

AN ABSTRACT OF THE THESIS OF

Donald R. Ulrich for the degree of Master of Science in Forest Ecosystems and Society presented on December 3, 2014.

Title: Challenges to Stakeholder Participation in Coastal Resource Management: Allen, Northern Samar, Philippines

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Collaborative management of subsistence fisheries in the Philippines requires policies that devolve authority to the local level. This involves creating mechanisms to hold managers accountable for creating opportunities for active participation by fisher folk communities. The Philippines has created a comprehensive national framework for the co-management of coastal resources at the municipal level but has generally failed to establish checks on local authority. This has allowed municipal governments to operate with little incentive to create meaningful opportunities for participation in management.

The goals of this research were to identify the extent and nature of stakeholder participation in resource management, and to determine how municipal efforts at co-management could more effectively utilize stakeholder participation in management and development. Research was carried out in the form of a holistic single-case study and guided by the following objectives; 1) identify the role of stakeholder participation in the coastal resource management process, 2) identify the role of participatory spaces in resource use decisions among stakeholders, and 3) identify what factors affect stakeholder participation in coastal resource management decisions

This study shows that the socio-political context for fisherfolk in Allen is characterized by marginalization. This manifested in two significant ways; geographic marginality from living on the publically owned coastal buffer, and an inability to access the benefits of economic development. A decentralized management strategy in the Philippines has created smaller, dispersed top-down processes in Allen that appear to push out stakeholders by moving projects unilaterally from management agency to community recipients. At the same, fisherfolk's access to projects and management processes is hindered by corruption, a lack of perceived benefit for the effort required to participate and a lack of stakeholder trust in the process.

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Challenges to Stakeholder Participation in Coastal Resource Management: Allen, Northern
Samar, Philippines

by

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Donald R. Ulrich, Author

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CONTRIBUTION OF AUTHORS

The second chapter is prepared as draft manuscript to be submitted to journals for publication. The first author is Donald Ulrich and the second author is John Bliss. Donald Ulrich conducted field research, primary analysis of data and drafted the manuscript. John Bliss assisted in research design and provided editorial guidance throughout the writing of this document.

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CHAPTER 1. GENERAL INTRODUCTION

Small scale, low technology fishing directly employs tens of millions of people, and millions more indirectly. It comprises 90% of all fishing jobs worldwide, approximately 45% of the world's fisheries, and almost 25% of the global catch (United Nations Environment Program, 2004). These fishers are also operating in some of the biologically richest and most sensitive waters. The interactions between ecosystems and communities dependent on natural resources make management and conservation difficult. In the Philippines, annual fish consumption is over 88 pounds per person, providing the primary protein source for the country (*State of World Fisheries and Aquaculture 2014*, 2014).

The Philippines has had a long history of external control, having been colonized by western powers for hundreds of years and only after World War 2 achieving independence. The various international influences on resource use and management undoubtedly influence modern perspectives on community relationships with the environment. The country was first discovered by Magellan in 1521 when he landed on the island of Samar, where this research also took place. Magellan was killed in the Philippines ending his circumnavigation of the globe.

Colonization also began a steady change in the management of fisheries and a progressive development of these resources for commercial use. During Spanish rule, colonial governments assumed ownership of fish corrals, leasing them to back to individuals such as local chiefs. The arrival of the Spanish also led to the growth of population centers, leading to fishing specialization by coastal communities to supply

these growing markets. By the early 1900's China and Japan were sending foreign fleets to Philippine waters to develop export markets through intensive methods such as gill netting, laying the basis for the later development of large-scale commercial fishing (Spoehr 1984).

In the Philippines, "fishing community" has been used to specify a range of specialization among the community, from fishing as a supplementary pursuit during the agricultural off-season, to technologically advanced, highly invested full time fisherfolk. These communities may also contain many non-fishing households (Smith, Puzon, and Vidal-Libunao 1980). Historically the Visayas have probably contained the highest concentration of fishing specialists (Eggan, Hester, and Ginsburg 1956).

After World War II, the technology of Filipino fisheries advanced rapidly, surpassing the advancements of all previous historical developments with the mechanization of fleets, advancements in net design and the development of night fishing through generated electricity. This marked a shift from passive to active gear as the dominant method in national fisheries (Spoehr 1984). During this time the introduction of explosives in small-scale fisheries also became widespread. The rationale behind the use of explosives in fishing was that it offered the highest immediate return for the cost, despite long term impacts on the fisheries and the livelihoods of fishers. The increasing capital costs of fishing technology has mirrored a trend towards the concentration of fishing units in fewer individuals and business firms for large-scale operations and a dispersion of the fishery among a much greater number of individuals among small-scale community coastal fisheries (Tan 1979). For these small-scale fishermen, developments

of and entrances into the fishery has led to “too many fishermen chasing too few fish.” With habitat degradation, overfishing, and increased dependency, the management and restoration of these small-scale fisheries has become an increasing concern.

The Philippine government began taking an innovative approach to these issues in the 90’s with the passage of key legislation at the national level. Since that time, the Philippines has seen an active period of intervention by both national agencies and non-government organizations, directed at developing community and government capacity for the collaborative management of coastal resources (Lowry, White, and Courtney 2005). This has largely been a response to the historical alienation of community stakeholders from resource management and the rapid decline of coastal ecosystems due to open-access type exploitation of the natural resources (Pomeroy and Carlos 1997).

Despite isolated success and ongoing efforts at sustainable, collaborative management, the Philippines has experienced limited recovery and conservation of coastal and marine resources with less than 1.5% recovery in all reefs from 1981 to 2010 and a decline during the period from 2006-2010 (White et al. 2006; Magdaong et al. 2014). This trend continues to undercut the livelihood resources of vulnerable subsistence populations along the Philippine coasts.

The historical legacy of centralized, “command-and-control” management trend has been a reduction in natural redundancy and ecosystem structures in favor of efficiency and simplicity in managed social-ecological systems (Holling and Meffe 1996; B. Walker et al. 2002). This results in systems that are susceptible to shifts in regimes when faced with unforeseen human or natural disturbance (Walker and Salt 2006). It is

this issue of rigidity and inability for an inflexible national agency to respond to local issues in fisheries that has led to efforts and decentralization and community-based legal management frameworks.

National efforts at integrated management reflect global trends towards stakeholder involvement and ecosystem-based management objectives. The Philippines formalized this approach through a series of comprehensive legislations, most notably the Local Government Code of 1991, Republic Act 7160, and the Philippine Fisheries Code of 1998, Republic Act 8550. The Local Government Code devolves management of municipal waters to the local government unit (municipal or city) with exclusionary rights out to 15 kilometers from the coast. The Philippine Fisheries Code clarifies the local government unit's jurisdictional rights and the authority to enforce laws through local coast guard units.

Despite progress frameworks provided by these legislative acts, there have been frequent failures in the country's coastal fisheries management. Numerous studies have documented the mixed results of fisheries management and their general failure to halt or even significantly slow ecological degradation in the region, or to provide equitable distribution of economic gains among the most vulnerable fisheries stakeholders (White et al. 2006; Agbayani, Baticados, and Siar 2000; Alcala and Russ 2006; Larsen, Acebes, and Belen 2011; Pomeroy, Katon, and Harkes 2001; Maliao, Pomeroy, and Turingan 2009). The causes for these failures are diverse, from elite cooption and absence of fisherfolk participation in all levels of the management process, to a lack of consideration

of local contexts when duplicating stakeholder management frameworks that were successful in other contexts.

The justification for continued effort at community-based management is based on the premise that local populations have a greater interest in resource sustainability and are more aware of local ecological processes than agents of the state, therefore making them better suited to manage resources (Brosius, Tsing, and Zerner 1998). This generalization has not always been the case though, with many resource dependent stakeholders and communities lacking a tradition of community-based management leaving them unprepared for the management responsibilities placed upon them. There are still numerous challenges in creating successful managers from local populations. Criticisms of the community-based management model generally focus on the mischaracterization of community by external development and management entities, and the failure to equitably distribute costs and benefits among stakeholders (Berkes 2004; Flint, Luloff, and Finley 2008; Kellert and Mehta 2000; Maryudi et al. 2012; McDermott 2009). The common three-legged stool of sustainable development, in which each leg is equal has been criticized by some researchers. McDermott (2009) suggested that the conceptual model of community-based management as a stool has failed to create realistic expectations.

