seems at first an obvious topic, but the ethnographic question worth pursuing here is: why do livelihoods matter?

Perhaps most clearly, livelihood projects matter for income. As MCP staff noted, these projects address the pressing daily needs of PO members. “They get paid so little otherwise, that they have to have a supplemental income,” one staff member explained. This argument is well supported by my own research. PAPSIMCO members and leadership listed livelihoods as a primary driver of participation and insisted that for the group to be more active it must offer opportunities for income. Many members expressed hope that the income gained in alternative livelihood projects like soap-making would improve their quality of life; and when asked why they joined the mangrove group specifically, access to project-related income was the most common response. One member, consistently active in mangrove restoration projects, hoped that alternative livelihood projects would offer enough steady income to allow his wife to quit her job in Manila and return home. Another, new to PAPSIMCO, joined mangrove efforts because her husband forbade her from working but allowed her to take part in PO livelihood projects. These cases demonstrate the gravity of circumstances that make livelihood projects compelling for local participants.

And yet, this explanation seems incomplete. If income and poverty were the ultimate drivers of interest, it would be easy to garner support for mangrove efforts. Governments would not struggle to maintain community engagement, PAPSIMCO would not describe itself as “asleep,” and MCP would have no trouble with disengaged communities who resist collaboration. Poverty alleviation is a key ingredient of mangrove project appeal, then; but a deeper, more nuanced explanation is needed in order to improve community engagement efforts.

The cultural significance of livelihoods in Negros Oriental extends beyond financial concerns. This is evidenced by the norm of multiple livelihoods, locally called *sidelines*. Multiple livelihoods are a common economic strategy throughout the world, and particularly in developing countries where they can help mitigate vulnerability and diversify the social and material resources available to an individual or household (Scoones 2015). In Negros Oriental, *sidelines* take on particular meaning in the local context. Filipinos I spoke with expressed a strong desire not just to earn money, but to work whenever possible. This work, in turn, is valued both for the income it generates, and for its own sake as a preferable use of time. “I love having sidelines!” one interviewee told me, “because then you know you have time. Without

sidelines, you might get bored.” That is, extra time is not an opportunity to relax, it is an opening to fill with productive activity. Most Filipinos I spoke with, be they PO members, community leaders, LGU and agency officials, or MCP employees, told me they had at least one other income source. This trend was consistent across gender and class distinctions. In villages, sidelines included cock fighting and breeding, copra harvest, pedicab driving, boat repair, purse-making, and sari-sari store ownership. For full-time professionals living in towns, sidelines ranged from marketing consumer products, to tutoring, to agroforestry. This range of sidelines, and the consistency with which people engaged in them, suggests the profound cultural value Filipinos place on work. As one fully-employed man told me, “when I rest or take vacation, when I’m not working, I feel that I get weak.” Livelihoods, he indicated, are important for reasons extending beyond material need.

Filipino mangrove project implementers offered an additional explanation for the importance of livelihoods, one that helps make sense of how livelihoods matter for project participants. DENR officials noted that livelihood projects increase community engagement and maintain “good relations with the PO.” As one Filipina project implementer described, livelihood projects “add connection” and help you stay involved with the community, “having to always show yourself...and they trust you more.” This is an explanation that neither PO members nor foreign MCP staff suggested: livelihoods are important not only for their financial value, but for their social value as well. Because of this, officials in managerial roles at environmental agencies called livelihood projects not only a part of mangrove strategy, but an indicator of success in restoration efforts.

The emphasis on livelihood projects as a relationship-building component of mangrove restoration calls back to previous findings. The above discussions of *pagparayeg*, *suki*, and the relational nature of Filipino economic life evidenced that even amidst poverty and financial need, economic interactions are important for non-monetary reasons as well. Due to their particular cultural significance, this is particularly true where livelihoods are at play, Ethnographers and historians have argued that distribution of livelihoods and mobilization of labor has for centuries been a foundation of Filipino patronage, and remains so (Cannell 1999; Junker 1999; Rafael 1988; Scott 1983; Teves 2000). In Negros Oriental fishing communities, this pattern plays out in the *suki* relationship as well as in the roles that local PO leaders play when they access and distribute income-generating project funds. In these contexts, livelihoods are a vehicle for

fulfilling the mutual obligations between patrons and clients. Mutual obligations, in turn, infuse livelihoods with moral undertones in which patrons bear responsibility to provide clients with employment (Fabinyi 2013). This is the context in which the *pagparayeg* of local environmental projects, as outlined above, can be recognized as good leadership: rather than corruptly hoarding all the gains of their personal relationships, the PO presidents in question created employment for their own clients. The same social logic leads PO members to view DENR pay-for-plant programs, which leverage government authority for community income, as desirable. The key to local meaning does not lie in a division between monetary and non-monetary value, as MCP staff believes; this distinction is not relevant in the cultural context of Negros Oriental. Rather, PO members evaluate these projects through a moral lens, focusing on the patron's duty to generate livelihood opportunities.

One of the values that makes livelihood distribution so fundamental in these relationships is the principle of unity or togetherness, described in Bisaya as *paghi-usa*. Fabinyi (2013), discussing the Tagalog equivalent *pakikisama*, notes that fish buyers/patrons, in their capacity to distribute material and employment opportunities, become accountable for a community's sense of togetherness. Recall that this togetherness, *paghi-usa*, is precisely what PAPSIMCO feels is lacking in its group. *Paghi-usa* was a core goal of mangrove projects for PAPSIMCO members, and they ascribed their current deficiencies primarily to inactive leadership. When PAPSIMCO members express hope that livelihood projects will spur momentum and increase engagement, they look forward to the resulting sense of unity and togetherness that they seek in mangrove restoration projects. Government officials mirror this line of thinking from the manager's side when they describe using livelihood projects to build relationships with and among PO members. Leadership here leads to livelihoods, which are important in part for fulfilling moral responsibilities of mutual support and in part for their role in maintaining social cohesion. This logic is based on the social norms of patronage and leadership described above, and may shape the expectations applied to MCP when it takes on the role of distributing livelihoods.

PO members make clear that this set of expectations extends beyond financial resources to include personal relationships and social impacts. PO members who have worked with government pay-for-plant programs in the past express dissatisfaction not because of the payment strategy, but because of weak social ties. "Oh my god," one woman told me, "the

government was just coming and bringing materials. ‘What do you need? What do you need? What training do you need?’ It was like that, and they even were paying us for the trees. But they would just come and then later on, ‘Bye-bye.’ And not returning anymore. They don’t even care what happens.” Another PO member echoed this sentiment: “The government is not good because they just give whatever, and then they leave.” These comments, made in reference to pay-for-plant programs, suggest that payments themselves do not degrade interest in mangrove projects or environmental stewardship; but failures of leadership, defined by deficiencies in personal bonds and social cohesion, do. Livelihoods and trainings were not sufficient to maintain engagement. These were, in fact, rendered meaningless because they were not accompanied by active engagement and personal relationships, two of the fundamental requirements of good leadership. When project implementers distribute livelihoods, they take on this role, defined in the context of patron-client norms. When they do not attend to the interpersonal and group-level responsibilities of local leadership, the project flounders: the group sees managers as uncaring and lacking heart, loses a sense of *paghi-usa* togetherness, and cannot maintain its own interest amidst what it perceives as defunct leadership. MCP has not breached this unspoken expectation and is generally seen as a positive contrast to government disinterest. To maintain this encouraging dynamic and its successful impact on project engagement, MCP should be aware of its larger responsibilities in the social context of community-based projects. This is important not only for livelihoods and reforestation, but for the expectations of social cohesion that accompany both.



Monitoring Indicators

Does mangrove restoration help you earn income?							
Do mangrove projects help you find sidelines?							
Do livelihood projects help build unity (<i>paghi-usa</i>) in your group?							
Do you see project staff often?							
Do project staff show they care?							

Conclusion

This study has focused on the experiences of mangrove project participants to shed light on the drivers of local engagement and the larger social processes that give shape to such motives. I have begun with an explanation of project goals, showing how different stakeholders do and do not share the same expectations and priorities for mangrove restoration outcomes. The recognition of different objectives led to a discussion of how varying forms of knowledge coexist, and sometimes conflict, within MCP's projects in Negros Oriental. This set the stage for a broader discussion of cultural difference, in which Bisaya words, phrases, and poetry served as a guide for understanding local meanings. In examining heritage and identity, I argued that a place-based sense of community drives community members to take part in environmental projects, and that goals of social cohesion therefore take particular importance for these stakeholders. Local identities also come with culturally specific emotional responses such as *ulaw*, a sense of shame and shyness that can lead to disengagement at many steps of the project life cycle. Gender inequalities and the sexist norms of some environmental offices present just one example of *ulaw* and disengagement, but one with particular significance for project outcomes and the ethics of environmental management.

I next examined the wider social context in which these collaborative projects take place, focusing particularly on norms of hierarchy that influence the expectations put on managers. I found that local expectations of good leadership are predicated in the building of strong personal bonds, and punctuated with a leader's regular demonstration of humility. These findings had direct implications for project activities such as workshops, where audience response hinges on the facilitator's culturally appropriate self-presentation. I described how culturally specific roles of leadership in Negros Oriental reflect patron-client systems and relational economies. This highlights the need for managers, especially foreign ones, to understand the nuances of patron and client roles, particularly when project activities come to fill these roles. Such is the case in livelihood projects, in which conservation staff take on the traditional functions of patronage and may not realize that other responsibilities follow. Understanding and fulfilling these responsibilities is essential for successful project implementation in Negros Oriental communities, and especially for meeting community goals of social cohesion. Such an analysis suggests the holistic approach needed for community-based

mangrove restoration in Negros Oriental, where expressions of identity and emotional response are enmeshed in norms of mutual obligations between patrons and clients.

To make these findings useful beyond the realm of interpretive anthropology, I have placed text boxes throughout the report to show how project activities can incorporate ethnographic insights. These include recommendations for project design, programming ideas, participatory techniques, personal interaction, workshop facilitation, and combating gender-based discrimination. Together, they demonstrate the way that ongoing ethnographic fieldwork can be joined with project implementation to improve both environmental and social outcomes. As a key piece of this effort, I have designed a prototype survey for monitoring stakeholder engagement (*Appendix C*). This tool, with questions built from each section of my analysis, strives to measure project success by the words and stated goals of participants themselves. In this sense, the report is an effort at assessing project activities both more accurately and more equitably. It also argues for the role of ethnography in formal monitoring and evaluation efforts, particularly when assessing experience-based factors such as participation.

The limits of this analysis are significant, and I cannot make any claims to the broader applicability of my findings even within the Visayan Islands, let alone across the Philippines or at a wider scale. Nor do these findings represent long-term data. These reflect a piece of the reality of mangrove participation at a handful of sites, at one point in time. To extend this report further would be inappropriate and methodologically unsound. And yet, taken as a process, this study offers a model that community-based environmental management can build on in any setting. This study's use of ethnographic research methods, participatory techniques, and anthropological analysis proved effective for project design and implementation. These tools allowed for insights with attention to linguistic, social, political, and cultural detail- aspects of life often lacking in project management. Environmental managers have the opportunity to incorporate such approaches into daily activities and operational processes, and my data shows that this interdisciplinary approach to conservation and development is well worth its required effort. The result of this approach is a community-based management not only more likely to meet environmental goals, but better equipped to understand and fulfill the interests of those most impacted by project outcomes.