CHAPTER 2. CHALLENGES TO STAKEHOLDER PARTICIPATION IN COASTAL RESOURCE MANAGEMENT: ALLEN, NORTHERN SAMAR, PHILIPPINES

Authors: Donald R. Ulrich, John C. Bliss

2.1 INTRODUCTION

The Philippines has had a long history of external control, having been colonized for hundreds of years and only after World War II achieving independence. The various international influences on resource use and management undoubtedly influence modern perspectives on community relationships with the environment. Colonization also began a steady change in the management of fisheries and a progressive development of these resources for commercial use.

During Spanish rule colonial governments assumed ownership of fish corrals, leasing them to back to individuals such as local chiefs. The arrival of the Spanish also led to the growth of population centers, leading to fishing specialization by coastal communities to supply these growing markets. By the early 1900's China and Japan were sending foreign fleets to Philippine waters to develop export markets through intensive methods such as gill netting, laying the basis for the later development of large-scale commercial fishing (Spoehr 1984).

After World War II, the technology of Filipino fisheries advanced rapidly, surpassing the advancements of all previous historical developments with the mechanization of fleets, advancements in net design and the development of night fishing through generated electricity. This marked a shift from passive to active gear as the dominant method in national fisheries (Spoehr 1984). During this time the introduction of

explosives in small-scale fisheries also became widespread. The rationale behind the use of explosives in fishing was that it offered the highest immediate return for the cost, despite long term impacts on the fisheries and the livelihoods of fishers. The increasing capital costs of fishing technology has mirrored a trend towards the concentration of fishing units in fewer individuals and business firms for large-scale operations and a dispersion of the fishery among a much greater number of individuals among small-scale community coastal fisheries (Tan 1979). For these small-scale fishermen, developments of and entrances into the fishery has led to “too many fishermen chasing too few fish.” With habitat degradation, overfishing, and increased dependency, the management and restoration of these small-scale fisheries has become an increasing concern.

In the Philippines, “fishing community” has been used to specify a range of specialization among the community, from fishing as a supplementary off-season pursuit during the agricultural off-season, to technologically advanced, highly invested full time fisherfolk. These communities may also contain many non-fishing households (Smith, Puzon, and Vidal-Libunao 1980). The members of these communities can be broadly categorized as fisherfolk, a classification currently in common use in the Philippines.

During the 1990’s the Philippine national government passed legislation to codify coastal resource management as a service provided by local governments, in a broad effort at decentralization in the management process. Since then the Philippines has seen an active period of intervention by both national agencies and non-government organizations directed at developing community and government capacity for collaborative management of coastal resources (Lowry, White, and Courtney 2005). This

has largely been a response to historical alienation of community stakeholders from resource management and a rapid decline of coastal ecosystems due to open-access type exploitation of the natural resources (Pomeroy and Carlos 1997). Stakeholders are broadly categorized as “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Mitchell, Agle, and Wood 1997). Early research suggested these efforts at collaborative management would require external partners during local program establishment (Alcala 1998). As these initial efforts concluded and partnering organizations withdrew support, many efforts to develop locally sustainable frameworks struggled to adhere to the goals and objectives of the national integrated coastal management plan (Eisma, Christie, and Hershman 2005). At the same time that local efforts floundered, the national legal framework for coastal resource management was considered progressive and a model for other nations developing devolved management systems in the region (White et al. 2006). However, a 2009 meta-analysis by Maliao et al. (2009) indicated a trend of collaborative management efforts in the Philippines still failing to meet their objectives. Despite isolated success and ongoing efforts at sustainable management, the Philippines has experienced limited recovery and conservation of coastal and marine resources with less than 1.5% recovery in all reefs from 1981 to 2010 and a decline during the period from 2006-2010 (White et al. 2006; Magdaong et al. 2014). This trend continues to undercut the livelihood resources of vulnerable subsistence populations along the Philippine coasts.

Therefore, this study sought to identify the role of stakeholder participation in the coastal resource management process, the role of participatory spaces (Classen et al. 2008; Mohanty 2004) in resource use decisions among stakeholders, and what factors affect stakeholder participation in coastal resource management decisions in the Philippine municipality of Allen.

2.1.1 From “Command and Control” to “Community-Based” Coastal Resource Management

A history of command-and-control management and the assumption of a dichotomy between manager and managed has led to a reduction in natural redundancy and ecosystem structures in favor of efficiency and simplicity in managed social-ecological systems (Holling and Meffe 1996; B. Walker et al. 2002). Limited redundancies consolidate resources and capital, restricting mechanisms to prevent the system from “tipping” beyond the point of recovery. This results in systems that are susceptible to shifts in regimes when faced with unforeseen human or natural disturbance (Walker and Salt 2006). For much of the 1900s natural resource management in the Philippines was under the purview of central government agencies (Lowry, White, and Courtney 2005). As decentralization of resource control began in the late 1900s in response to the failure of central agency management, there was a large move towards privatization of coastal resources. This came in the form of private industry (e.g., mariculture, mining, tourism) and in exclusive community fisheries under municipal jurisdiction. Without proper governance systems in place, though, there have been trends towards mismanagement and conflict in local resource management causing an increase in resource insecurity (Cabral and Aliño 2011).

The main effort towards management devolution in the Philippines has come in the form of administrative decentralization. This refers to a relocation of administrative function away from the state center to local government units. It is not necessarily accompanied by a complementary bottom to top framework for the distribution of resource management decisions (Enters, Durst, and Victor 2000). The Philippines has experienced numerous challenges in the effort to shift power to provincial and municipal level governments in such a way that would include the frameworks that hold local governments agencies accountable to stakeholders (Larsen, Acebes, and Belen 2011). This has led to an advanced structure without a process for its operation or a strategy that leads to the framework's meaningful implementation by local governments

2.1.2 Government Framework

National efforts at integrated management reflect global trends towards stakeholder involvement and ecosystem-based management objectives. The Philippines formalized this approach through a series of comprehensive legislations, most notably the Local Government Code of 1991, Republic Act 7160, and the Philippine Fisheries Code of 1998, Republic Act 8550. The Local Government Code devolves management of municipal waters to the local government unit (municipal or city) with exclusionary rights out to 15 kilometers from the coast. The Philippine Fisheries Code clarifies the local government unit's jurisdictional rights and the authority to enforce laws through local coast guard units.

Both pieces of legislation also attempt to institutionalize stakeholder participation by requiring the development of Fishery and Aquatic Resource Management Councils

and Peoples' Organizations at the municipal and barangay (smallest governmental unit) level (DENR and BFAR 2001). Fisheries and Aquatic Resource Management Councils are intended to provide a participatory space for fisherfolk (all fisheries sector participants vs. only the active fishers, *paru-pangisda* in Waray dialect, who directly capture or collect marine animals) and other resource users such as mariculture operators, in community-based planning and implementation of policies and programs for the management, conservation, development and protection of fisheries and aquatic resources in municipal waters (DENR & BFAR, 2001). Establishment of these councils has faced many challenges common to decentralized management with local administrative policies struggling to adhere to national laws. Republic Acts 7160 and 8550 provide a strong guiding framework for the councils but little incentive to adhere to it.

This lack of accountability and unilateral approach engendered by the decentralization policies in fisheries development has led to frequent failures in the country's coastal fisheries management. Numerous studies have documented the mixed results of fisheries management and their general failure to halt or even significantly slow ecological degradation in the region, or to provide equitable distribution of economic gains among the most vulnerable fisheries stakeholders (White et al. 2006; Agbayani, Baticados, and Siar 2000; Alcala and Russ 2006; Larsen, Acebes, and Belen 2011; Pomeroy, Katon, and Harkes 2001; Maliao, Pomeroy, and Turingan 2009). The causes for these failures are diverse, from elite cooption and absence of fisherfolk participation

in all levels of the management process, to a lack of consideration of local contexts when duplicating stakeholder management frameworks that were successful in other contexts.