Appendix A: Poems by Rose Abejero; translated by Ben Siegelman and
Cesar Ruiz

Nagbakho nga kinaiyahan (Nature Sobs)

Nagbakho nga kinaiyahan

By Rose Abajero

Upaw na ang kabukiran sa manga
paglaom,
Wala nay kahoy sa kaugmaran sarang
pang makasalimbong.
Mu ulan mu dahili ang iuta paingon sa
kadagatan;
Manga isda naghilak kay wala na silay
kapoyan.

Modalios-os kita aron paganinaw sa atong
kabaybayonan.
Diin atong makita ang halapad nga lawod
sa atong kadagatan;
Nga maoy nagsalimbong sa tanang
kinabuhi nga anaa sa kahiladman;
Aron dili makamkam sa kolamoy Sa
tumang kapintas ug kamapa nga hasun.

Kaway puangod samga maguuma,
nagpunay pamotol sa kahoy.
Nagpunay pangoha sa isda sa way
pagpanumbaling kon unsa ang
dangatan
sa nagsunod nilang mga kabataan.

Kaway puangod sa manga manginisda;
Ang mga goso gipamoril intawon.
Ang tanang isda nagbakho nalamang
Kay wala na silay kaitlogan ug kapaharay-
harayan

Nature Sobs

By Rose Abajero

The mountain ranges are bald of hope,
There are no trees to shield it from
development.
Rains wash the land down into the seas;
The fish cry because they've lost their
home.

We slide down, watching our shorelines.
We see them wider than our ocean is
deep;
Those depths that protect all life, life
exists in the deepest;
So we don't snatch it all up with our
tentacles, so painful and so aggressive.

They're mindless, the farmers,
always chopping down trees.
Always catching fish without caring
what happens to the next generation.

They're mindless, the fishermen;
The corals they hack- take pity.
All the fish can do is sob
Because they have no nests, and no place
for rest.

Ecology Ampingi (Take care of the Ecology)

A poem to be sung

Ecology Ampingi

By Rose Abajero

Dandansoy, ecology ampingi;
Kabukiran, kadagatan bantayi.
Ang lasang ayaw pasipad-I; kaugmaon sa
anak kaloy-i.

Dandansoy, katawhan tudloi
Sa hustong panguma giyahi.
Abunong commercial sila did-i;
Pag-aslom sa yuta likayi.

Dandansoy, abunong organic sa tanom maoy
gamita.
Imong yuta maulian pa; ka-acid sa yuta
likayan ta.

Dandansoy, ang dagat limpyohi;
Sa basura ayaw tambaki.
Ang guso ayaw abusohi; kaugmaon sa tanan
nia dinhi.

Take Care of the Ecology

By Rose Abajero

Dandansoy, take care of ecology
Guard the mountains and the seas
Don't destroy the forests; pity the future
of our children

Dandansoy, teach the people
Guide them to farm the right way
No commercial fertilizer
Avoid turning the land sour

Dandansoy, organic fertilizer must be
used on the plants
Your land will return (indeed); We must
avoid acid in the land

Dandansoy, clean the seas
Don't dump your trash
Don't abuse the corals; the future of us all
is here.

Polusyion (Pollution)
A poem to be sung

Polusyion

By Rose Abajero

Wo wo yeah yeah, Taga-Siit dako ug swerte:
Sa tourist zone kita gipili, wo wo, sa polusyion mahilayo.
Wo wo yeah yeah, ecology intawon ampingi;
Katawhan sa Siit, matngoni, wo wo, ang polusyion likayi.

Kora:

Kinahanglan kita mag-usa, palamboon ang barangay ta.
Ang pabrika dili tukoron, resulta kana sa polusyion.

Wo wo yeah yeah, Mag-uuma, intawon ampingi;
Kakahoyan ayaw purila, wo wo, kaugmaon sa anak ta.
Wo wo yeah yeah, Mangingisda, ayaw palabi;
Kadagatan intawon ampingi, wo wo, aron tanan malibre.

Pollution

By Rose Abajero

Wo wo yeah yeah, All of Siit has a lot of luck
We were chosen as a tourist zone, wo wo, pollution is far from here
Wo wo yeah yeah, please take care of the ecology
People of Siit, remember, wo wo, avoid pollution.

Chorus:

We must be one, to cultivate our barangay.
Don't build factories, it results in pollution.

Wo wo yeah yeah, farmers, please take care;
Don't cut down the trees, wo wo, they're the future of our children.
Wo wo yeah yeah, fishers, don't overfish;
Please take care of the seas; wo wo, so that all will be free.

Dalaga sa Bukid (Single Woman from the Mountains)

Dalaga sa Bukid

By Rose Abajero

Maoy mutya sa buhat ang dalaga sa bukid
Sa singot makapahid sa manga
magbabaul.
Kinsa dagway ug larawan sa Pilipinhong
mithi,
Salamin sa kakugi maoy diwa sa gugma.

Kamanggaimbuhaton sa walay
pupahulay,
Adlaw, gabii sa buhat motubay
Kon srang malig-on sa iyang kaugalingon,
Sa magdaro modasig sa iyang
pagparayeg.
Ug sa payag magawit dinuyogan sa palad
Ang dalagang Bukidnon.

Single Woman from the Mountains

By Rose Abajero

This treasure, the single woman of the
mountains,
Wiping away the farmer's sweat.)
Who's face is the picture of Filipino goals,
Mirrored in her toils, there is the
presence of love.

The maker, she doesn't rest,
Day, night always making.
With the strength of her self,
She encourages the farmer to plow with
her *pagparayeg*.
And in the hut, they sing to the clapping
rhythm
The single women of the mountains.