2.1.3 Continuing Issues in Community-Based Coastal Resource Management

Community-based management is based on the premise that local populations have a greater interest in resource sustainability and are more aware of local ecological processes than agents of the state, therefore making them better suited to manage resources (Brosius, Tsing, and Zerner 1998). Historically, community-based management programs have often failed to achieve both economic development and environmental conservation under the same development program despite theoretical justifications of holistic outcomes in community-based frameworks (Kellert and Mehta 2000; Maryudi et al. 2012; McDermott 2009). Criticisms of the community-based management model generally focus on the mischaracterization of community by external development and management entities, and the failure to equitably distribute costs and benefits among stakeholders (Berkes 2004; Flint, Luloff, and Finley 2008; Kellert and Mehta 2000; Maryudi et al. 2012; McDermott 2009). McDermott (2009) suggests practitioners should be thinking about community-based management as a process that progresses in phases of development like the building of a house. One part has to be in the place before the next can proceed. This metaphor is appropriate in many cases of management framework assistance where the program may be put in place without consideration of a process for its implementation

When combined with a conceptual model such as Ratner and Allison's (Ratner and Allison 2012) three complementary perspectives on fisheries governance reform (see

figure 1), we are provided with a strong framework for understanding of necessary fundamentals in a specific case of community-based management. This model embodies the phases of development, with a foundation in the governance context focusing on representation, distribution of power, and accountability that provide the structure by which a socio-ecological system might be reformed, generating development outcomes. In the middle of the framework, where governance can work to affect outcomes, Ratner and Allison focus on the areas of wealth (resource, rents, market links), rights (tenure clarity, human rights) and resilience (vulnerability and adaptation). Whether or not a system employs governance in such a way as to address these issues determines how stakeholders will use the environment and their ability to generate certain types of economic, social and ecological outcomes. The points highlighted in this framework were reflected in several of the themes that emerged in analysis of this research's data.

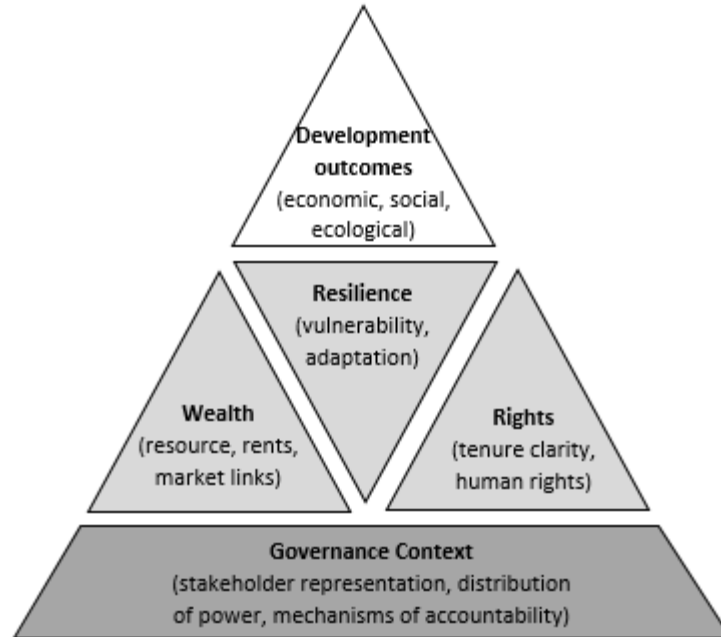


FIGURE 1. Ratner and Allison's (2012) framework comprising three complementary perspectives on fisheries governance reform provides an outline of the fundamentals necessary to progressive development towards economic, social, and ecological outcomes.

This is important because in cases of community governance frameworks there are no panaceas and each arrangement must reflect the local ecological and social context and perception of legitimacy by resource users (Ostrom and Cox 2010). Issues such as insecure land tenure, and rights to representation, underlie many faulty fundamentals upon which community management frameworks are being established. These issues are often overlooked despite being pillars of successful development outcomes (Gershon Feder and Feeny 1991). Insecure land tenure is an important variable in household and community vulnerability impacting overall livelihood strategies (Reale and Handmer 2011). In the Philippines, these issues of tenure long precede modern efforts at community-based coastal resource management (Motheral 1956). The political and social intractability of the issue have led to its persistence and its being overlooked.

2.1.4 Case Municipality

The town of Allen is located on the northwest tip of the Samar Island. It is separated from Luzon, the largest island in the Philippines and location of the capital Manila, by the San Bernardino Strait, which is traversed by several large vehicle ferries that call at ports in Allen and Matnog. Allen is considered the center of the Balicuatro District, which encompasses the eastern edge of the province and the encircling island municipalities. It has a land area of 10,579 hectares divided among 20 barangays or villages and an upland forest reserve. At the time of research, Allen was ranked a 5th class municipality, the second lowest ranking on the municipal scale (1-6 based on land area and revenue of the local government unit). The percent of poverty incidence was 43.7% in 2012 compared to the national average of 27.9%, and the subsistence incidence among families falls between 20 and 30% (Philippine Statistics Authority 2012). The 2012 population was 25,109 with the majority of the population living along the coast near the town center. The primary agricultural commodity in the municipality is copra (the dried kernel of coconuts) plantations, which cover 72.46% of the total agricultural land. The crop has been infested with coconut leaf beetle in recent years causing a decline in production. The municipality also encompasses 83.7 hectares of coral reef area. These reefs have on average a 33% live coral composition according to a 2007 municipal ecological survey. This is a “fair” ranking on the reef condition index commonly used in Southeast Asia (Edinger and Risk 2000). The reefs face many continuing risks, notable of which is “illegal extraction by big and influential personalities [for use] in their own businesses,” according to the 2012 municipal profile on record in Allen’s Municipal

Planning and Development Office. “Influential personalities” are most likely wealthy families that are community elites in the rural coastal barangays of the municipality.

The focus of the study was on the 13 coastal barangays of the municipality (see Figure 2), and primarily those classified as “rural”, as opposed to urban, although one focus group was conducted in Looc, an “urban” coastal barangay. Urban is a designation used by the municipality to indicate a barangay’s location in the *poblacion* or town center. An additional 7 barangays in the municipality are landlocked. There is nothing qualifying as a city (a classification of the national government) in the province although one can be reached in Western Samar to the south and most services and products are available in the provincial capital of Catarman 45 kilometers to the East.



FIGURE 2. Municipal boundary map of Allen, Northern Samar showing focus group barangays. Eastern edge of municipality is bordered by the ocean.

2.2 RESEARCH APPROACH AND METHODOLOGY

To identify the extent and nature of stakeholder participation in resource management and to determine how municipal efforts at co-management could more effectively utilize stakeholder participation in management and development activities, research was carried out in the form of a holistic single-case study. It was guided by the following objectives; 1) identify the role of stakeholder participation in the coastal resource management process, 2) identify the role of participatory spaces in resource use

decisions among stakeholders, and 3) identify what factors affect stakeholder participation in coastal resource management decisions. The geographic boundary of the study was the municipality of Allen although regional and national information was used to inform the phenomenon being examined. The phenomenon under examination was stakeholder participation in the planning and use of municipal coastal resources, focusing primarily on subsistence fisherfolks' livelihood strategies and the access and limitations presented by current management processes. The case-study structure was considered the most appropriate method to address the research questions. The municipality of Allen in the Province of Northern Samar was chosen for two reasons; the primary author's experience working in the municipality and across the province for two years on fisheries development as a volunteer in the U.S. Peace Corps' Philippine Coastal Resource Management program, and because the municipality of Allen provides an example of coastal resource management that has not received the level of external (both domestic and international) support that many of the more developed and researched regions of the country had.

A mixed method approach was taken to better triangulate and explore the topic. Interviews, focus-groups, participant observation, and examinations of ordinance and planning documents from Allen produced the bulk of data about how government managers and community stakeholders perceive the coastal resource management program in the municipality and the effect of participation on resource use and management decisions.

Interview participants were chosen purposively for their perspective on management frameworks and interactions between community members and government resource management agencies. Ten key informants were able and willing to participate in one-on-one interviews lasting from 30 minutes to 2 hours in length. Interviews were semi-structured with questions focused on relationships between the local government agencies and the community, the concept of “community,” types of involvement by government and non-government organizations, and the perceptions of fisherfolk activities. During interviews with key informants, a cognitive mapping exercise was used to facilitate discussion about the perceived structure of coastal resource management in the municipality, what the structure entailed, and who was involved (see figure 3). The Conceptual Content Cognitive Map developed by Kearney and Kaplan (1997) provided the basis for the mapping activity used during interviews. The method was successful, in the first author’s opinion, at facilitating discussions about management as a holistic process and for eliciting more reflective responses from interview participants.