Pagpakabana (Taking Responsibility)
A poem to be sung

Pagpakabana

By Rose Abajero

Awitan ko, kamo higala, awit nga
magpakabana ta.
Sud-onga ang atong katunggan, gipuril ug
naupaw na.

Kora:

Kuyog, higala; kuyog, higala, sa among
paghiusa
Sa pagpabalik kinaiyahan sa naupawng
kabukiran

Kon ikaw, higala, ang nagutman,
Kinhason ug isda sa kadagatan.
Dili ang Dios pasanginlan, sala kana sa
katawhan.

Kon ikaw, higala, ang naig-an,
Programa sa atong kagamhanan
Pagpahiuli sa kinaiyahan sa naopawng
kabukiran.

Taking Responsibility

By Rose Abajero

I sing, my friends, I sing of our
responsibilities.
Watch carefully our small mangrove
forest, they will chop it down and it
will be bald.

Chorus:

Join, friends; join, friends, our unity;
To bring nature back to the bald
mountains.

With you, friend, you have the hunger of
one missed meal;
Shells and fish of the seas.
Don't blame God, for the sins of the
people.

With you, friend, it strikes you,
Our government's programs;
Returning nature to the bald mountains.

Sa Siit (In Siit)
A poem to be sung

Sa Siit

By Rose Abajero

Kon sud-ongon ang Siit, nindot tan-awon;
Ang hangin preskong hanggapon kay layo
sa polusyon.

Sa Siit, sa Siit, ang kalipay mohingpit:
Sa kanindot di ka malimot, sa kapresko
ka mahimuot.

Busa, igsoon, ang pagmahal ta
padayonon:

Ang pagdumot ta hikalimtan, ang
barangay ta panalipdan.

Sa Siit, sa Siit lang nimo matagamtaman
Ang kabugnaw sa kadagatan, ang
kanindot sa kabaybayonan.

Busa, higala, kinahanglan kita mag-usa:
Ang pabrika dili tugotan kon barangay ta
pagatukoran.

Polusyon, polusyon ang ato gyung
maangkon
Kon kita magpakahilum; kaugmaon ta
maanugon.

In Siit

By Rose Abajero

Watch Siit carefully, watch its beauty;
Smell the fresh winds because pollution
is far.

In Siit, in Siit, truly there is happiness:
You never forget its beauty, you are
content in the freshness.

So that, brother, our love continues:
Forget our hatreds, let's defend our
barangay.

In Siit, in Siit you are satisfied
There's the cool seas, the beauty of the
beaches.

So that, friend, we must unite as one:
Don't let them build factories in our
barangay.

Pollution, pollution we will surely get
If we stay quiet; our future will be
wasted.

Liron, Liron Sinta (Liron, Liron My Beloved)

A poem to be sung

Liron, Liron Sinta

By Rose Abajero

Liron, liron sinta, sugarol walay kwarta.
Pauli sa balay, kaldiro mokagay;
Lakip mga plato, baligyag barato.
Adto sa casino nahurot kadiritso.

Pauli sa balay, sinina giablay,
Hoyhoy ang abaga kay kuarta hurot na.
Asawang banhaan, bana gidasmagan,
Bana nga kanahan, asaway gitakyan.

Kon buros ang asawa, puerte gyung
banhaa.
Bana nga hubogon asaway bun-ogon.
Ang anak gigutom, mangayo ug kan-on;
Bana nga hubogon, hangtod anak
rapidohon.

Kon ikaw, igsoon, gaplanog kaminyoon,
Sud-ongon unahan sa imong kaanakan.
Ang imong planohon husto nga pagkaon
Ug, ang ikaduha, ilang edukasyon.

Liron, Liron My Beloved

By Rose Abajero

Liron, Liron my beloved, gambler without
money.
Go back home, the rice pot is shattered;
Also the plates, sell them cheap.
Go to the casino, your money immediately
disappears.

Go back home, clothes over your shoulder,
Slumped at the shoulders because your
money is gone.
Wife is talkative, the husband crashes into
her,
The husband is irresponsible, he kicks his
wife.

If the wife is pregnant, she's very noisy.
The husband is drunk, he beats his wife.
The child is hungry, asking for food;
The husband is drunk, he also batters his
child.

If you, brother/sister, plan to be married,
Take care of your children's futures.
Plan for the right food,
And, second, their education.

Appendix B: Semi-Structured Interview Questions, Co-Designed with Members of PAPSIMCO Women's Association

When did you begin working on mangroves? How did the mangrove project start?

Kanusa ka nagsugod sa pagtanom ug manga kahoy sa kabakhawan? Giunsa pagsugod ang proyekto sa kabakhawan?

Why do you work on mangroves? When did you start to care about mangroves? What is the benefit of mangroves?

Ngano kinahang lan magtanom ug bakhaw? Kanusa ka nagsugod ug pagmahal sa atong kabakhawan? Unsay nakita nimong kaayuhan sa atong kabakhawan?

Why did you sign your name for the mangrove project group?

Ngano ka misulat sa imong ngalan na makauban sa kabakhawan group?

Have you seen changes in our place? Have you seen changes in our mangrove forest?

Unsay panglantao nimo sa atong lugar? Unsay imong nakita kausbanan sa atong kabakhawan?

What do you feel you can contribute to the project?

Unsay imong ikatabang sa proyekto? Unsay imong ikatampo?

What do you want MCP to contribute to our project?

Unsay ganahan nimo na ikatampo ang MCP sa atong proyekto?

What are your goals in life?

Unsay pangandoy imong kinabuhi?

What do you think of the meeting from last week? What would you like to be better in the meeting?

Unsay panglantao nimo sa atong meeting sa miaging semana?

If the mangrove project is successful, how will you know? What would be success in the project?

Unsay panglantao nimo paglambo sa atong proyekto?

What do you want for the future of mangroves?

Unsay imong paglaom sa atong Proyekto sa kabakhawan?

Appendix C: Full Participant Engagement Survey Tool

Please note that the following is a survey tool in its formative stages. Before being used as a measure of participant engagement in Negros Oriental mangrove projects, this survey should go through a number of methodological steps. It should be translated to Bisaya. In translation, I recommend forming two or three different wordings for each question. I found this strategy was useful in interviews, when respondents were more likely to answer the second or third restatement of a question no matter the order of questions. After translation, these survey questions should be tested in limited settings, soliciting feedback from respondents to see if the questions make sense to them and seem appropriate. Questions should be adjusted and re-tested as needed. Results of preliminary survey exercises can be quantified using a Likert Scale in which categories at the left column equal 1, and categories at the right 5. When answers are quantified and aggregated, they can be interpreted with relative ease and these findings presented to respondent groups to see if the interpretation matches their own explanations. If more adjustments are needed, they should be made and the process repeated. This cycle of validation will ensure that the final tool gives an accurate reflection of stakeholder engagement, quantifiable and comparable across sites. Without these steps, the tool should not be considered valid.

Q. 1	How important are the following goals for your project?	Not Important	Somewhat Important	Neutral	Important	Very Important
Values of Mangroves (Section 3.1)	More mangroves					
	Carbon Storage					
	Water filtration					
	Storm Protection					
	Food source					
	Soil Erosion					
	Livelihoods					
	Natural Beauty					
	Togetherness (<i>Paghi-usa</i>)					
	Please list the three most important of these goals.	1. 2. 3.				

Q. 2		Never	Rarely	Sometimes	Often	Always
Place and Identity (Section 4.1)	Do you feel there is togetherness (<i>paghi-usa</i>) in your community?					
	When you work on mangrove projects, do other community members join you?					
	How often do you plant mangroves with children?					
	Are you able to share with others your own experience of mangroves and the environment?					
Q. 3		Never	Rarely	Sometimes	Often	Always
Emotions and Personal Experience (Section 4.2)	Are project activities conducted in Bisaya?					
	Are you able to communicate with MCP staff?					
	Do you feel <i>ulaw</i> with MCP staff?					
	When you disagree with MCP, do you say anything to them?					
	Are you friends with the MCP staff who you work with?					
	Are PO members contributing enough to the project?					
Q. 4		Never	Rarely	Sometimes	Often	Always
Expectations of Leadership (Section 5.1)	Are association leaders active in mangrove restoration?					
	Do leaders attend PO meetings?					

	Do leaders attend mangrove project events?					
	When you have complaints, do you tell PO leaders?					
	In these cases, do PO leaders listen and adjust?					
	When you have complaints, do you tell MCP?					
	In these cases, does MCP staff listen and adjust?					
	Do you feel that MCP's work is from the heart?					
Q. 5		Never	Rarely	Sometimes	Often	Always
Patron-Client Systems (Section 5.2)	Do PO leaders meet their responsibilities to you?					
	Are you contributing to mangrove projects as much as you want?					
	Do mangrove projects help you get funds for your group?					
	Do mangrove projects help you interact with government officials?					
Q. 6		Never	Rarely	Sometimes	Often	Always
Livelihoods (Section 5.3)	Does mangrove restoration help you earn income?					
	Do mangrove projects help you find sidelines?					

	Do livelihood projects help build unity (<i>paghi-usa</i>) in your group?					
	Do you see project staff often?					
	Do project staff show they care?					

Works Cited

- Abu Lughod, Lila. 1991. Writing against culture. In R.G. Fox, *Recapturing Anthropology: Working in the Present*. Santa Fe, NM: School of American Research Press. pp. 137-161.
- Acciaoli, G. 2000. Kinship and debt: The social organization of Bugis migration and fish marketing at Lake Lindu, Central Sulawesi. In B. Tot de Taal & L. Volkenkunde (eds.), *Authority and Enterprise Among the Peoples of South Sulawesi, Vol. 156*. pp. 588-617.
- Agarwal, A., and C.C. Gibson. 2001. The role of community in natural resource conservation. In Agarwal, A., and C.C. Gibson (Eds.), *Community and the environment: ethnicity, gender and the state in community-based conservation*. Rutgers University Press, New Brunswick. 1-31.
- Agarwal, B. 1992. The gender and environment debate: Lessons from India. *Feminist Studies* 18(1): 119-158.
- Aheto, D.W., S. Kankam, I. Okyere, E. Mensah, A. Osman, F.E. Jonah, and J.C. Mensah. 2016. Community-Based Mangrove Forest Management: Implications for Local Livelihoods and Coastal Resource Conservation Along the Volta Estuary Catchment Area of Ghana. *Ocean and Coastal Management* 127:43-54.
- Arnstein, A. 1969. A ladder of citizenship participation. *Journal of the American Institute of Planners* 26:216-233.
- Aronson, J., C. Floret, E. Le Floc'h, C. Ovalle, and R. Pontanier. 1993. Restoration and rehabilitation of degraded ecosystems in arid and semi-arid lands. II: Case studies in southern Tunisia, central Chile and northern Cameroon. *Restoration Ecology* 1:168-187.
- Carney, J. 1993. Converting the wetlands, engendering the environment: The intersection of gender with agrarian change in the Gambia. *Economic Geography* 69(4): 329-348.
- Bandaranayake, W.M. 1998. Traditional and medicinal uses of mangroves. *Mangroves and Salt Marshes* 2:133-148.
- Bankoff, G. 2015. "Lahat para sa lahat" (everything to everybody): Consensual leadership, social capital and disaster risk reduction in a Filipino community. *Disaster Prevention Management* 24(4): 430-447.
- Barad, Karen. 2014. Invertebrate visions: Diffractions of the brittlestar. In Kirksey, E. *Multispecies Salon*. Durham: Duke University Press.
- Bené, C. 2006. Small-scale fisheries: Assessing their contribution to rural livelihoods in developing countries (No. 1008). FAO Fisheries Circular, Rome.
- Bernard, H. R. 2002. *Research Methods in Anthropology: Qualitative and Quantitative Methods*. Walnut Creek, CA: Alta Mira Press.
- Blaikie, P. 2006. Is small really beautiful? Community-based natural resource management in Malawi and Botswana. *World Development* 34(11): 1942-57.
- Bulatao, J.C., 1964. Hiya. *Philippine Studies* 12: 424-438.
- Campbell, L. M., & Vainio-Mattila, A. 2003. Participatory development and community-based conservation: Opportunities missed for lessons learned?. *Human Ecology* 31(3): 417-437.
- Campbell, L. M. 2000. Human need in rural developing areas: Perceptions of wildlife conservation experts. *The Canadian Geographer* 44(2): 167-181.
- Cannell, F. 1999. *Power and Intimacy in the Christian Philippines*. Cambridge: Cambridge University Press.