FIGURE 3. Concept map produced by participant during interview.

Focus groups were conducted in 7 of the 13 coastal barangays in order to engage a greater number of participants in discussion around perceptions of coastal management activities in the municipality (see figure 2). This method was popularized in the mid-1900's as a quick, economical method for soliciting opinions on a point of discussion in complement or in place of complicated survey methods (Bernard, 2011). Participation ranged from 7 to 14 community members per focus group. Communities were generally designated at the barangay level, comparable to a district or neighborhood in a US town. Within each barangay we were interested in researching a specific community of coastal resource users, specifically the fisherfolk community. The focus groups were our method for gathering data on stakeholders who self-identified as being part of the occupational community of fisherfolk in a given barangay. Our focus on fisherfolk as the primary

stakeholder community of interest in Allen was a reflection of our opinion that they were the least able to affect management objectives but were most vulnerable to the negative consequences of the achievement of management objectives. Actual participation varied greatly from one barangay to another with some presenting several officials of some sort and others, the 7th in particular being mostly fishers. Focus group discussion was facilitated by one of two professors from The University of the Eastern Philippines with the assistance of graduate students.

In addition to formal research activities, the first author was able to attend the first provincial summit on coastal resource management held at the University of the Eastern Philippines – a meeting of the majority of the province’s municipal management agencies, and presidents or representatives of fisheries people’s organizations. Time was also spent as a participant observer in informal sessions with the mayor of Allen, both during social events and for the installation of an artificial reef project to which community leaders and volunteers from the port’s auxiliary coast guard were invited to assist.

Meetings and formal interviews were audio recorded and personal notes were taken. During informal interactions, field notes were taken as soon after as practical. Notes informed later analysis after data collection was complete.

Field data and existing documents were reviewed with the intention of creating an analytical description of the phenomenon being researched. Research activities were designed around specific questions, but the descriptive approach (Yin 2008 p. 131) proved to be the most useful for identifying appropriate causal links for further analysis.

Emergent themes were corroborated through reviews of existing literature and/or through the perspectives of multiple participants as well as the experiences and observations of the first author. The framework provided by Ratner and Allison (2012) proved useful in contextualizing observation and analysis in such a way as to provide constructive insight while answering the research questions. This contributed to the goal of generating management recommendations from the case study research, but could also be used as a guide in further research.

Research was conducted in a combination of Waray-waray and English depending on the comfort and ability of participants. Focus group recordings and interviews were transcribed by the first author and were translated as needed with the assistance of Professor Aina Delarosa, a native speaker of the Waray-Waray dialect of the Visayan family of languages. We then coded the transcripts with the software NVivo in order to identify themes that had emerged from discussions that pertained to the overall goal of this study. Multiple iterations of this process were conducted in order to develop a concise and relative set of codes that captured the variability of the data but also remained focused enough for further comparison and analyses.

2.3 RESULTS AND DISCUSSION

The objectives of this research were; 1) identify the role of stakeholder participation in the coastal resource management process, 2) identify the role of participatory spaces in resource use decisions among stakeholders, and 3) identify what factors affect stakeholder participation in coastal resource management decisions. Several

themes emerged from the analysis of the data that provided significant insights. These themes included: “participation” (with subtheme “obstacles to participation”), “stakeholder demographics,” and “resource use decisions.” These coded themes reflected on several sections of analysis that proved relevant to the research questions. When these themes are examined through the lens of Ratner and Allison’s framework (Figure 1) they suggest where challenges and opportunities exist in the efforts, both locally and in general, to establish community-based governance frameworks that engage stakeholders in developing positive, sustainable outcomes.

2.3.1 Social context of fisherfolk

The subsistence fisherfolk in Allen, the most direct dependents on coastal resources and key stakeholders in coastal resource management, are generally considered impoverished, reflective of national trends where the fishing sector has the highest rate of poverty incidence (Philippine Statistics Authority 2013). Participants in this study corroborated this trend repeatedly at the local level. This endemic poverty is partially tied to household location on the coastal buffer, exacerbating symptoms of marginalization through a lack of tenure clarity among communities and in enforcement of existing laws. The coastal buffer is legally municipal property, prohibiting the residents from owning the property and technically classifying them as squatters. One municipal agency employee explained this social and legal gray area as being a product of broader mechanisms, suggesting the coastal residents (generally fisherfolk households) accept the situation as reasonably secure. This is because coastal residents have *de facto* ownership unless an alternative development can outweigh the political and

financial cost of evicting an established neighborhood. The imposition by the government of their legal rights in situations like this can infringe on fisherfolk's perceived right to their home and community.

“They [fisherfolk] cannot own a lot because all of them [near-shore lots] are... already owned by some rich people. So they stay in the coastal area because it's property of the government. And they presume that they own that land.” – A2, July 23, 2013, personal interview



FIGURE 4. Ariel photograph of coastal development in Allen. Land on the coastal side of the road is site of proposed boardwalk. There is apparent conflict with existing private development.

Politicians and government agencies usually ignore these situations unless housing comes into conflict with larger development plans. An example of one such proposed plan in Allen is the Mayor's intent to develop tourism with the installation of a coastal boardwalk. The boardwalk would replace an existing neighborhood requiring the relocation of residents (see figure 4). Although the mayor has not yet implemented this development plan, consideration needs to be given to the population negatively affected,

predominantly non-land owning residents who represent the population most likely to depend on the harvest of natural resources and who are the most vulnerable in a case of displacement. Those most likely to capture the benefits of such a development are the capitalized land owners with the resources to make initial investments in the infrastructure required to run and maintain tourism facilities such as restaurants or private shops that enable them to extract rents from government development projects (Larsen, Acebes, and Belen 2011). This marginalization in distribution of development benefits is more than just geographic, targeting land-owners vs non land-owners, it is symptomatic of the larger socio-political framework. This marginalization manifests in several ways: Access to livelihood and other targeted pro-poor assistance from government agencies are often blocked by social and bureaucratic obstacles. In addition, the ability for subsistence households caught in a market economy to exercise electoral freedom is negligible in a country where vote buying is an open practice and prices for political allegiance often become the deciding factors in elections (Khemani 2013).

The insecurity fostered by these conditions of marginal living, both physically and socio-politically, appeared as one of the most telling results of this research. It drives fisherfolk livelihood strategies and limits the range of feasible alternative conservation strategies. The insecure access to rights and wealth puts fisherfolk in a vulnerable situation that affects the larger system and impedes efforts that depend on management alone to build sustainable outcomes. It also puts many communities in a situation where they are aware of the destructive practices of some fishers, including illegal practices, but

are unwilling or not inclined to take actions against those fisherfolk because of the perception of desperation in the case of the transgressors.

2.3.2 Stakeholder participation

How fisherfolk participate in the management of resources, whether formally or informally, has to be considered in light of these socio-political contexts and as the foundation of governance reform as outlined by Ratner and Allison's framework. In the case of Allen, coastal resource management is a relatively recent process. Organized efforts began around the time of the first biophysical survey in 2007 despite earlier existence of national efforts. Since then, there have been several efforts at stakeholder identification, engagement, fisheries regulation/management, and conservation. Despite an acknowledgement for the necessity of a community-based element for successful resource management by agency heads in the municipality, there has been a continuous trend towards community projects that are still run with a top-down framework. As a local professor with experience working for international development organization in the province put it, "projects are packaged in such a way that there is no room for community participation... the barangays and communities are viewed as an ends" (A3, July 4, 2013, personal interview). The professor is suggesting that communities are where projects happen, not partners that facilitate successful projects. Bureaucracy and politics has made the management framework opaque to fisherfolk without the relationships or institutional knowledge to navigate the many local and national programs implemented within the municipality. Despite being key stakeholders, fisherfolk are only seeing the end result, not the process that derived that result. As a result of only engaging the community in

the final stage, programs of Allen's management agencies with a history of stakeholder participation (licensing, ordinance dissemination, etc.) take on an instructive nature, informing stakeholders on laws, requiring registrations, or teaching the "right way" to take care of resources. This leaves the municipality with a structure for implementation but without the necessary processes in place with which to engage stakeholders. The lack of participation and mechanisms of accountability mean that fundamental aspects of the system are still yet to be implemented in the municipality.