- Cernea, M. 1996. Social organization and development anthropology. Environmentally Sustainable Development Studies Monograph Series, No. 6. World Bank, Washington, DC.
- Dannhaeuser, N. 1983. *Contemporary Trade Strategies in the Philippines*. New Brunswick, NJ: Rutgers University Press.
- Davis, W.G. 1973. *Social Relations in a Philippine Market: Self-Interest and Subjectivity*. Berkeley, CA: University of California Press.
- DeWalt, K.M. 2011. Participant Observation: A Guide for Fieldworkers. DeWalt, B.R. (Ed.). Lanham, MD: Rowman and Littlefield.
- Donato, D.C., J.B. Kauffman, D. Murdiyarso, S. Kurnianto, M. Stidham, and M. Kanninen. 2011. Mangroves among the most carbon-rich forests in the tropics. *Nature Geoscience* 4:293–297.
- Elmhirst, R. 2011. *Introducing new feminist political ecologies*. *Geoforum* 42(2): 129-132.
- Emerson, R.M. 2011. Writing Ethnographic Field Notes. Fretz, R.I, and L.L. Shaw (Eds.). Chicago: University of Chicago Press.
- Evans, C., & Lambert, H. 2008. Implementing community interventions for HIV prevention: Insights from project ethnography. *Social Science & Medicine* 66(2): 467-478.
- Fabinyi, M. 2013. *Fishing for fairness: Poverty, morality and marine resource regulation in the Philippines*. ANU Press.
- Fals Borda, O. 1987. The application of participatory action-research in Latin America. *International Sociology* 2(4): 329-347.
- Fals Borda, O. 2007. La investigacion-acción en convergencias disciplinarias. *Isaforum* 38(4): 17-22.
- Fairhead, J., & Leach, M. 1995. False forest history, complicit social analysis: rethinking some West African environmental narratives. *World Development* 23(6): 1023-1035.
- Fegan, B. 1982. The social history of a Central Luzon barrio. In A.W. McCoy and E.C. de Jesus (eds.), *Philippines Social History: Global Trade and Local Transformations*. Quezon City: Ateneo de Manila University Press.
- Ferrol-Schulte, D., Ferse, S.C., & Glaser, M. 2014. Patron-client relationships, livelihoods and natural resource management in tropical coastal communities. *Ocean & Coastal Management* 100: 63-73.
- Ferse, S.C.A., Glaser, M., Neil, M., Schwerdtner Máñez, K. 2012. To cope or to sustain? Eroding long-term sustainability in an Indonesian coral reef fishery. *Regional Environmental Change* 14(6): 2053-2065.
- Foster, G.M. 1963. The dyadic contract in Tzintzuntzan, II: patron-client relationship. *American Anthropologist* 65: 1280-1294.
- Franks, T., and R. Falconer. 1999. Developing procedures for the sustainable use of mangrove ecosystems. *Agricultural Water Management* 40:59-64.
- Freire, P. 2018. *Pedagogy of the oppressed*. Bloomsbury Publishing USA.
- Gardner, K., & Lewis, D. 2015. *Anthropology and Development: Challenges for the Twenty-First Century*. London: Pluto Press.
- Gilligan, C. 1993. *In a Different Voice*. Harvard University Press.
- Glaser, M., Radjawali, I., Ferse, S., & Glaeser, B. 2010. 'Nested' participation in hierarchical societies? Lessons for social-ecological research and management. *International Journal of Society Systems Science* 2(4): 390-414.
- Global Nature Fund (GNF). 2015. Mangrove restoration guide: best practices and lessons learned from a community-based conservation project. Radolfzell, Germany.

- Guest, G. 2013. *Collecting qualitative data: a field manual for applied research*. Mitchell, M.L, and E.E. Namey (Eds.). Thousand Oaks, CA: SAGE Publications.
- Haenn, N. 2005. *Fields of Power, Forests of Discontent: Culture, Conservation, and the State in Mexico*. University of Arizona Press.
- Haenn, N. & Wilk, R., eds. 2006. *The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living*. New York, NY: NYU Press.
- Haenn, N. 2016. The middle-class conservationist: Social dramas, blurred identity boundaries, and their environmental consequences in Mexican conservation. *Current Anthropology: A World Journal of the Sciences of Man* 2: 197-218.
- Haraway, Donna. 1997. *Modest_Witness@Second_Millennium.FemaleMan_Meets_Onco- Mouse: Feminism and Technoscience*. New York: Routledge.
- Hogarth, P.J. 1999. *The biology of mangroves and seagrasses*. Oxford University Press.
- Hollnsteiner, M., 1963. *The Dynamics of Power in a Philippine Municipality*. Quezon City: University of the Philippines.
- Hussain, S.A., and R. Badola. 2010. Valuing Mangrove Benefits: Contribution of Mangrove Forests to Local Livelihoods in Bhitarkanika Conservation Area, East Coast of India. *Wetlands Ecology and Management*, 18:321-331.
- Ibarra, J. T., Barreau, A., Campo, C. D., Camacho, C. I., Martin, G. J., & McCandless, S. R. 2011. When formal and market-based conservation mechanisms disrupt food sovereignty: impacts of community conservation and payments for environmental services on an indigenous community of Oaxaca, Mexico. *International Forestry Review* 13(3), 318-337.
- Jackson, C. 1993. *Doing what comes naturally? Women and environment in development*. *World Development* 21(12): 1947-1963.
- Kasuya, Y. & Quimpo, N.G. (eds.). 2010. *The Politics of Change in the Philippines*. Pasig City: Anvil Press.
- Kerkvliet, B.J. 1995. Toward a more comprehensive analysis of Philippine politics: Beyond the patron-client, factional framework. *Journal of Southeast Asian Studies* 26: 401-419.
- Kondo, D.K. 2009. "Chapter 1: The Eye/I" in *Crafting Selves: Power, Gender, and Discourses of Identity in a Japanese Workplace*. University of Chicago Press.
- Landé, C. 1965. *Leaders, Factions and Parties: The Structure of Philippine Politics*. New Haven, CT: Yale University Press.
- Larrabee, M. J. 2016. *An Ethic of Care: Feminist and Interdisciplinary Perspectives*. Routledge.
- Lawrence, A. 2006. No personal motive? Volunteers, biodiversity, and the false dichotomies of participation. *Ethics, Place and Environment* 9:279-298.
- Li, T.M. 2007. *The Will to Improve*. Duke University Press.
- Long, N., & Villareal, M. 1994. The interweaving of knowledge and power in development interfaces, in I. Scoones and J. Thompson (eds.), *Beyond Farmer First: Rural People's Knowledge, Agricultural Research and Extension Practice*. London: Intermediate Technology.
- Lutz, C. & White, G.M. 1986. The anthropology of emotions. *Annual Review of Anthropology* 15: 405-436.
- Mangahas, Maria. 2004. Compradores and fishers: Poverty, community, and market in the periphery (Samal Island, Davao Gulf). *Pilipinas: A Journal of Philippine Studies* 43(1).
- Maypa, A.P., A.T. White, E. Cañares, R. Martinez, R. Eisma-Osorio, P. Aliño, and D. Apistar. 2012. Marine protected area management effectiveness: progress and lessons in the Philippines. *Coastal Management* 40:510-524.

- MCP. 2018. "About Marine Conservation Philippines." Retrieved from <https://www.marineconservationphilippines.org/about-marine-conservation-philippines/>. Accessed March 10, 2019.
- Mosse, D. 2004. *Cultivating Development: An Ethnography of Aid Policy and Practice*. London: Pluto Press.
- Nightingale, A. 2006. The nature of gender: Work, gender, and environment. *Environment and Planning D: Society and Space* 24(2): 165-185.
- Olsson, P., C. Folke, and T. Hahn. 2004. Social-ecological transformation for ecosystem management: the development of adaptive co-management of a wetland landscape in southern Sweden. *Ecology and Society* 9:2-27.
- Pelras, C. 2000. Patron-client ties among the Bugis and Makassarese of South Sulawesi. In B. Tot de Taal & L. Volkenkunde (eds.), *Authority and Enterprise Among the Peoples of South Sulawesi*, Vol. 156. pp. 588-617.
- Perreault, T. 2018. Mining, meaning and memory in the Andes. *The Geographical Journal* 184: 229-241.
- Pert, P. L., Lieske, S. N., & Hill, R. 2013. Participatory development of a new interactive tool for capturing social and ecological dynamism in conservation prioritization. *Landscape and Urban Planning* 114: 80-91.
- Platteau, J.P. & Nugent, J. 1992. Shared contracts and their rationale: lessons from marine fishing. *Journal of Development Studies* 28: 386-422.
- Polgar, S. 1979. Applied, action, radical, and committed anthropology. In R. Hinshaw (ed.) *Currents in Anthropology: Essays in Honor of Sol Tax*. New York: Mouton.
- Pollnac, R., and T. Seara. 2011. Factors influencing success of marine protected areas in the Visayas, Philippines as related to increasing protected area coverage. *Environmental Management* 47:584-592.
- Pomeroy, R. S., Pollnac, R. B., Katon, B. M., & Predo, C. D. 1997. Evaluating factors contributing to the success of community-based coastal resource management: The Central Visayas Regional Project-I, Philippines. *Ocean & Coastal Management* 36(1-3), 97-120.
- Pretty, J.N. 1995. Participatory learning for sustainable agriculture. *World Development* 23(8): 1247-63.
- Primavera J.H., J.D. Savaris, B. Bajoyo, J.D. Coching, D.J. Curnick, R. Golbeque, A.T. Guzman, J. Q. Henderin, R.V. Joven, R.A. Loma, and H.J. Koldewey. 2012. Manual on community-based mangrove rehabilitation. Mangrove Manual Series No. 1. London, UK: ZSL.
- Primavera, J. H. 2000. Development and conservation of Philippine mangroves: institutional issues. *Ecological Economics* 35:91-106.
- Primavera, J. H., and J.M.A. Esteban. 2008. A review of mangrove rehabilitation in the Philippines: successes, failures and future prospects. *Wetlands Ecology and Management* 16:345-358.
- Primavera, J.H., B. Resurreccion, M.J. Sadaba, H.L. Leбата, and J.P. Altamirano. 2004. *Handbook of Mangroves in the Philippines*: Panay. SEAFDEC.
- Rafael, V.L. 1988. *Contracting Colonialism: Translation and Christian Conversion in Tagalog Society under Early Spanish Rule*. Quezon City: Ateneo de Manila University Press.
- Reed, M.S. 2008. Stakeholder participation for environmental management: a literature review. *Biological Conservation* 141:2417-2431.