This demonstrates the challenge that governments can face in disassembling top-down management through decentralization, and the even greater challenge of translating this process into a complementary growth of bottom-up management. The dynamics of municipal and barangay level politics are such that those with power often act as gatekeepers, restricting access to resources and assistance both to their own self benefit, and as a way to channel resources to those closest to them, whether family or supporters. In one case, the application processes for a distribution of outrigger canoes was not made public while a select few were told by local officials to go directly to the municipality to receive the distribution. As one barangay captain put simply, "I am the one who will choose the beneficiaries and who will be prioritized" (focus group 5, July 14, 2013.) A barangay captain serves as the executive level elected official for the barangay and often shoulders the cost of election personally. Choosing beneficiaries essentially establishes captains as powerful players in the community who control not only the influx of capital but access to external agents and development opportunities. This perpetuate a top-down governance and consolidates power at the top of the framework. From the point of view

of the dominant political process in the province, this makes sense as candidates who want to win at the barangay or municipal level must pay for their offices through vote buying and favors (“Cases of Vote-Buying Reported Nationwide | Inquirer News” 2014). A candidate expects to recuperate his or her investment while in office and since the salary of an elected official will not cover that, the access to public capital is channeled through contracting with family businesses, and social and economic power is established in the community where the politician is able to exercise his/her political power. These strategies are often lamented by lay people in casual conversation but are accepted as a matter of routine. This system of favors and back-door deals makes government operations difficult, if not impossible to navigate without political connections or the right capital to foster the necessary relationships. Making these connections requires going through social gatekeepers such as the barangay captain. Another illustrative example of this process witnessed during a visit to a local financial co-op was a prospective teacher who had asked a friend for money to pay an administrative official to process her teaching license. According to the teacher, she was told to “come back at four” meaning she had to return after the office had closed services for the day and pay four thousand pesos, which can be almost half of a month’s salary for a new teacher in the public school system. The teacher sought out the friend for advice following the above situation. These situations are illustrative of a governance that has few reliable mechanisms of accountability at the community level.

Community stakeholder’s wealth and resilience can also affect stakeholder’s ability to engage in the system of governance. This is a clear issue when financial

security becomes a strong incentive when deciding the price of political allegiance and the willingness to vote for long-term and pro-poor policies vs. the short-term, one time benefits of several hundred to a few thousand pesos paid for votes by some politicians. Khemani (2013) showed a strong negative correlation between spending on vote buying among municipal politicians and spending on the provisioning of primary health services, which disproportionately benefits the poor. The topic of vote buying is openly and commonly discussed in the province and was mentioned in many casual conversations about politics. One municipal official lamented the challenge in facing a party with a greater budget and the likelihood of winning if the current financial disparity among political parties remained during the next municipal election. Many in the province consider results from the last round of elections to be largely due to an influx of outside money in support of the previously minority party.

The lack of local accountability developed throughout the process of decentralizing national agency management is part of the reason that while management is happening closer to the local level, it is not a shift in the paradigm of resources being managed from the top-down. Instead, what has been observed in this region is a trend towards lots of smaller top-down processes, now taking place at the municipal agency's level who is mandated to provide these sort of management services. During one of the focus groups, a fisherman complained that when meetings or projects are conducted, the results are hollow, "Though they come and say something but it's just words. Nothing more..." (focus group 7, July 14, 2013). In situations where fisherfolk try to reach out to agencies on their own, another fisherfolk in the group suggested that, "they would still

ignore us even if we've got problems.” This kind of sentiment is also reflective of the general perception that many leaders are not trustworthy, whether they are politicians or government employees. A 2013 report by Transparency International on perceptions of corruption in the Philippines showed that 69% of respondents thought the police were corrupt/extremely corrupt and 64% felt public officials and civil servants were corrupt/extremely corrupt (“Global Corruption Barometer 2013 - National Results” 2014).

Several research participants from the fisherfolk community corroborated these feelings by expressing that they felt compelled to partake in management activities (e.g. licensing) that served no practical value to those being managed. In regards to participation in agency registrations and its lack of practicality, one fisherfolk said,

“For me, it's not right. Like what Noy said earlier, we pay for our equipment but in return they never help us with our problems. We are the ones who bought [the equipment], we are the ones who put investment and money on that. Like, if pirates would ask for your fishing boat engine, even if you have three licenses they would never mind at all nor ask you about it.” (focus group 7, July 14, 2013)

The sentiment being expressed by participants is that as fisherfolk, they are not partners in the livelihood programs, but more of a means to accomplish some political goal or management objective. This is an issue of accountability on the part of managers and politicians and a focus by agencies on outcomes instead of process. How fisherfolk are able to engage in project selection and design appears to be a key issue for management in Allen.

2.3.3 Management Agencies

For Allen's management agencies, the Municipal Planning and Development Office and the Municipal Agriculture Office, the shift towards collaborative or participatory management involves a shift from the expert manager towards an empowering-facilitator. This is primarily a process in distributing power that has been held by managers, among those who depend on the resources being managed. Agencies are aware of the pressure to make this shift but are unable to overcome the challenge of designing and implementing a process to bring about the transition. Both agency heads spoke of issues of empowerment, sustainability, and stakeholders acting as stewards of the natural resources which reflect an awareness of the need to change the governance context and its basis in further developments. When the agency heads spoke about strategies or proposed projects though, they continued to focus on legal dissemination, ordinance passage, or value trainings regarding issues of stewardship. This was part of a larger trend that surfaced in talking to management agency employees where projects, both past and proposed, focused on development outcomes instead of addressing the processes that lead to those outcomes. These weren't expressed with any sense of hypocrisy, but do seem to highlight a separation of program goals and the realities of the projects that will be implemented. These are top-down activities and instead of being a holistic approach, are still a series of individual activities that can be conducted by the agency without community buy-in. A local professor who had worked on development projects in the region expressed the cynical view that "Bottom-up community projects are run like a checklist and when the boxes are checked, the project is closed, a report is

written, and it is shelved to gather dust (A3, July 4, 2013, personal interview).”

Municipal agencies are not independently designing this transition process. Trainings for municipal managers are common and a guiding framework is made available from the national government for agencies that are developing their coastal management plans.

Many challenges for Allen’s agencies arose when local level dynamics created obstacles to smooth implementation of these generic templates that mandate certain programs but aren’t explicit in what processes are used to achieve the programs. This seemed to be creating an inclination towards “checklist programs” as a way to interact with the community but not necessarily engage them. Personal observations by the first author, both during previous time in the province and during research, confirmed this in many situations. One example involves the recently appointed Municipal Fisheries and Aquatic Resources Management Council Chairman. An active chairperson was required to attend a provincial meeting for the allocation of seaweed farm livelihood assistance projects. To meet this requirement that was intended to ensure the active participation of a stakeholder governance body, the agency head chose an employee of the Municipal Agriculture Office when they were supposed to be an elected representative chosen by stakeholders in the various coastal barangays. There are no barangay level councils, therefore there was no one to vote, and so the council was created out of department employees. This technically filled the requirement, which was only for the existence of the position and not for a specific process creating it, which reflects the previously expressed opinion that “boxes are checked.” Because of this approach, community livelihood assistance was qualified for and delivered but the community had not been

engaged or even involved, which is an example of the focus on outcomes versus the process that achieves the outcomes.

National agencies have tried to create incentives to encourage municipal agencies to invest in community engagement but these projects have not been immune to the types of challenges seen with projects such as the seaweed farm previously discussed. A national campaign by the national Bureau of Fisheries and Aquatic Resources to register all fisherfolk in the country called FishR was designed so that the technicians signing off on any new fisherfolk registration form would receive 15 pesos for each registration they completed (“BFAR FishR Press Release” 2014). This is a lucrative incentive to complete registrations but is susceptible to creating a situation conducive to dishonesty such as registering non-fishers just to collect the payment. When discussing with community members the distribution of assistance intended for fisherfolk, the fisherfolk themselves identified a common issue that could dilute the effects of a program such as FishR, “Even if you were a farmer you would say you were a fisherman” (focus group 7, July 14, 2013). The monetary incentive might encourage municipal technicians to overlook these non-qualified registrants. This compounds the problem because registration of non-fisherfolk qualifies the registrant for government assistance intended for fisherfolk and can lead to misallocation of resources. The founder of Northern Samar’s only provincial environmental development non-profit (Northern Samar Environmental Protectors) expressed the opinion that while these types of projects may be well meaning and may target issues with coastal resource management faced by local governments, they are not advancing programs toward the goal of building participatory, community-based

management. To make this progress would require preparing communities to be invested managers and not just resource users:

“[Coastal Resource Management] isn’t going to succeed as a project - based remedy or as a result of external intervention. Asking poor rural Filipinos to sustainably self-manage resources is asking them to adopt a whole new set of values and change their attitude towards the ocean and the environment in general.” (A7, Aug. 15, 2013, personal interview)

The challenge for agencies is not only in restructuring interactions with stakeholders, but also restructuring interactions with other agencies. A lack of coordination by the local government agencies can often impede efforts and create conflict. One agency manager expressed a frustration with using police to enforce municipal laws because:

“You know, it’s really difficult to control the area, the Philippines’ illegal activities, because the protector are the police officers – they have a share, a stake. One time the illegal quarrying of gravel and sand, I was scolded by Mayor in front of those illegalistas. ‘But Mayor my purpose, it is my duty to help control, to protect our natural resources.’ If they had permit... but no permit. You have no permit to quarry. I was scolded in front of these people because those people are his classmates, his batch mates.” (A2, July 23, 2013, personal interview)

The manager is suggesting that the police and politicians are, for various reasons, invested in the status quo, counter to the programs that municipal agencies are tasked with implementing such as halting illegal quarrying. Issues of accountability are not only between the public and government managers or politicians, but also between tiers of government and among different branches. The local social network and gatekeeper type political framework allows a politician, or figure of authority, to use their own discretion when enforcing a given law in their jurisdiction and they are often likely to use this

power to curry personal favors. There is no reliable mechanism for community elements marginalized by this system to hold these authority figures accountable. This is a common issue for a system that has devolved the responsibility to manage and enforce laws but has not instituted a clear system by which stakeholders can demand adherence (Larsen, Acebes, and Belen 2011). This impedes managers from doing their job because although they are appointed by national agencies, they operate under the purview of the elected municipal officials. This conflict comes to head in a very clear way when the executive uses power to block the agency and hinder their ability to perform their mandate.

This scattered effort to take on the management of coastal resources and the effort to engage fisherfolk in this process in some capacity highlights the need for a linear progressive strategy that lays down a foundation for each successive step. If agencies could bring stakeholders together in the development of certain fundamentals, then they could cooperatively engage in successive projects. As it stands, agencies are acting independently in an effort to juggle multiple efforts at once in the “check-list” approach and failing to overcome various obstacles.

2.3.4 Resource use decisions

The interaction of management agencies and stakeholders over Allen’s coastal resources creates both opportunities and obstacles that shape fisherfolks’ resource use decisions. Investigating these use decisions helps identify how apparent obstacles to participation and social contexts affect household livelihood strategies and broader development outcomes. The themes that arose in analysis regarding this issue were of

marginalization and a lack of trust and leadership within the community. Discussion around themes of marginalization and leadership often focused on livelihood assistance as a main service of coastal resource management that was of primary concern to fisherfolk.

Some government livelihood assistance strategies seek to develop alternatives to fishing, such as a swine husbandry program offered in Allen, a strategy that could reduce pressure on the resource as well as creating diversity and therefore more resilience in household livelihood strategies (Allison and Ellis 2001; Salayo et al. 2012). For many of the fisherfolk though, these are well meant but inaccessible due the physical marginalization created by the land tenure situation discussed previously: “Very few can avail of all those uh, assistance that they are going to give because some of our poor farmers have no area, no land” (A2 manager, July 23, 2013, personal interview). Even when funds are made available, the frustration over space can persist as one community member who had applied for a development grant noted, “The only problem we have is the site where we will put the project since we already have the fund (focus group discussion 2, July 20, 2013).” Public land is generally slated for higher return investments such as the boardwalk proposed by the mayor and livelihood assistance such as fish fingerlings for fish farm starts require pre-existing sites and are often co-opted by social elites within the municipality. Wealthier families run most of the fish farms in Allen and the general sentiment seemed to be that fish farms were unprofitable unless subsidized through the fingerling distributions and similar programs. One guest speaker at the provincial coastal summit, an invited environmental attorney known for his work in

Palawan, described the system as, “fishponds for the few, slow death for the many.” This quote hyperbolizes but reflects the sentiment of other interviewed community developers working with subsistence households, that wealthy stakeholders are capturing livelihood assistance intended for poor natural resource dependent households. This is another example of how the distribution of power among social elites is used to capture and control development outcomes and resources intended for governance reform and the wealth and rights of vulnerable fisherfolk communities.

For those who turn to illegal methods such as undersized nets and active gear, in contrast to the more sensational methods of cyanide spraying and dynamite, there is even a level of sympathy among both fishers and managers. The common saying goes that fisherfolk are “thinking with their bellies” and are therefore just doing what they need to in order to get by. Fisherfolk are in a situation where little choice is afforded, “They understand but they ignore it [the environmental/legal consequences of their activities] – for their livelihood, for their survival (A2 July 23, 2013, personal interview).” This statement, shared by an agency manager, is a counter opinion to her office’s strategy of passing more laws and informing the fisherfolk of an already well-understood environmental situation.

One interview participant, who served as a community leader for fisherfolk in his barangay, expressed the sentiment that illegal fisherman should be compensated for illegal gear before he would feel comfortable holding them accountable to current laws. He suggested that individual contracts for material assistance that forbid use of illegal methods in the future would provide better community justification for enforcement by

himself and within the barangay. In his opinion, unless a contract can be perceived as existing between the community and the recipient of assistance, then a breach against municipal law is excusable given the challenges faced by fisherfolk households and the relation they often have with volunteer community fish wardens. This participant expressed ideas that may have been atypical among fisherfolk due to his experience outside of the community and the fishing sector. He had served in the Philippine military and returned to his home barangay after retirement to work in fishing. He had financial security and thus, the free time to invest in leadership, serving as the fisherfolk representative for his barangay, and regularly interacting with the municipality when they sought out community representatives.

Many fisherfolk in the municipality, including those using illegal methods, take a diverse strategy towards subsistence that supplements fishing with either farming or an unskilled labor position such as bike-cab operator, laborer, or tenant farmer. Environmental and fishery declines have made non-intensive methods too unproductive to sustain a household on fishing alone because "... the fisherfolk's income in fishing is not sufficient [they have other] part time jobs *ano*, [fishing is a] part time job (A4, July, 29, 2013, personal interview)." An individually diverse strategy is not necessarily reflective of more intensive fishers who have made larger capital investments and are able to fish more efficiently with large boats and powerful motors – household or family capital often making this investment possible by providing economic diversity at the household level instead of the individual level. A highly invested strategy means clearing initial investments in order to profit from a day's work traveling to more productive

offshore fisheries. For the part-time fisher using primitive gear, drifting among low return jobs provides the most security when exposure to risk is frequent and high. Selling labor may not provide a living wage for a household and the local ecosystem is too degraded to provide a reliably marketable catch or consistently healthy diet.

Supplementing gaps in livelihood strategies is also an informal system of money exchange that usually happens between family members. It is not uncommon though, to find a line of hopeful borrowers waiting outside the Mayor's compound to ask for "favors" for either emergency travel or some sort of financial relief. As one fisherfolk said, "The Mayor would usually personally give us whatever he can." (focus group 7, July 14, 2013) This is a way the mayor maintains supporters and curries a favorable public perception. These political favors are not reliable and so an unregulated loan system exists where money can be borrowed at unfavorable rates. These loan agents are called "five and six-ers" because a common transaction is to loan 5,000 pesos and charge 1000 pesos interest on the repayment – it provides short term cash to deal with unexpected shocks but can perpetuate a level of indebtedness in relation to level of vulnerability and amount of alternative assets, although transactions are flexible and are not looked upon negatively by the community (Fafchamps and Gubert 2007). More favorable rates can be had through community financing co-ops or banks but these often require documentation or collateral that fisherfolk do not have. Obstacles to building capital stagnate economic development among fisherfolk and can create situations where short-term debt becomes more pressing than long-term resource management.