- Reed, M. S., Dougill, A. J., & Baker, T. R. 2008. Participatory indicator development: what can ecologists and local communities learn from each other. *Ecological Applications* 18(5): 1253-1269.
- Richards, D.R., and D.A. Friess. 2016. Rates and drivers of mangrove deforestation in Southeast Asia, 2000–2012. *Proceedings of the National Academy of Sciences of the United States of America* 113:344-349.
- Robbins, P. 2011. *Political Ecology: A Critical Introduction*. John Wiley & Sons.
- Rosaldo, M.Z. 1984. Toward an anthropology of self and feeling. In R.A. Schweder & R.A. Levine (eds.), *Culture Theory: Essays on Mind, Self, and Emotion*. Cambridge, UK: Cambridge University Press. pp. 137-157.
- Rosaldo, R.I. 1984. Grief and a headhunter's rage: On the cultural force of emotions. In S. Plattner & E. Bruner (eds.), *Text, Play, and Story: The Construction and Reconstruction of Self and Society*. Washington, DC: American Ethnological Society. pp. 178-195.
- Ruddle, K. 2011. 'Informal' credit systems in fishing communities: issues and examples from Vietnam. *Human Organization* 70: 224-232.
- Sanbrook, R. 1972. Patrons, clients and factions: new dimensions of conflict analysis in Africa. *Canadian Journal of Political Science* 5(1): 104-119.
- Schaffelke, B., J. Mellors, and N.C. Duke. 2005. Water quality in the Great Barrier Reef region: responses of mangrove, seagrass and macroalgal communities. *Marine Pollution Bulletin* 51:279-296.
- Schuller, M. 2012. *Killing with kindness: Haiti, international aid, and NGOs*. New Brunswick, N.J.: Rutgers University Press.
- Scoones, I. 2015. *Sustainable Livelihoods and Rural Development*. Rugby, Warwickshire, UK: Practical Action Publishing.
- Scoones, Ian. 2015. *Sustainable livelihoods and rural development*. Blackpoint, Nova Scotia: Fernwood Publications.
- Scott, J.C., & Kerkvliet, B.J. 1977. How traditional rural patrons lose legitimacy: A theory with special reference to Southeast Asia. In S.W. Schmidt (ed.), *Friends Followers and Factions: A Reader in Political Clientelism*. Berkeley (CA): University of California Press.
- Scheper-Hughes, N. 1993. *Death Without Weeping: The Violence of Everyday Life in Brazil*. Berkeley, CA: University of California Press.
- Scott, W.H. 1983. Oripun and alipun in the Philippines. In A. Reid (ed.), *Slavery, Bondage and Dependency in Southeast Asia*. St. Lucia: University of Queensland Press.
- Stone, K., M. Bhat, R. Bhatta, and A. Mathews. 2008. Factors influencing community participation in mangroves restoration: A contingent valuation analysis. *Ocean and Coastal Management* 51:476-484.
- Sudarmono, S.J., & Bakar, N.R.H.A. 2012. Patron-client relationship of urbanized fishing communities in Makassar. *International Journal of Social Science, Economics, and Art* 2(2): 1-5.
- Szanton, D.L. 1971. *Estancia in Transition: Economic Growth in a Rural Philippine Community*. Quezon City: Ateneo de Manila Press.
- Teves, L.B. 2000. *Sociocultural Dimensions of People's Participation in Community-Based Development: The Role of Patron-Client Systems in the Philippines*. Witzhausen: Deutsches Institut für Tropische und Subtropische Landwirtschaft GmbH.
- Trost, J.E. 1986. Statistically nonrepresentative stratified sampling: A sampling technique for qualitative studies. *Qualitative Sociology* 9:54-57.
- Tsing, A.L. 2011. *Friction: An Ethnography of Global Connection*. Princeton University Press.

- Turgo, N. 2016. 'Laway lang ang kapital' (Saliva as capital): Social embeddedness of market practices in brokerage houses in the Philippines. *Journal of Rural Studies* 43: 83-93.
- Walmsley, S. F., and A.T. White. 2003. Influence of social, management and enforcement factors on the long-term ecological effects of marine sanctuaries. *Environmental Conservation*,30:388-407.
- Walters, B.B. 1997. Human ecological questions for tropical restoration: experiences from planting native upland trees and mangroves in the Philippines. *Forest Ecology and Management* 99:275-290.
- Wolf, E. 2004. Kinship, friendship and patron-client relations in complex societies. In M. Banton (ed.), *The Social Anthropology of Complex Societies*. Banton. pp. 1-22.
- Wolters, W. 1983. *Politics, Patronage and Class Conflict in Central Luzon*. The Hague: Institute of Social Studies.
- World Bank. 1996. *The World Bank Participation Sourcebook*. Environment Department. World Bank, Washington, DC.

Sources for Mangrove Icons (in order of appearance)

- Karim, Abdul. Mangrove Tree. Accessed December 6, 2018 from <https://thenounproject.com/term/mangrove-tree/1384840/>
- Dumilauxepices.net. Mangrove Clipart Logo. Accessed December 6, 2018 from <https://dumilauxepices.net/wallpaper-2102764>
- kareemovic. Mangrove. Accessed December 6, 2018 from <https://thenounproject.com/search/?q=mangrove&i=1903188>
- Sarah. Mangrove. Accessed December 6, 2018 from <https://thenounproject.com/search/?q=mangrove&i=1629937>