Framing a discussion with fisherfolk in terms of long-term investment or municipal planning does not seem practical for households that are more preoccupied with the most basic staples of daily life. Fisherfolk are aware of fisheries decline and have had to make adjustments in gear and overall strategy out of a sense of necessity over the last decades. Muallil et al (2014) showed a positive correlation between the amount of time in fisheries and the fishers' perception of decline which exceeds that of current management stock assessments (see figure 5). The general decline in the coastal resources of Allen exacerbates this situation of short-term returns without long term goals for subsistence fishers and requires intensive fishers to make a greater investment of time and effort for smaller and lower quality returns of fish.

“[Fishing] is a little slow compared to before... it's a big difference. Before we could get 30 kilos of fish but now, it would be lucky if we got five kilos. Plus gasoline. If you don't have enough patience you will never have any income at all (focus group 7, July 14, 2013).”

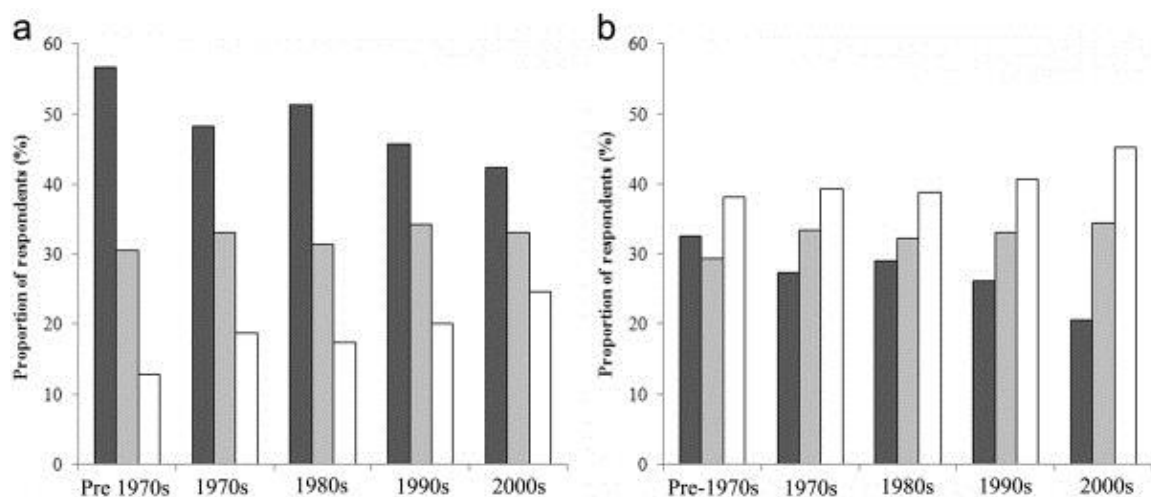


FIGURE 5. (Table from Muallil et al 2014) The condition of the current fishery compared to the levels of the last five decades based on (a) "qualitative" and (b) "quantitative" estimates. Dark gray, <50% of past levels; light gray, lower to 50% of past levels; white, same or higher than past levels.

This situation of vulnerability and the context in which fisherfolk must operate ultimately determines the resource use decisions they make and how they decide to form their livelihood strategy. In Allen, these decisions are generally formed from a position of insecurity attributable to situations previously discussed and from a sense of desperation in regards to livelihood derived from the coastal fisheries. Focus group participants did not speak of investment, or long-term planning but approached their professions as a daily undertaking where one had to “strive hard individually to survive” (focus group 7, July 14, 2013). Fisherfolk are vulnerable and because of larger dynamics, such as economic and geographic marginalization, are forced to continue investing their limited resources in a declining ecosystem because they lack the adaptive capacity to seek out alternatives.

2.4 CONCLUSION

This study suggests that while the Philippines may often be lauded for its progressive legal framework at the national level, local governments in charge of resource management are struggling. They appear, especially in this case, to be failing to halt ecosystem degradation and at creating opportunities to lift those most dependent on the ecosystem out of social, economic and geographic marginality.

Looking at the Ratner and Allison framework we have used throughout this analysis we see that while there is a governance structure in place, the governance context that forms the basis for further reforms is not conducive to the integration of stakeholders into a participatory process. Our analysis suggests that stakeholder representation is limited, power is consolidated and controlled by social and political elites, and mechanisms to hold managers and politicians accountable are few and difficult for fisherfolk to access. When we examine the three complementary perspectives on governance reform (wealth, resilience, rights) we find that fisherfolk, (particularly low technology, subsistence fisherfolk) are marginalized from almost all processes that would enable them to shape positive development outcomes. In regards to wealth, the resource is degrading, rents from coastal areas are minimal for those without the capital to develop them, and market links don't exist for those without the resources to capture high grade, exportable fish. Fisherfolk rights in general are also marginalized in regards to their position on the government owned coastal buffer where fisherfolk lack tenure or the right to develop the land. This position leads to the risk of losing basic rights to community and security through displacement by the government. This creates a situation where

fisherfolk are vulnerable physically, socially and economically without the capital needed to adapt and make transitions in response to a shifting social landscape. This focus on governance structure versus process exacerbates marginalization of fisherfolk stakeholders, leading to negative economic, social and ecological outcomes that disproportionately affect the most vulnerable, compounding the issues and driving a cycle of marginalization.

These issues may stem in large part because of the history that fisherfolk have had with the coastal and marine resources. Fishing was developed as a resource extraction sector for export and subsistence fisherfolk have no history or cultural basis for self-managing, or collaboratively managing the resource. This isn't a situation conducive to the reforms of the 90's that decentralized management and put the impetus to manage on local governments in collaboration with coastal stakeholders. What local governments like Allen, and across the country in general received was a management framework without the social evolution to fill it out, or in other words, the community-based management structure without a community engagement process.

Decentralized management in the Philippines has created smaller, dispersed, top-down processes that in Allen appear to push out stakeholders by moving projects unilaterally through the management framework. This is in part due to a reliance on standardized models made available to municipal agencies that do not accommodate community dynamics. This approach to management is increasing pressure on fisherfolk without providing relief due to the inaccessibility of livelihood assistance. Therefore, coastal communities as a whole, not just among fisherfolk specifically, are generally

more sympathetic to the plight of fisherfolk than to municipal laws concerning coastal resource management. Subsequently degraded resources, due in part to the inability of agencies to engage stakeholders in management, are forcing fisherfolk to stitch together complicated livelihood strategies out of several unreliable sources, making long-term planning impractical.

If the goal of community-based coastal resource management efforts is to create an empowered fisherfolk community that can contribute in a real way to a sustainable coastal socio-ecological system, then a change in the management process needs to take place. The challenge for agencies as well as coastal stakeholders is how to shape a policy that can create a more resilient coastal ecosystem, and a more resilient community to partner with in managing it. While issues of poverty and corruption will make these policies difficult to successfully implement, they are not insurmountable obstacles. There are tangible strategies that would assist in reaching a more socially and environmentally sustainable management framework (see Table 1).

1. Holistic guiding structure	<p>A. CRM working group</p> <ul style="list-style-type: none"> - Leadership separate from agency heads. - Registered with Provincial Environment and Natural Resource Office (PENRO) <p>B. Working group training in community organizing and goal/objective development for all members</p> <p>C. Reporting Structure and annual all-group workshop with PENRO on schedule and re-examination of annual goals.</p>
2. Stakeholder representation with access to management framework	<p>A. Community campaign on purpose and benefits of BFARMCs</p> <p>B. CRM working group facilitated development of BFARMC</p> <p>C. BFARMC review of existing fishery development policy, and programs</p> <ul style="list-style-type: none"> - Elected representative on CRM working group (funded)
3. Alternative to fishing	<p>A. Livelihood Database</p> <ul style="list-style-type: none"> - Project skills requirements <p>B. Livelihood trainings tailored to specific assistance programs</p> <p>C. Collaboration between Managers and BFARMCs</p> <ul style="list-style-type: none"> - CRM working group facilitates access to external livelihood programs - BFARMC facilitates organization of and application by stakeholders
4. Long-term investments	<p>A. Mechanisms for equitable distribution of benefits derived from coastal development</p> <p>B. Broader environmental issues</p> <p>C. Re-visit planning process to update goals and objectives based on progress and developing needs.</p>

TABLE 1. Goals and objectives for the engagement of stakeholders in municipal development of coastal management programs

This table of recommendations attempts to address the issues raised with the consideration of a phase based approach to development such as Ratner and Allison's perspectives on fisheries governance reform. The specifics of these programs will depend on developing local context, and are not intended to overcome all obstacles to sustainability, but provide a foundation on which to build successive programs. In general

there appear to be several areas that leaders in Allen could focus on including: 1) Municipal coastal resource management programs need to have a holistic guiding structure. This includes a designated working group for the program that has been trained on project development and community organizing and reports to an external agency tasked with maintaining accountability. 2) Barangay Fisheries and Aquatic Resource Councils (BFARMC) have to be created in such a way that they serve their intended purpose of representing fisherfolk and provide a voice for stakeholders in the management process. 3) In addition to ensuring an open and transparent dialogue between managers and stakeholders, impacts on coastal ecosystems need to be mitigated by relieving pressure caused by fishing as a primary source of protein and livelihood. This process needs to be coordinated by managers who facilitate access to external livelihood programs and the BFARMCs who facilitate the organization of and application by stakeholders for livelihood assistance. 4) Finally, investment in ecosystem health and sustainable social development needs to be considered in the long-term. Mechanisms for the equitable distribution of the coastal commons need to be in place, coastal and other ecosystems need to be considered in relation to one another, and resilience of systems to a changing landscape must be a part of all planning. Coastal resource management is an iterative process and as the first three phases are completed, managers and stakeholders will have to examine goals and objectives to ensure they are reflective of the needs of stakeholders and objectives of managers. Development outcomes are a product of a governance context that includes stakeholder representation, distribution of power, and mechanisms of accountability (Ratner and Allison 2012). It is on this foundation that

communities can develop alternative livelihoods that have meaningful economic, social, and ecological outcomes. A strong foundation would ideally allow fisherfolk communities to engage in development activities independent of external support. It would also allow them to become investors in the long-term conservation and restoration of coastal ecosystems, building wealth, resilience and exercising rights that create development outcomes beneficial to coastal ecosystems and the fisherfolk who depend on them.

These programs do not address issues of land tenure, a nationwide issue driven by social and economic factors external to this research, or political corruption. However, they do seek to engage and empower fisherfolk, which if successful would better enable fisherfolk to implement a process through which they involve themselves in the community-based management structure. Currently, Fisherfolk in Allen are caught in a poverty trap fueled by a marginalized situation in which fisherfolk lack the ability to assimilate or mobilize the economic and social capital necessary to undertake positive changes to their livelihood strategies (Carpenter and Brock 2008). Only by engaging in the management process that has been developed, or developing an alternative, can they assimilate capital in such a way as to break the cycle of poverty and marginalization.

A failure to achieve sustainable community-based management is not indicative of an inability to achieve these goals, but the common justification for community-based management predicated on the idea that those closest to the resource are best suited to manage it because of their experiential knowledge is inadequate and has to be qualified with an understanding of the complex social and ecological context. While “vulnerable

people do not make the most effective and motivated resource stewards (Allison et al. 2012),” if a process exists to create empowered stakeholders, then there is potential to create a community that is able and interested in investing in its own future and the future of its coastal resources. .

The broader considerations of this research reflect on the Philippines’ attempt to implement community-based management as an alternative to centralized-agency based management. Allen’s case is illustrative of general implementation of a management structure from the top-down, without evolving the social mechanisms to make the implementation of that structure feasible. Communities do not make good resource managers because they are told to do so, or because nobody else is doing an adequate job. The oversimplified justification of resource users making good managers because of experiential knowledge seems to have been extended too far in this case, and more effort needs to be invested in considering how resource users *become* resource managers. Successful community-based management requires certain social institutions to be in place in the community of concern and this process is evolutionary. The Philippines has quickly moved to the legal framework that supports community efforts without first identifying and developing those opportunities and the potential for those opportunities. Just as community-based management is a bottom-up framework, its design and implementation needs to be a bottom-up process. As the popularity of community-based natural resource management continues to grow globally, these issues need to be considered in all instances of its development and application.

2.5 CITATIONS

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CHAPTER 3. GENERAL CONCLUSIONS

This research project was intended to identify obstacles with the purpose of formulating direct management recommendations that could be applied by the community of study. This came from both my experience in the region as a volunteer with the US Peace Corps and my desire to pursue an applied career in resource management. While much of what I designed my project on was theoretical, I do believe that collaborative resource management is often treated too nebulously, since it is a very real and promising framework for communities struggling first hand with resource management issues. Isolating coastal management in Allen from the broader spectrum of issues in the region and the Philippines at large would be inappropriate, but I do try to keep this paper and this project in a scope that is manageable for both myself and for creating a tangible set of recommendations.

What this study showed is that while the Philippines may often be lauded for its progressive legal framework at the national level, and may often claim to be the center of the center for marine biodiversity, local governments in charge of resource management are struggling. They appear, especially in this case study, to be failing to halt ecosystem degradation and at creating economic opportunities to lift those most dependent on the ecosystem out of poverty. The community-based model that is being implemented in

Allen has been standardized and is treated as a panacea to the issues that local government units are facing. These issues of conservation and development are also mainly the concerns of managers, politicians and local elites hoping to capitalize on development. Subsistence fishermen are so marginalized that their concern is towards how they are going to manage a complex set of strategies to pull in enough to address just their basic needs. The communities that these fisherfolk are part of are also aware of the desperation of this situation and are generally more sympathetic to the plight of fisherfolk households than they are to political goals of conservation or restoration and the laws regulating resource use.

Any feasible long-term strategy for coastal resources has to find a way to address these issues in partnership with those stakeholders who most depend on them. Failure to address these issues is only expediting a collapse of the resources and dislocation of the coastal subsistence resource users. Based on this research I have made several recommendations on how the challenges to sustainable and collaborative management might be addressed by Allen, and other municipalities facing similar situations. They are an attempt to break from the theoretical, or abstract recommendations common to the collaborative-management literature, but they are also not specific to the point of being inflexible and will depend on an evolving local context.

My recommendations are: 1) Municipal coastal resource management programs need to have a holistic guiding structure. 2) Barangay Fisheries and Aquatic Resource Councils have to be created in such a way that they represent fisherfolk and provide a voice for stakeholders in the management process. 3) Fishing pressures have to be

alleviated if coastal resources are going to be able to recover. 4) There need to be long term goals by municipal leaders that keep programs on track and complementary.

Based on my experience working on community development and coastal management I do believe that these programs could have an impact on the social and ecological issues that municipalities are facing. Whether they are likely to happen is complicated. Empowerment is a noble idea, but certainly not novel and it requires power and resources be distributed away from those that currently attempt to monopolize them. Elites are a minority though and despite corruption in local politics it still takes an election for politicians to hold power. The Philippines is only a generation away from a national people's power movement that rested control away from the dictator Ferdinand Marcos in 1986. Therefore, it can be seen on a relevant time scale that peaceful, populist uprising against corrupt and oppressive regimes have happened on the national scale. Whether someone could serve to motivate and unite these sentiments in Allen is something I don't know but there are very intelligent and capable people serving as politicians and as community leaders in Allen who are aware of the issues and challenges that the community and the country at large are facing.

Fisheries policy at the municipal level is in an interesting and unique position in that it provides an opportunity to leverage existing legal and management frameworks in such a way as to open space for community participation in the management process. It is also unique in that this space could be opened from the bottom or the top and met accordingly. Managers could facilitate this process and work with communities to fill in the space, or stakeholders could form the structures and push for representation with the

legal backing national laws and regional organizations are in place to provide. A failure to achieve sustainable community-based management is not indicative of an inability to achieve these goals. An empowered fisherfolk community could contribute in a real way to a sustainable coastal socio-ecological system.

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